

# MARKETING STRATEGIC CHOICE FOR WIND POWER TECHNOLOGY IN CHINA

Case: Chinese domestic wind technology companies

LAHTI UNIVERSITY OF APPLIED  
SCIENCES  
Degree Programme in International Business  
Bachelor's Thesis  
Spring 2011  
Shi Yi

Lahti University of Applied Sciences  
Degree programme in International Business

Shi Yi

Marketing Strategic Choice for Wind  
Technology in China  
Case: Chinese domestic wind technology  
companies

Bachelor's Thesis of Degree Programme in International Business, 86 pages, 3  
appendices

Spring 2011

ABSTRACT

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There are almost 80 wind turbine manufacturers in China. However, the supportive government policies are the fact behind the rapid growth of those case companies. In reality, there are less than 10 Chinese wind turbine manufacturers with actual production capacity. Most of them lack core technology and depend in many ways on state patronage. The current situation is worrisome. Therefore, the correct comprehension of wind power market conditions and the consequent adoption of right marketing strategies are of vital importance for those case companies to survive in the fierce competition. Vestas as a market leader got success in China and has powerful marketing strategy. The study analyzes the large-scale wind power technology market in China, focusing on what can be learned from the marketing strategy of Vestas by Chinese domestic wind technology companies to achieve success.

The study is performed based on qualitative case study. The data has been collected from primary sources like company annual reports, interviews, and the observation of the markets by visiting wind technology companies, and secondary sources like books and articles. The theoretical framework consists of development of marketing strategy, strategy planning process and marketing mix.

Focusing on the strategic planning process, the empirical part of the thesis starts with an introduction of wind power market area in China. With comprehensive descriptions in both macro and micro environment, the objective is to discover what marketing strategy the case companies are employing and what problems the case companies are confronting. Based on benchmarking Vestas, the best marketing strategy thus drawn could lend the case company competitive edge.

In conclusion, the thesis thoroughly benchmarks the marketing strategy of Vestas. A personal recommendation is stated, focusing mainly on development of the marketing strategy of Chinese domestic wind technology companies.

Keywords: Chinese wind power industry, Wind power technology, large-scale wind turbine, marketing strategy, strategic choice

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## LIST OF ABBREVIATIONS

NDRC	The National Development and Reform Commission
CWEA	China Wind Energy Association
TWEA	Tianjin Wind Energy Association
GW	Gigawatt
MW	Megawatt
KW	Kilowatt
BMGI	Breakthrough Management Group International
VAT	Value-added tax
EUR	Euro
USD	U.S. dollar
SCADA	Supervisor Control and Data Acquisition
COSCO	China Ocean Shipping (Group) Company

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# 1 INTRODUCTION

The study aims to find out suitable marketing strategies for large-scale wind power industry development in China. The introduction part of the thesis, will present the background of this research, pointing out the reasons for choosing this subject. Furthermore, a brief introduction to the theoretical background and the research methodology is chosen, an explanation of the objective, research questions, and limitations of this study are given.

## 1.1 Background

China is a country with a rapidly growing economy and faces great stresses on the resources and environment. As the world's most populous nation, the energy consumption is increasing sharply. The resources of coal, oil and gas are limited. In the situation of global warming, it has become a consensus of China to develop low- carbon economy. Wind power as a renewable technology is becoming the fastest- growing industry sector in China. Chinese wind power capacity doubled annually in the last four years. The Shanghai Daily newspaper wrote that the Chinese National Development and Reform Commission had been discussing the possibility of raising the goal for accumulated wind energy in 2020 from 30GW to 100GW(Shanghai Daily 2008). Wind turbines now offer a renewable energy source to the world parallel to oil and gas. The potential savings in CO<sub>2</sub> emission are enormous and wind energy can help China to fulfill the Kyoto protocol and create the green image related to it.

With the vast natural and industrial resources, strong political will and improving incentives are increasing number of manufacturers which enter wind power industry in China. The competition becomes fiercer. There are almost 80 wind turbine manufacturers in China. Most of them are limited in high technology, correct understanding of wind power market and right marketing strategy. They will meet problems of annexation or being obsolete in the fierce competition.

Overall, there is a need for finding its way to improve the marketing strategies for big-scale wind power companies to win in the fierce competition.



The first wind turbine in China was installed by Vestas in 1986. The author did the practical training at Vestas in China and visited the wind turbine manufactory in 2010. During that time, she saw the advanced production process which Vestas in China has. On the other hand, she also heard the weakness of Chinese domestic wind technology company through internet. She started being interested in why Vestas can get success in China. Because of climate change is the most important issue our generations face. Wind technology as a renewable industry can help China and the world to improve this problem. She wants to research if there is any way to improve the marketing strategies for Chinese domestic wind technology companies.

## 1.2 Objective and research questions

The aim of this study is analysis of the possibility that Chinese domestic wind power companies can learn the marketing strategy from Vestas.

In reality, the thesis is based on the company Vestas wind technology (China) Co.,Ltd. Vestas as the market leader in the wind technology industry and is No.1 in modern energy and has a complete marketing strategy. Vestas built the world's largest integrated wind power production base at Tianjin, China and started the battle for China. Vestas became a major competitor among Chinese wind power manufacturers in China. When there is a strong competitor like Vestas, Chinese domestic wind power companies can know the weakness of their marketing strategy. The researcher will benchmark what kind of marketing strategy makes Vestas succeed and lead the wind power market. This focuses on the marketing mix analysis and business model. Then the author will find the possibility about which marketing strategy can be chosen in Chinese domestic wind technology companies. More detailed analysis of the company is included in the empirical part in chapter 4 of this thesis.

Based on the above introduction and problem discussions, the research questions for my thesis will be:

### *Main questions:*

What is the best marketing strategy of wind power technology industry in China?

*Sub questions:*

- What kind of wind power market area is China?
- Who are the best key account prospects?
- What is the powerful marketing strategy of Vestas and what are weaknesses of Chinese domestic wind technology companies?
- How to benchmark Vestas with possibility that Chinese domestic wind technology companies can learn from it?
- How to make the product meet the market's need.
- What would be the best pricing strategy in the market?
- What kind of promotion methods do the customers value?
- How to build the profitable relationship between the customer and the wind power company?

### 1.3 Research methodology

This part aims to clarify the research methodology. Different perspectives related to the research are discussed in the following paragraphs. It includes study design, research method and method of data collection.

The research approach in the thesis is written mainly based on the qualitative methods. The research is a case study, mainly based on the fact of the five months' practical training at Vestas. The author had studied academic literature and relevant parts of marketing strategy and Chinese wind power technology industry.

The main research methodology is benchmarks of the marketing strategy of Vestas in China. Finding the best marketing strategy thus drawn could lend the case companies competitive edge.

Furthermore, Porter 5 force and PEST analysis were used in this study. It will make a clear understanding both for micro and macro environment in China wind power industry. SWOT analysis is used for wind technology company analysis and key account analysis. Additionally, the method of questionnaire is employed for the case activity in the part of performance measurement.

Lastly, the method of data is collected as an implementation tool for qualitative approach. With respect on the thesis research, the essential data can be found from

the sources which are collected throughout the secondary data, such as using internet sources for the relevant knowledge of wind power industry. The researcher also tried to meet local officials for further research questionnaire for this thesis.

#### 1.4 Scope and limitations

The scope of research in wind power industry was based on the data collected during the author's practical training. In China, Vestas is a wind technology company, which means they just sell wind turbines not wind energy. Also, the case companies are wind technology companies. Wind Power is the conversion of wind energy into electricity by wind turbines. This energy is mostly generated by wind farms, where many wind turbines are placed together in high wind areas. The research concentrates only on large-scale wind technology.

Large-scale wind turbines >100KW

Middle-scale wind turbines: 10KW-100KW

Small-scale wind turbines  $\leq$ 10KW

The interviews and analysis focus on the wind technology companies. The study will not mention the financial part of wind technology companies. The marketing mix part of pricing also focuses on the pricing strategy. This study does not include financial data analysis. The author will analyse how to make the wind turbines meet the customers need. That part focuses on which production strategy can be used to develop case companies. The study does not include finding professional knowledge of technology for the case companies. The benchmarking analysis of Vestas is focus on the strategy which Vestas used in China. Meanwhile, the product produce is also relevant Vestas battles in China.

Since the research is done with qualitative methods, most of the data is collected by observing the marketing, through personal experience and personal interviews. The chosen marketing strategy will be more or less subjective.

#### 1.5 Thesis Structure

The thesis structure is comprised of two parts- theoretical framework and empirical study. Primarily, from the starting Chapter 2, there is a discussion of the theoretical background of the studies. The term of general marketing strategy and strategic

planning process are discussed. The section gives the basic understanding of the approach.

As marketing strategy is developed in a company starting with situational analysis. The following Chapter 3 will specify what kind of wind power market area is China. The author will find the weakness point of the case companies before benchmarking Vestas' marketing strategy. With comprehensive descriptions in both macro and micro environment, the aim is to analyze "Where are we now?" The knowledge about situational analysis and key account analysis mainly concentrates on the problem of secondary data collection.

Later, in Chapter 4 the author will benchmark the marketing strategy of Vestas and make a clear understanding of "where do we want to be". It includes the strategic objective and Vestas' marketing mix. In the end of Chapter 4, the author will make a summary of Vestas' marketing strategy. The study of Vestas is focused on the practical training days and interviewed of the people who work in Vestas Wind technology(China) Co.,Ltd.

Whereafter, Chapter 5 will answer the question "How will we get there?" The author will find the possibilities that the case companies can learn from Vestas. After that, the author will evaluate a new marketing strategy for Chinese domestic companies and develop strategic plans for the correct accounts. Finally, a personal recommendation is stated mainly focused on the idea of "How will we get there"

Last but not least, Chapter 6 finishes off the thesis with a summary. The following figure illustrates the thesis structure, with note that numbers attached with some titles indicating chapters.

## Marketing Strategic Choice for Wind Power Technology in China

### THESIS CHAPTERS    MODELING PHASES    DEISSCUSSING POINTS

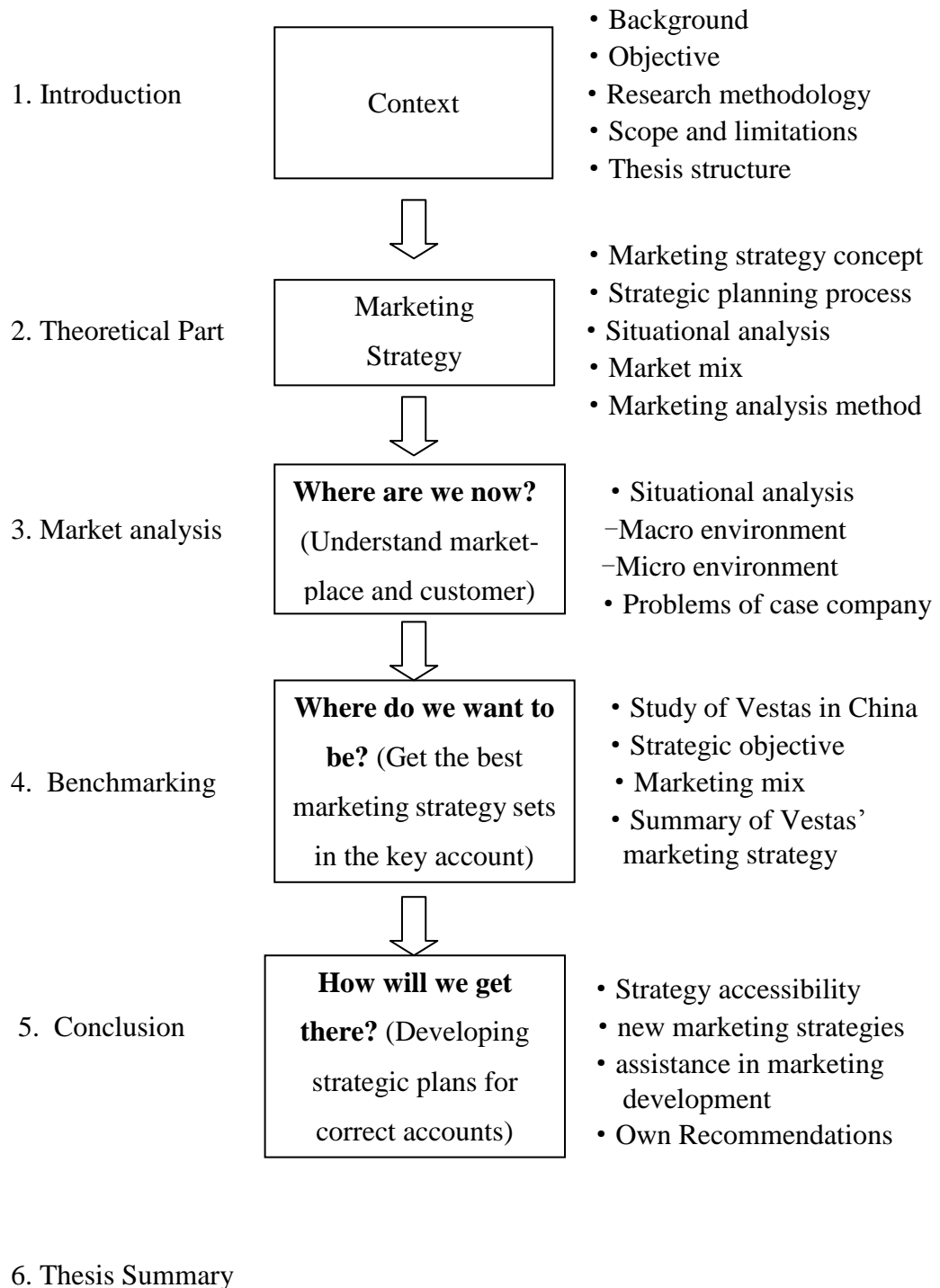


Figure1- Thesis structure

## 2 THEORETICAL FRAMEWORK OF MARKETING STRATEGY

### 2.1 Concept of marketing strategy

Originally, the word strategy comes from the Greek word *strategos*, strictly meaning a general in command of an army. The word 'strategy' appeared for the first time in the business literature in 1952 in a book by William Newman. At that time, strategy was implicitly regarded as a plan for achieving organizational goals. (West, Ford & Ibrahim 2010, 36)

There is no singular definition of strategy. The following table comes 5Ps for strategy.

Table 1. The character of strategy (Mintzberg 1988)

Strategy as plan	-Some sort of consciously intended action -a general guideline
Strategy as a ploy	-a trick to outwit your competitor
Strategy as pattern	-a consistency in behavior whether or not intended
Strategy as position	-the place in the environment, where the resource concentrated.
Strategy as perspective	-a collective intuition about how the market worked

Marketing strategy has been a subject of considerable research in both the business and marketing literature over the past four decades. It becomes important even greater in today's fast changing business environment. With reference to the introduction, Kotler (2001, 71) explains that "a marketing strategy is the marketing logic whereby the company hopes to achieve its marketing objectives. It consists of specific strategies for target markets, positioning, the marketing mix and marketing expenditure levels."

Aaby & McGann (1989) have defined marketing strategy as one part of a corporate strategy. It should always have the link to the company's mission, vision and objective of the corporation, and where the organization wants to go to.

According to Cravens et al. (2009) pointed that, the development of marketing strategy in challenging business environment requires forming a strategy vision and selecting the market targeting and positioning strategy for each market target. At the centre of the process is the understanding of the marketing environment and competitive space. (West, Ford & Ibrahim 2006, 34) It is relevant to the main goal of this study. The author will use this way to develop marketing strategy for the Chinese wind power technology industry.

Marketing management is obtained for purposes as the marketing strategy implementation processes of creating the value (production strategy), communicating the value (promotion strategy), and delivering the value (place strategy). This is relevant to the marketing mix part. Figure 2 shows the implementation of marketing strategy which includes process, mix, and program designed to create, communicate, and deliver the value (Ansary 2006).

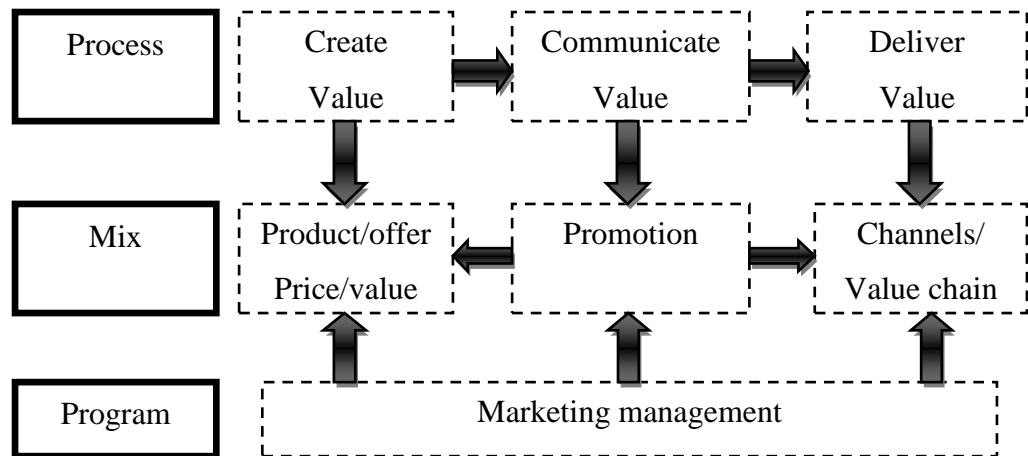


Figure2. Marketing strategy implementation (Ansary 2006)

## 2.2 Strategic planning process

The first level of marketing strategy is company's strategic planning. It requires developing a strategy to meet fierce competition and ensure a long term growth.

Greenley( 1989) has reported that the marketing emphasis in companies is being placed on the marketing tactics of short-range operational planning...full consideration of marketing strategy is of equal importance, not only to contribute to

future performance and success, but also to provide a framework for the operation of the annual marketing plan.

The case companies have product quality problems nowadays. Jarrer and Aspinwall (1999) suggest that initiatives such as total quality management often fail due to lack of strategic business planning (O'Regan & Ghobadian 2002). Hence, it is necessary for the case companies developing strategic planning to ensure a long term growth.

The first step in strategic planning is established a clear vision and mission of company. A clear mission statement acts as an "invisible hand" that guides people in the organization. Successful companies always answer carefully and completely the questions like: What do customers value? What should our business be? A market-oriented mission statement defines the business in terms of satisfying basic customer need. (Kotler et al 2001, 49). In order to answer what do customers value, a company need to know who is the target customer. In this study, a customer analysis will be introduced in Chapter3. The second step is setting company objectives and goals. The company's mission needs to be turned into detailed supporting objectives for each level of management as the figure of marketing strategy implementation shows. Not only the overall strategic planning of company but also the actual marketing strategy. It provides the framework out of which marketing strategy should be developed. Finally, is designing the business portfolio which is a major activity in strategic planning. It means find a successful way in which the company can best use its strengths to take advantage of attractive opportunities in the environment and win in the competition. (Kotler et al 2001, 54)

According to the strategic planning process, the author wills go through internal and external analysis, performance gap analysis by using benchmarking then make a choice of corporate strategy.

### 2.3 Situational analysis

The model for situational analysis organizations is classified in two ways. First is establishing blocks of factors that determine the relationship between the company inside and the surroundings. Secondly, it describes the situational factors through



their particular characteristics with emphasis on the process of cooperation between dependent and independent variables. (Todeva 1997)

In this study, the situational analysis involves in two parts: the analysis of the micro or the competitive environment and macro environment. Trim and Lee (2008) note that the strategic marketing concept is attitude of all-embracing, flexible and adoptable. It requires that marketing managers ensure the organization achieves a sustainable competitive advantage in its environment through a structured approach to planning and strategy formulation (West, Ford & Ibrahim 2006, 71). In order to make right decisions for the marketing mix and marketing strategy, a company need to recognize all the factors that may influence on the marketing of the company's internally and externally.

Because of the business must fit in around the environment in which they operate and grow, before find a new marketing strategy for Chinese domestic wind technology companies, the researcher wills make a clear analysis of wind power technology market in China in Chapter 3.

Firstly, the **micro environment** is internal factors close to the company that have a direct impact on the marketing strategy. This can be done by using Porter's five forces model which takes full account of the competitive forces that shape the wind power technology industry structure, Michael Porter provided a framework that industry as being influenced by five forces. Porter (1980) pointed out that the aim of competitive strategy for business operations is to find a position in the industry where a company can best defend itself against these competitive forces (West, Ford & Ibrahim 2006, 81). The author will use this model for further analysis "Where are the case companies now?"

The following Figure 3 is the original figure of Porter's 5 forces. The author will use this outline for wind power technology industry analysis.

Diagram of Porter's 5 Forces

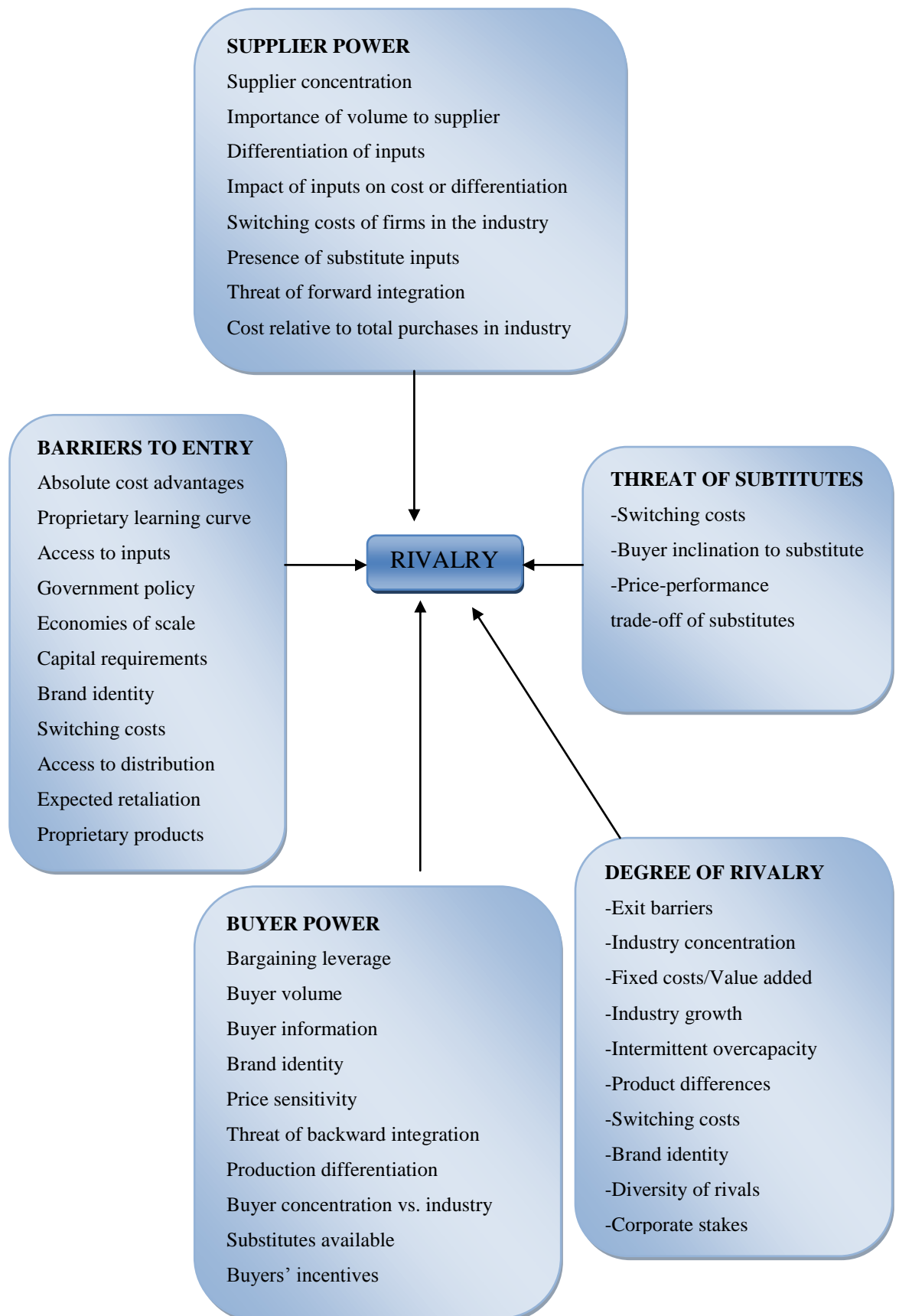


Figure3. Porter's Five Forces – a model for industry analysis (QuickMBA 2010)

The **macro environment** can be clustered in a variety of ways. One strategic tool to analysis macro environment is PEST model, which includes political, economic, social and technological. A PEST analysis is a useful way of understanding clearly about the customer's trading environment.

PEST analysis is an availability tool for putting the right effort into strategic planning process. It is focus on outside environments and for identifying core strategic issues needed to focus on providing a better strategic plan (Businessballs, 2011).

### Political

A change of government affecting business even helps for some sectors of industry. Political factors influence marketing strategic planning because market planners need to take account of changes in the political orientation of the country. (Blythe& Megicks 2010, 83) In the practical part, the author will explain what kind of political system China use in wind power industry and which polity will supporting the wind technology companies.

### Economic

The micro economy is therefore about the relationship between what customers demand and what is available for them to buy. Macro economy meanwhile, deals with overall demand in the economy of a country. The factors include the cost of imports and exports. In the economic environment part, the author will analysis about macroeconomic environment in how it influences the wind technology companies. Furthermore, interpret the economies influence wind technology industry development in China and also the effect for wind power technology companies.

### Social

The societal factors relate to the health and rights of employees, changes in tastes and buying patterns, etc. This wind power industry will focus more on responsible business which include the rights of employees.

### Technological

The technology part for the industry park is like energy uses, health, waste and recycling. The technological factors of wind power is relate to the R&D activity, the rate of technological change and technology incentives.

## 2.4 Marketing mix

In the early 1980s, marketing strategy was seen as being an indication of how each element of the marketing mix will be used to achieve the marketing objective.

According to this view, marketing strategy was defined as ‘the board conception of how product, price, promotion and distribution are to function in a coordinated way to overcome resistance to meeting marketing goals’ (O’Shaughnessy 1995).

Marketing strategy implementation processes is deploying the marketing mix to create customer value, communicating value, and deliver the value (Ansary 2006).

The company wants to design and put into action the marketing mix that will best achieve its objectives in its target markets. The marketing function audit is concerned with the marketing mix. (Blythe& Megicks 2010, 71) This part analysis the author will use the 4Ps model for benchmarking Vestas marketing strategy.

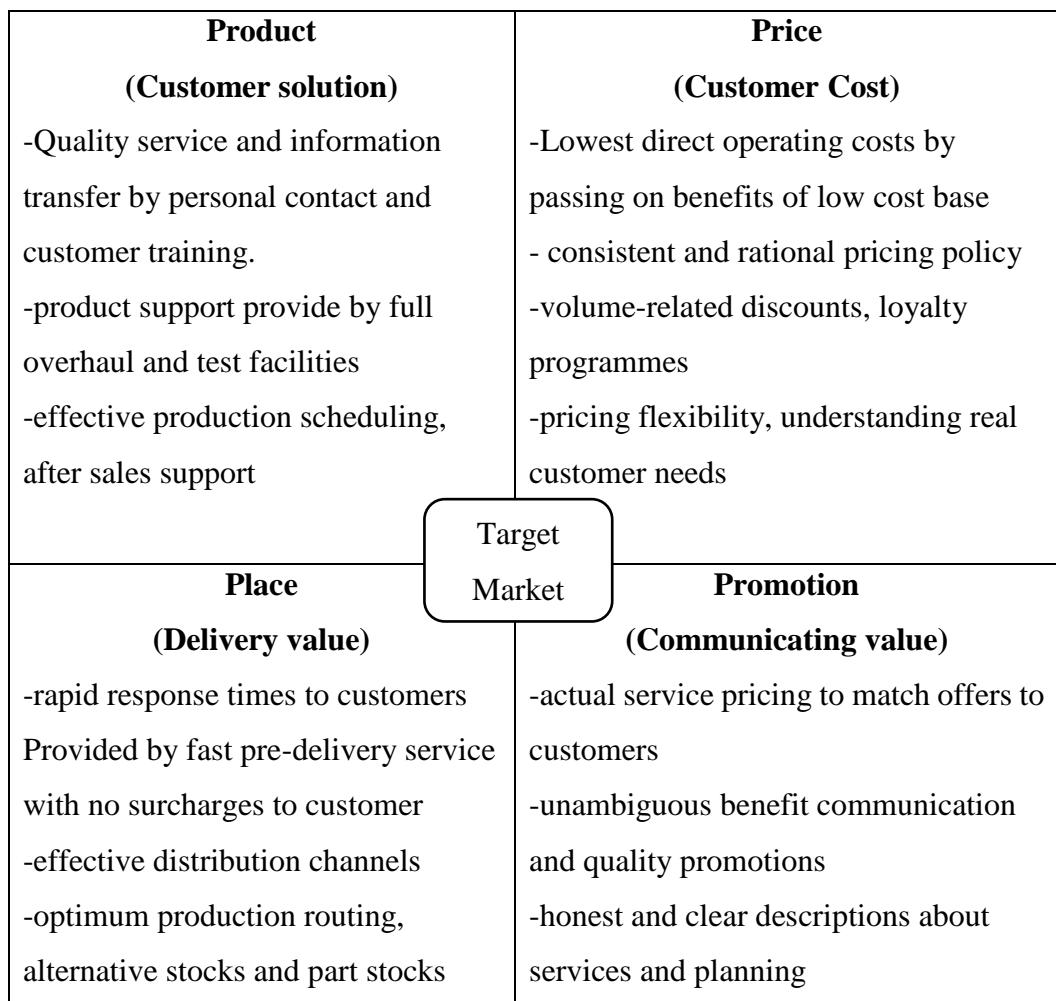


Figure4. The Marketing Mix- a worked example (Bennett 1997)

Nowadays, the 4P's have been developed into the 4C's to replace that concept. Market planners would do well to first think through the 4Cs and then build the 4Ps on that platform (Kotler & Armstrong, 2001, 68). 4Cs are defined as customers, (who buy the product in the market place), competitors, (who provide the choice of alternative sources of supply), capabilities and company, (both of them refer to the organization which has the ability to satisfy customer needs). (Bennett 1997)

The study will go through marketing mix concept, the most recent version of which includes 4P's. Benchmark the product, price, promotion and place strategies which Vestas use, and find which strategy is suitable for Chinese domestic wind technology companies to create perceived value. These are the decisive factors that the marketing manager can control.

In this case, the relevance of the 4P's can be estimated by using the data of Vestas annual report, Vestas inside magazines and also the interviews during the author's practical training days. The theoretical part only gives a foundation for the relevant consideration. About how to use the parts of the theory and implement the suitable marketing mix will be answer in the empirical part.

### **First P- Product**

The first P is product. Product is a key element in the overall market offering (Kotler et al 2010.248). In general, good products will sell themselves. It developed to customer need and create customers value. It should define the characteristics of product and how does it meet customer's needs.

Kotler (2010) define product as "Anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need. It includes services, events, persons, ideas or mixes of these." Recently, quality of the product perceived by the customers may be a complex combination of the actual quality of the product that customers' views of the overall quality reputation of the firm (Waller & Ahire 1996).

Moreover, the product part needs to give more attention to services which includes satisfaction offered for sale and benefit. Companies market experiences realize that customers are really buying much more than just products. Moreover, they are

buying what those offers will do for them. (Kotler et al 2010, 249) Creating a value for the customers and managing customer experience is the key element in this product part. Each product situation presents unique opportunities for the business marketer. Product strategy rests on the intelligent use of corporate capability (Hutt& Speh 2007, 219). In Chapter 4, the researcher will further explain the product strategy of Vestas use in China, which includes how to improve product quality and building a strong brand strategy in order to creating value for Chinese customers.

Nowadays, some Chinese wind technology companies have quality problems. If a firm's quality efforts result in tangential improvements but no real improvement in the quality of its products, customers switch to other products immediately (Zeithaml 1988). Product quality is the most important part for creating customer value. Companies need to take into account the dynamic needs for their customers in order to compete effectively (Shepetuk 1991).

Furthermore, the certification of product makes a standard for the company to improve the product quality. For example, some international organization makes an official test for wind turbines and gives the certification to the wind technology companies. That is what customer wants to see before buying wind turbines. The International Electro technical Commission is a worldwide organization for standardization comprising all national electro technical committees. The object of IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields.

International standard IEC 61400-1 has been prepared by IEC technical committee88: large-scale wind turbines. It consists of the following parts,

- design requirements
- acoustic noise measurement techniques
- wind turbine power performance testing
- measurement of mechanical loads
- declaration of apparent sound power level and tonality values
- measurement and assessment of power quality characteristics of grid connected wind turbines

IEC 614600 specifies essential design requirements to ensure the engineering integrity of wind turbines. The purpose is to provide a suitable level of large-scale wind turbine protection against damage from all dangers during the planned lifetime. (IEC 2011)

## **Second P- Price**

Give people product of value then they will happily pay for it. Kotler (2001) defines price as “the sum of all the values that customers give up in order to gain the benefits of having or using a product or service.” Historically, price has been the major factor affecting customer choice. However, price still remains one of the most important elements determining a firm’s market share and profitability. (Kotler et al 2010, 248)

According to this case, price can be a very complex area. Wind power technology is a costs industry. It needs enough money for entry into this industry. Under the fierce competition, increasingly manufacturers decrease price to get more inside track. Test various pricing levels of new products and find the right price level that maximizes the company profits can reach the goal of customer value. Have a good pricing strategy can match the mission and vision of a company.

There are different price setting strategies:

**Marketing- Skimming Pricing:** Setting a high price for a new product to skim maximum revenues layer by layer from the customer segments who willing to pay the high price. The result of this pricing strategy is the company makes fewer products but more profitable sales.

**Market-Penetration Pricing:** A company may set a low price for a new product in order to attract a large number of buyers and a large market share.

(Kotler et al 2010.337)

The competition between the Chinese wind power technology companies is strong. Nowadays, the price competition becomes crazy. All the companies need to respond to Price Changes. When a competitor cuts price, a company’s first reaction may be to drop its prices as well. But this gives the wrong response and even bad influence for the whole wind power industry.

Instead, Kotler point that, the company may want to emphasize the “value” side of the price-value equation, if lower price has no negative effect on the company’s market share and profits. Then the company could hold current price and continue to monitor competitor’s price. On the other hand, respond the negative effects, the company may have 4 solutions:

- Reduce price
- Raise perceived value
- Improve quality and increase price
- Launch low-price “fighting brand” (Kotler et al 2010.350)

A company could reduce price to match the competitor’s price. It will reduce the profits in a short run. Some companies might also reduce their product quality, or marketing communications to retain total profit margins. This will give a very bad influence for the company even for the whole industry. The things a company needs to think is about the social responsibility and maintain its quality as it cuts prices. Alternatively, maintain its price but raise the perceived value of its offer will improve its communication and operate at a lower margin. A successful company always improve product quality to increase price, creates a great customer value and moving its brand into a higher price-value position. If the particular market segment being lost is price sensitive and will not respond to arguments of higher quality, then launch a low price “fighting price” is necessary. (Kotler et al 2010.350). A company need to response by analysis their modality then gives a right price level.

### **Third P-Promotion**

The promotion mix as well as marketing communications mix, consist of advertising, sales promotion, personal selling, public relations, direct market that the company uses to increase the awareness of customers and builds customer value. (Kotler et al 2010.426)

Promotion mix strategies include push promotion or pull promotion. Large companies always use both of push strategy and pull strategy. A push strategy



involves using the sales force and trade promotion to push the product through marketing channels. The producer promotes the product to channel members who in turn promote it to final consumer. A pull strategy is spending lots of advertising and consumer promotion to induce final consumers to buy the product. (Kotler et al 2010.444) There are many factors influence company design their promotion mix strategy. Shortly speaking, B2B companies use push strategy and B2C companies “pull” more. Most large companies use both the promotion mix strategy.

Promotion is a side of the **communication** process with customers. Integrated marketing communications is clearly influenced by the relationship perspective in marketing. Integrated marketing communications is not the same as relationship marketing, but it is an important part of a relationship marketing strategy (Duncan and Moriarty, 1999).

Kotler(2008) has defined “There is no other area of marketing is changing profoundly as marketing communication. It becomes a really hot marketing topic these days.” The integrated management of marketing communications activities is required in relationship marketing (Grönroos 2004).

Mercer (1996), in emphasizing that communication must be a two-way process, he says: “ The ideal form of promotion is the conversation which takes places between the expert sales professional and customers. It is interactive and conversation is specific to the needs of both”. The design of suitable communication strategies involves a number of considerations. Firstly, a company needs to make a goal about what will be achieved. It requires considering what kind of marketing message could be send to the buyer. Secondly, a firm needs to consider how to achieve this goal which includes the design of the promotion mix. Finally, in order to make sure whether the investment in promotion has been worthwhile or nor, it requires the company analysis the outcome of promotional endeavors (Rowley 1998)

The buyer knows the brand and the media strategy is only to remind them a product. In this study, the author will focus on developing a promotion strategy that increases the customers awareness in the segments, such as choosing a right media for wind power technology company development. After identify the target

customer and analysis both the trend and demand, team up in communication planning. Then the promotion mix can be integrated.

#### **Fourth P- Place**

Place usually relevant to channels of distribution. As distribution strategy plays an important role to make sure the application of the product in the marketplace, the distribution strategy employed by the innovator would impact the nature of “market support” capability that can be provided to the innovation (Sikdar&Vel 2010).

Hence, the needs of distribution depend on not only place but also customer needs and product offerings. Channels of distribution are how product knowledge reaches the customer. There are many factors affect the distribution strategy. Such as customers behavior, product characteristics, company competitive strategy and degree of control desired. Using various channels to distribute products and services could increase market coverage, lower channel cost or logistics cost and provide more customizable selling.

There are some rules of distribution by David Arnold that the companies need to follow when build place strategy.

1. Select distributors. Don't let them select you. In this study, the author will benchmark the partners of Vestas and how does Vestas select distributors in Chapter4.
2. Look for distributors capable of developing markets, rather than those with a few obvious customer contacts.
3. Treat the local distributors as long-term partners, not temporary market-entry vehicles. For example, Vestas as a Danish company has almost 150 suppliers in China and make a long term business relationship with them.
4. Support market entry by committing money, managers and proven marketing ideas.
5. From the start, maintain control over marketing strategy. Vestas as a successful company use localization strategy in China. All the place strategy is based on this strategy. For example, Vestas opened factories in both North and South China. More detail will talk in Chapter4.

6. Make sure distributors provide you with detailed market and financial performance data. This also related to the communication with partners and supply chain visibility.

7. Build links among national distributors at the earliest opportunity. A company may train some specialist dealer works in the sales organization to reach this goal. (David Arnold.2000)

## 2.5 Marketing analysis methods

### 2.5.1 Benchmarking as strategic planning tool

The definitions of benchmarking are various. Key themes include measurement, comparison, and identification of best practices, implementation and improvement. “Benchmarking is the search for the best industry practices which will lead to exceptional performance through the implementation of these best practices” (Camp 1989).

Philip Kotler explained: An international corporation is at least ten times as good as an ordinary one in terms of effectiveness, efficiency and cost performance.

Benchmarking is an art enabling its possessor to do better in corporate operation than the rest of the corporations. (onlyit.2010)

There are various types of benchmarking. In this study the author wills use strategic benchmarking, which means where the case companies need to improve overall performance by examining the long-term strategies that have enabled high-performers to succeed (tutor2U. 2010). In this study, core competencies, developing new products and improve services will talked later in practical part.

The benchmarking process will go through indentifying the benchmarking subject, in this study means Vestas, then determining data collection method and collect data from annual report and interview, determining current competitive gap between Vestas and case companies, communicating findings, and developing action plans in the conclusion part(Anand& Kodali 2008).

Vestas is the market leader in wind power industry. Using benchmarking as a market strategic tool will determine and compare the business strategy with

competitor. The author will benchmark Vestas marketing strategy and find the best marketing strategy to lend the case companies competitive edge.

The process of benchmark in this study will go through the following parts.

- (1) Understanding in detail existing business processes in China's wind power industry
- (2) Analysing the powerful business processes of Vestas build in Chinese market
- (3) Comparing Chinese wind power company business performance or strategy with Vestas.
- (4) Implementing the steps necessary to close the gap between the case companies service and target demand of consumer.
- (5) Making the market demand, competitiveness and setting goals to improve the marketing strategy of Chinese domestic company.

#### 2.5.2 Key Account Analysis

In today's fierce competitive markets, growing numbers of companies realize that building a good relationships with correct key accounts is the key to success.

Understand of how to make a key account strategy work will help to increase the competitiveness of a company's business model. KAM simply makes company more professional in company's approach to use as a customer. (CEIBS 2011)

The following figure represents how to develop key account management strategy. All starts with a clear customer analysis, which means the company needs to know what customer need. Then, a company may develop skills and capabilities. Finally is delivery of solution. The most important thing is to be a partner not just a supplier.

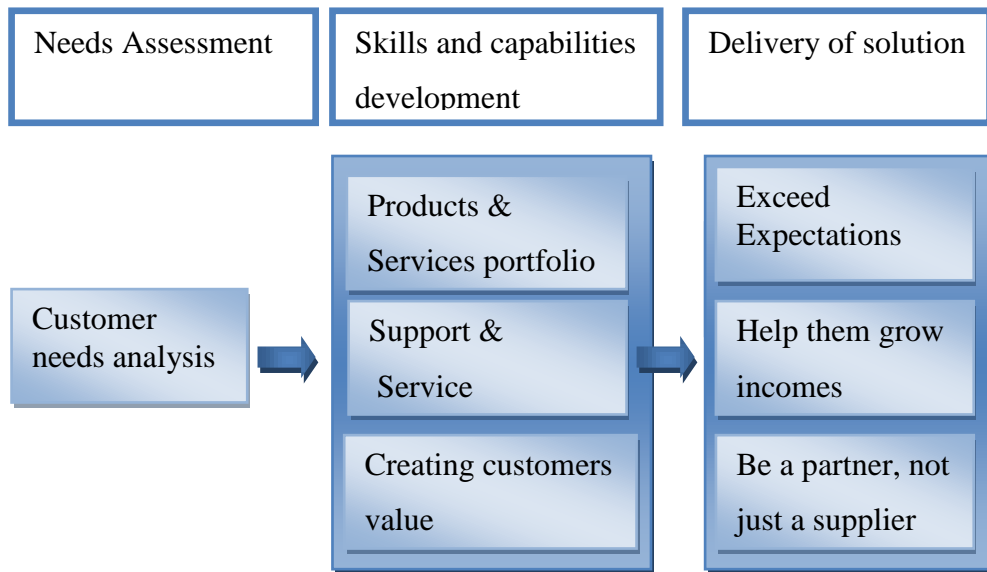


Figure5. Key Account Management Strategy Development (iProceed.2011)

KAM brings advantages to a company. For instance, the world-class wind power companies like Siemens, GE and Vestas have had KAM for a long time. The vice president of EDF-Energies Nouvelles said “I have been working with Vestas for 8 years and can testify that this company has experienced good and bad times, but the progress in recent years has been exceptional. Bravo to Vestas and bravo to key account” (Vestas inside 2010.31)

Key account management is utilized by multinational companies. It allows the company to identify customers who are the best key account. Later, the company will analyze the prospects and make direct dialogue with these customers to present them new investment opportunities. Therefore, key account management is crucial in implementing marketing strategy. There are various positive effects by using KAM. For instance, it provides a more professional approach to customer relations. Moreover, it could also increase customer loyalty and improve company's competitive strength in an increasingly challenging marketing.

On the other hand, key account management is advisable to several kinds of relationships, but the manifest is when supplier and customer have a mutually recognized partnership and degrees of trust (McDonald & Woodburn 2007.1) This can be built by marketing communication and direct dialogue with customers.

Getting the best marketing strategy sets in the key account is important for the case companies. In the customer analysis part, the author will help the case companies to find which the strategic customers are.

### 2.5.3 SWOT analysis

Another research methodology of the study can be evaluating through SWOT analysis. In chapter 5, the author will analysis wind power industry development in a city in China by using SWOT. Therefore, this had seen as the development of long-range plans for the effective management of the external opportunities and threats for the case companies development in that city. The author wills analysis the few things outside the direct control that have had, and will have, an impact on this part of the company's business. While on the other hand should be analysis the strengths and weaknesses part.

## 2.6 Summary of the theoretical framework

As a summary of the theoretical framework, the key focus in this study is the marketing strategy. A successful marketing strategy brings company win in the strong competition. Develop an understanding of marketing strategy starts with a clear mission and vision. The process will go through the present situational analysis and marketing mix. This will clear understand the marketplace and customer. In focus of "where are we now?" Then the author wills benchmark the market leader to get the best marketing strategy. In focus of "where do we want to be?" Finally, develop strategic plans for the case companies reach the goal of this study.

In the next chapter, the author will research what kind of wind power market area China is through situational analysis.

### 3 MARKET ANALYSIS

This part is focusing on understanding marketplace and customer. A company has to analysis the different factors operating in the wind power technology industry. In this study, the situational analysis is evaluated using the Porter's five forces model and PEST analysis. A comprehensive explanation of Chinese wind power technology market was as follows:

#### 3.1 Competitive Rivalry

##### 3.1.1 Rate of market growth

Chinese wind technology industry is the fastest growing one in the world. There is strong growth despite the world financial crisis. Total installed capacity has been doubling for the last four years and now tops over 26 GW. According to the statistics, China is the most dynamic market in terms of the market of wind power. The Chinese wind power generation reached 26 million KW in 2009, twice more than the previous year.

Under the 12th Five Year Development Plan, the Chinese government expects to increase wind generation capacity to 50 GW by 2015. Recently the China government revised upward its future wind power capacity goals (NDRC 2010):

- 2010: 30 GW
- 2015: 50 GW
- 2020: 100 GW

China's installed wind power capacity is doubling annually. Driven by this plan, the wind industry will definitely see a tremendous growth in the next five years and should present huge opportunities for both domestic and foreign firms.

As there are many industry parks needing to reach the utilization rate of renewable energy, the demand for wind power is high, so the demand for turbine installed is also very high. For example, Vestas has already installed 2085 wind turbines in China. And the quantity in global is 41,417 items. (Vestas China.2010.June)

The following graph below shows the increase trend of wind turbine installations in China. It has already been meeting and exceeding nationally set goals from the renewable energy laws.

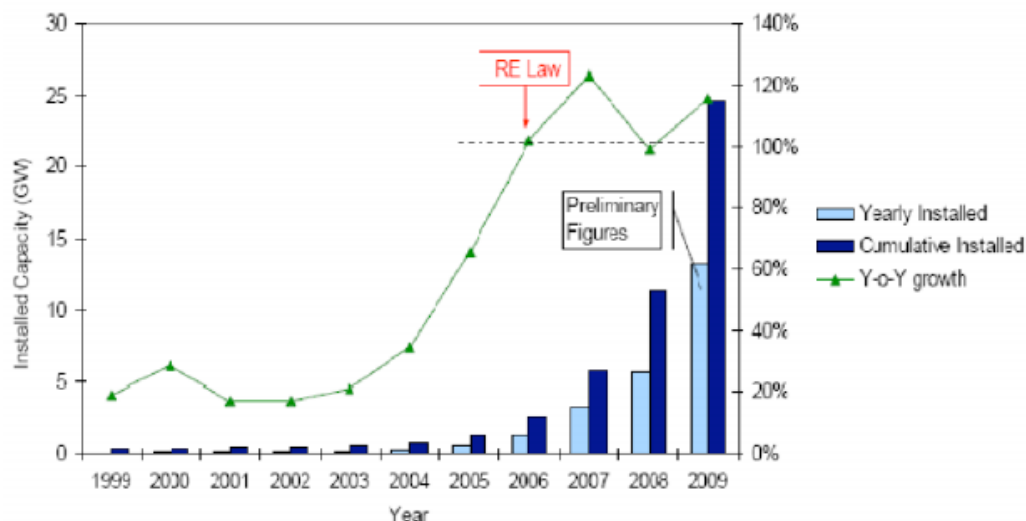


Figure6. China wind turbine installations (AZURE international 2011)

The high rate of market growth is influenced by political factors. A comprehensive explanation of political factor was as follows:

### 3.1.2 Political factors

With the huge growth rate of the industrialization and environment pollution, China has the incentive policy for supporting the development of wind power. In the process of developing low-carbon economy and promoting the development of renewable energies, the great effort made by the Chinese government is also universally recognized.

Government policies have supported the rapid growth of the wind power technology industry. The support includes direct subsidies such as VAT rebates, corporate tax incentives and R&D subsidies. For example, there are tax breaks applying to producers and consumers of wind power. The government has begun refunding VAT and import duties on wind turbine parts and materials in order to improve the renewable energy environment. (frankhaugwitz2010)

According to the government reports, Chinese government has promulgated various policies for supporting wind power development. For instance: In 2010,



NDRC published the notice on wind power of pricing policy. It points that the whole country will be divided into four categories of wind power resource areas according to the situation of wind power resources and engineering construction conditions, and then the corresponding wind power electricity price benchmark will be fixed. (NDRC 2010)

Meanwhile, the government's objectives for the 12<sup>th</sup> Five Year Plan (2011-2015) in terms of ecology are very ambitious. It incentive cleaner sources of energy such as wind power and set a target about 20% reduction of energy consumption per unit of GDP.

In addition, The Chinese government is considering a project entitled "Three Gorges of wind" which consists of the construction of 6-base wind power production capacity of 10 million KW each. However, given this rapid growth, some experts are afraid of the overcapacity and the product quality may decrease.

The following figure comes from NDRC; it shows the Chinese government giving a great incentive to the non-fossil energy especially in wind power.

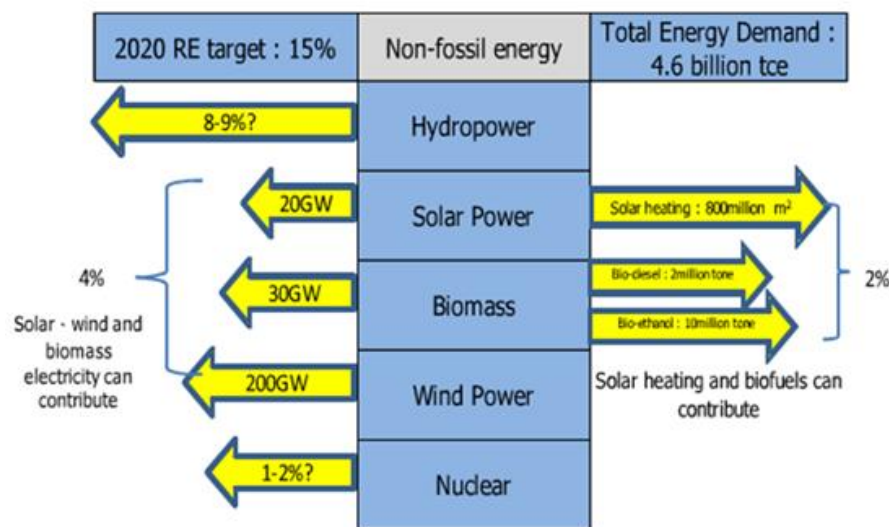


Figure7. Strong policy support in wind power (Dr. Bruce Yung 2010)

As these kinds of policies promote building more industrial parks, the wind technology companies can find more places for sourcing the wind turbines.

In China, there are two designated associations that govern the development of wind power industry. Both of them should be considered as key stakeholders in the domestic wind power industry. Therefore, wind technology companies need to build solid relationship with these associations.

#### CWEA

Chinese Wind Energy Association plays an active role in the development of the Chinese wind market. It acts as a bridge between the Chinese Government and the wind technology industry. The organization functions as a platform for the exchange of knowledge and technology between the players in the sector.

(Win[d], 2008, 25)

#### TWEA

Tianjin Wind Energy Association is the first professional local association in China. The organization helps wind technology companies find the opportunity to expand their market. The leader manufacturers and major suppliers will participate in the forum of TWEA. It is a good time to communicate with different groups.

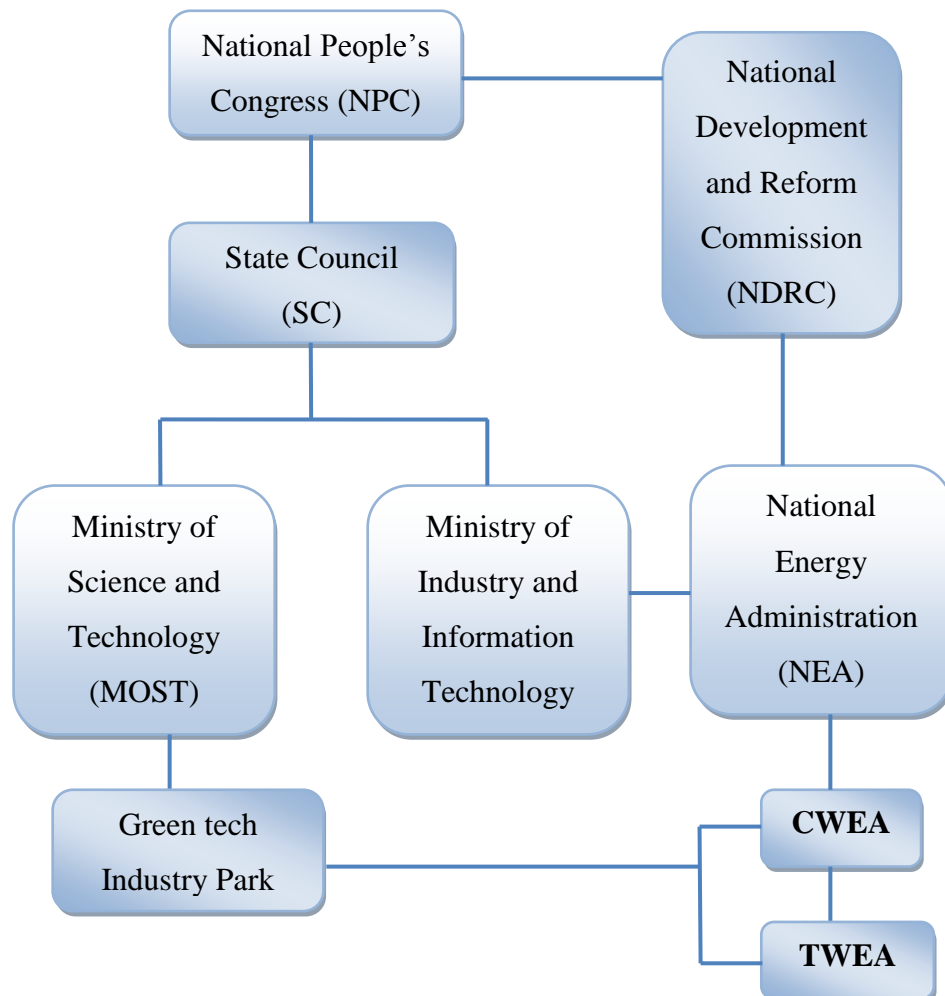


Figure8. The green tech initiative in China

### 3.1.3 Economic factors

The level of economic development of a country may affect a company, both the desired attributes of a product and the media firms use (international business 1999, 492). Economic will impact on marketing strategy because the main purpose of marketing strategy is to improve sales and profitability.

China is the second biggest economy in the world and its GDP has been growing on average 10% annually since 1989. During 20 years of development China has become the world's leading producer and consumer of a wide range of basic materials and tradable commodities. After acceptance to WTO Chinese government has opened doors for foreign competition. However, the rapid economic development has impact on the environment significantly. The economic development of China came to a significant environmental cost. Therefore, it is necessary for wind power industry to develop under the healthy economy system. This high scale of economic also leads to cost advantage to the case companies.

The Chinese government had reduced the VAT for wind power from 17% to 8.5% in 2001 and adjusted the import custom tariff of wind turbine generator sets to 8% and that of its components to 3% in 2004. (ecoworld.2010)

The currency of China is Chinese Yuan. According to the Bank of China, the exchange rate of CNY against U.S. dollar has been reached 6.6216 in 2011. And for EUR, it has been 8.7606. In this study, this exchange rate will be adopted to change Chinese Yuan to EUR or USD. (Trading economics 2011)

### 3.1.4 Competition Overview

As a result of high demand in wind power and government incentives policy, the competition among wind technology companies becomes fiercer and fiercer. In 2004, there were six wind turbine manufacturers in China. By 2009 that number increased to more than 70 companies. During the same period, China's wind power capacity increased from 760 MW to 20,000MW. (Energy Resources 2010)

In 2010, the wind turbine price competition became unhealthy. The gains of private enterprise are balanced by the losses. According to statistics, compared with the same period in 2009, the average price of wind turbine has dropped by about

900EUR/KW. “In the next 2-3 years, 80 of existing wind manufacturers in the Chinese market only 15 or even less can survive. Most of them will meet the problems of being annexed or obsolete in the fierce competition” Dr. Ye Yi-Manager of renewable technology Co., Ltd. (CHINAIDR, 2010).Therefore, the case companies needs to improve their marketing strategy to survive in the fierce competition. The case companies need to use a correct marketing strategy instead of decreasing the price blindness. Right price strategy will be demonstrated after benchmarking Vestas in Chapter5 of this study.

After the financial and economic crisis, an increasing number of international wind power manufacturer giants are entering the Chinese wind power market. The whole industry is transforming from the quantity competition to a new stage, the quality competition. Because of the high-tech, foreign companies are the major competitor for Chinese domestic companies. For example, Vestas is the leading and the largest wind turbine manufacturer in the world. Vestas has 13% of market share. Vestas hold high technology, perfect supply chain and loyal customers. In fact, most domestic wind turbine manufacturers in China still cannot handle too slow or too fast wind when manufactured. They always need to import high-tech products from other developed countries.

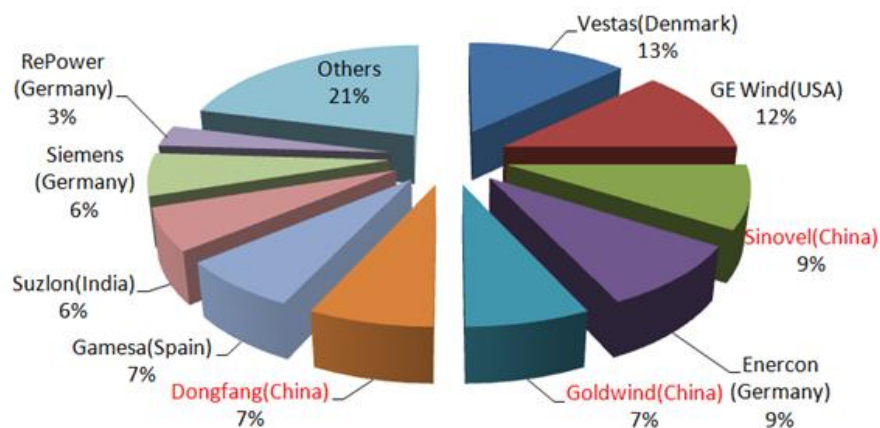


Figure9. Top 10 Wind Turbine Manufacturers in the world (RNE21.2009)

As can be seen from the figures, it illustrates explicitly three Chinese manufacturers, Sinovel, Goldwind and Dongfang have moved into the world's top 10 manufacturers in 2009. The domestic wind technology companies hope to compete

so they must be global. For instance, Sinovel export wind turbines to India and Goldwind export wind turbines to the United States. Anyway, the Danish company Vestas retained its market leader spot in the world.

### 3.1.5 Major competitors in China's wind power industry

Firstly, the major domestic manufacturers will be indicated in this part. They are parts of case companies which means they still need to improve the marketing strategy.

- Sinovel Wind Co., Ltd

As the third largest wind turbine manufacturer in the world, Sinovel Wind accounts for 21% of China's wind turbine market. Sinovel engages in engineering, developing, manufacturing and marketing of the wind turbine generator system (SWE, 2010). The company firstly introduced the technology of MW-class wind turbine generator system into China. Now Sinovel is in the progress of developing its own 5MW wind turbines to serve the global market. Unfortunately, because of the rapid growth, nowadays Sinovel have the quality problems and lose many customers and investors. Sinovel will even lose its market if they do not find a right marketing strategy to develop the company. In the findings part of product strategy will mention the possible way to improve the problems.

- Xinjiang Goldwind Science & Technology Company

Goldwind is a pioneer in China's wind industry. The company runs several projects in China's largest wind farm based in (Southwest of China) Urumqi, Xinjiang, including a 50,000 KW pilot program. In 2008, Goldwind obtained Germany's Vensys Energy which helped it add 2.5 MW turbines to its existing product line. On February 2008, Goldwind obtained a 70% stake in Vensys Energy for 41.24 million EUR. (REUTERS, 2010)

On the other hand, the foreign wind power manufacturers in China are another big group of competitors.

- Vestas Wind Technology (China) Co. Ltd.

Vestas is a market leader and the largest wind turbine manufacturer in the world. Vestas is a Danish manufacturer, seller and installer of wind turbines. Vestas announced that the company had established its world's largest integrated wind power production base at TEDA in China. The plant incorporates the production of nacelle, blade, generator, control system and machining parts. (Vestas inside, 2009)

More detailed information of Vestas will be illustrated in Chapter 4. The product differences, brand identity and switching cost of it will be mentioned in that chapter.

#### Gamesa Corporación Tecnológica

Gamesa is a Spanish wind turbine manufacturer, develops, manages and sells wind farms. It is the market leader in Spain and the second largest foreign wind power company in China with a market share of 8% in 2009. The company has installed more than 18,000 MW in over 20 countries on the four continents. (gamesacorp.2010)

The competition between domestic players and foreign players is becoming fiercer in the Chinese market. The high-tech, good service and high quality of foreign companies could be the main threads toward domestic companies.

Chinese wind turbine manufacturers bargain the price with low cost. They have cost leadership in the industry. The potential competition exists now. Some companies are forsaking quality to sell their products cheaply. The competition has intensified with this phenomenon.

Numerous competitors of equal size will lead to more intense rivalry (Hollensen 1988). This is the reason why the competitive rivalry becomes fiercer in Chinese wind power technology industry.

### 3.2 Suppliers

A firm can reduce the bargaining power of suppliers by seeking new sources of supply, threatening to integrate backwards into supply and designing standardized components so that many suppliers are capable of producing them....The cost of raw materials and components can have a major bearing on a firm's profitability. (Hollensen 1988.110) A wind turbine consists of thousands components and each of the components has its own suppliers. As a matter of fact, there are varied of suppliers in Chinese wind power technology industry.

For example, Vestas has a long and close cooperation with almost 150 suppliers in China. The Chinese government required that all foreign manufacturers have to achieve a minimum level of 70% domestic content. Hence, Vestas work closely with Chinese domestic suppliers. With sharing the knowledge and working together, they establish the local Chinese supply chain network.

China's wind turbine components manufacturing network is maturing and moving toward production of larger models, with a heavy reliance on foreign control systems which include the gearboxes and bearings.

The following table will be adopted to show the suppliers of three Chinese domestic wind technology companies by major components.

Table 2 .Suppliers of Chinese domestic wind technology companies  
(Wind power China 2011)

Company	Generator	Nacelle	Control System
Sinovel	LanDian&YongJi (China)	DaZhong(China)	Windtec (Austria)
Goldwind	Zhuzhou&YongJi(China)	Chongchi(China)	Goldwind(China)
Dongfang	LanDian&Dongfeng(China)	DeYang Electric Company (China)	Mita (Denmark)

Control system is one of the most important parts of wind turbines. The table shows clearly that Chinese wind technology companies still rely on the high-tech of foreign companies.

The switching cost is high in wind power industry. Switching the suppliers causes additional R&D costs and this is the reason why a company usually won't change the suppliers if they have a good cooperation for a long time. At the same time, the suppliers are trend not to switch new company as well.

Hence, finding a reliable supplier as a good partner is important for the wind technology companies. When the researcher indagate which supplier is a good partner for the wind technology companies, the companies give answers from companies strength, product quality, marketing skills and facilitating factors. The researcher found top 10 wind turbine components suppliers during interviewed. These reliable suppliers have a long relationship with wind technology companies.

- Top 10 wind turbine components suppliers:

- Landian Electric Co., Ltd

- Yongji Electric Co., Ltd

- Zhuzhou General Industry (Group) Co., Ltd

- Dongfeng Electric Co., Ltd.

- Deyang Electric Co., Ltd.

- Shaangu Group Co., Ltd.

- Shenyang Blower Works Group Co., Ltd.

- Chongqing General Industry (Group) Co., Ltd

- Wuhan General Group (China), Inc.

- Zhejiang Shangfeng Industry Holdings Co., Ltd

### 3.3 Buyers

In this part, the questions targeting customers of China wind power technology industry is presented and which group will buy the wind turbines from wind technology companies will be analyzed. In addition, the information about decision makers will be demonstrated in this part.



Table3. Supervision of wind farm in China (Source: NDRC, 2010)

Total installed capacity	Decision maker
>50,000 KW	National development and reform commission (NDRC)
< 50,000 KW	municipal bureau of trade and economic development

The Chinese wind technology market is dominated by state-owned energy companies with interests in energy production as well as shareholdings in the provincial power companies in the majority of the regions where the wind turbine is being installed. Although private developers did not traditionally exist, some organizations have begun to plan a strategy which takes into account a possible liberalization of the market.

The customer analysis is divided into two parts. Both industry park and power generation enterprises will be introduced in the following parts.

#### ① Industrial park

In China, decisions for constructing industrial parks are made by the state government. It could be considered as a move of national development strategy. The industrial park is primarily constructed in major cities. The municipal bureau would organize a public bidding event for constructing wind turbine in a designated wind farm.

For example, the ZhongXin industry park in Tianjin requires 20% of renewable energy utilization for district development. In order to reach this goal, Tianjin built a wind farm in 2009 and meets the renewable energy needs of 10% per year (xindianli, 2011). Another famous industry park is the Gansu Jiuquan Industrial Park. It has a clear wind turbine generator project and guides of investment and government policy.

Because of the government support, the bargain power of buyers is low. It cost time and high amount of money to switch to a new manufacturer. The buyers can choose any wind turbines if only they are suitable for the wind farms or their installed capacity can reach the government's goal. The buyers always like to build a long term relationship with wind technology companies. Unless the wind manufacturers have a serious quality problem, the buyer will switch a new partner.

## ②power generation enterprises

Another target purchaser of wind turbines are Chinese power generation groups. They are major wind farm developers in China.

### Top 5 Power Generation Group in China

- China GuoDian (Long Yuan Electric Power Group Corporation)
- China Huaneng New Energy Industrial Co. Ltd
- China Datang Corporation
- China Huadian Corporation
- China Power Investment Corporation

The power generation enterprises built power plants in various places. Through inviting public bidding, they will decide which kind of power plant to develop, such as wind farm. Then the wind technology companies can sell their wind turbines and find a wind farm to start their project.

A recent invitation public bidding was, on January 14<sup>th</sup>, 2011, Longyuan Electric Power Company is open tender for purchasing wind turbines in order to build Long Yuan Dagang wind farm (bjx wind power 2011). Longyuan Electric Power Group Corporation is a subsidiary of China Guodian and specializes in wind power.

### 3.4 Substitutes

The presence of substitute products can reduce industry attractiveness and profitability because they put a constraint on price level (Hollensen 1988 .111). Wind power price is high compared to lower sources like coal. The costs of wind turbines are also very high. Although the wind power industry developed quickly these years. The high force in substitute power is dangerous for the whole industry because the decision maker of Industry Park can always switch to cheaper energy source.

As to the wind technology industry, there is threat of substitutes, such as solar energy and coal. How to change the situation to prevent consumer switch to other cheaper sources is an important challenge that needs to be met by the whole wind power technology industry. If the wind technology industry is successful and have

high profits, it will become very attractive that all the competitors will tend to enter the market via substitute products in order to obtain a share of the potential profits available (Hollensen 1988.111).

In order to improve the high threat of substitute products, the author will discuss how to build buyer's willingness and how to improve customer awareness of wind turbines later in the Chapter 4& 5.

### 3.5 Barriers to Entry

After approval to the WTO the Chinese government has opened doors for foreign companies, competition and investors. In this case, the domestic companies have more chance learning from the foreign companies such as the research and development of wind turbines. China has already starts to built R&D centre in major cities. It includes the high technology such as wind power technology.

Denmark has Vestas. Spain has Gamesa. North America has GE. As so-called home players, they are very strong in their own regions. The barriers to foreign companies are the cultural differences and localization. Otherwise, the barrier to domestic players is the complexity nature of the wind power product itself. Entering wind technology industry needs high technology and different kinds of raw materials. The cost per unit includes the cost of building the turbine and transmission facilities, the cost of risk, the cost of capital, and service lifetime of the wind turbines. It costs time to do the marketing research before entering this industry.

High promotional, R&D expenditures and clearly communicated retaliatory actions to entry are the methods of raising barriers (Hollensen.1988.p112). These three parts, as well as a new strategy for the case company will be illustrated in detail by analyzing Vestas in Chapter 5.

-cost advantages

In the beginning of 2009, the cost for each KW produced by a 1.5MW domestic wind turbine was about 879USD. Now the price is less than 732USD (Energy Resources 2010), which means the price is considerably cheaper than before. It

could be explained by the fact that low labor cost and support from local government assist the domestic manufacturer against its foreign counterpart.

-knowledge

Professional knowledge is the key issue that makes wind industry hard to access for new players. Otherwise, they will meet the quality problems. Less than 20% of Chinese wind technology manufacturers has enough capability to make R&D to improve technology.

-Technological factors

Wind Power is the conversion of wind energy into electricity by wind turbines. Wind energy is mostly generated by wind farms, where many wind turbines are placed together in reach wind areas. The generated electricity is either distributed over the electric power grid or stored before being consumed. The Wind segment includes four solution areas: Turbines, Development, Maintenance and Energy Storage (Honeywell China, 2010).

In terms of China, it is necessary to develop the core of technology in manufacturing, such as generators of wind turbines. The implementation of these technologies is relative high. Chinese wind turbine manufacturers are weak in the following technology parts:

- High end tech is limited. For instance, specialized blade and computer control systems are hard to acquire
- Insufficiency of high efficiency technology and existing transmission constraints.
- Insufficiency of research and planning, which make quality suffer.
- Compared to advanced foreign technology, Chinese companies are still behind in product design and high-tech.

The implementation of high-tech is relatively difficult. In a word, Chinese wind turbine companies development relies on not only the incentive policy of government but also the fast improvement of advanced technology.

In conclusion of this part, the author uses the following figure to sum up what kind of wind power market area China is. The case companies should build brand create ability to work customers. Hence, in this study, the buyer is the most important force.

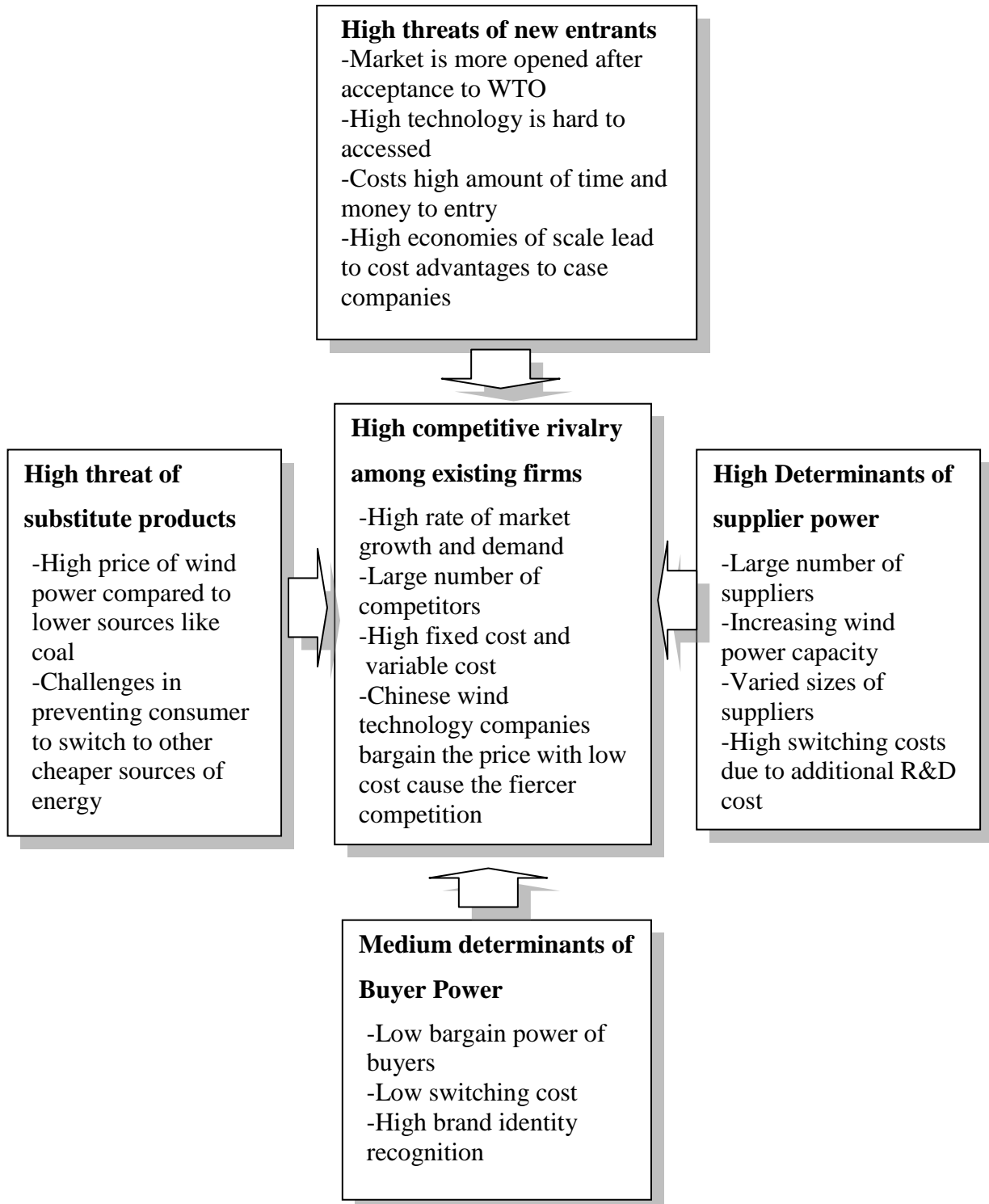


Figure10. Wind power technology industry analysis

### 3.6 Problems of case companies

#### 3.6.1 Product

Chinese wind technology industry has been developing too fast these five years. Some manufacturers start to pay less attention on product quality. They made more products in the same time to sale more wind turbines and earn more money. But what customer need is high quality product. When some accident happened, the company would lose the customer loyalty. Improve the product quality is an important issue for the case companies.

For example, one of the case companies, Sinovel, met a serious problem that three employees from the energy company died when they were installing the wind turbines in a wind farm at the beginning of this year. Because the wind turbine is provide by Sinovel, most people thought this serious problem is caused by the bad quality of Sinovel wind turbines. Therefore, the customers do need quality professional training programs to avoid accidents and enhance the benefits.

Sinovel is the wind technology leader in China. Because of the rapid development, they start to meet many quality problems. This accident shocked the whole industry. Sinovel has the responsibility to protect all the staff far away from accident.

The accident influenced the stock price. Sinovel fell on its first day of trading. The stock slumped over 9% from 90 Yuan (10.58EUR) offer price on Shanghai Stock Exchange. Within a day, Sinovel closed 9.6% lower at 81.37 Yuan (9.57EUR). (China Daily. 2010)

That accident also influences customer's loyalty, when Sinovel have the quality problems of wind turbine, one of the five major wind power developers, Long Yuan Power Generation company reduced large amounts of orders from Sinovel' wind turbine.

Other Chinese domestic wind power companies also meet the quality challenges. For example, the third largest wind turbine manufacturer- Dongfang had an accident in 2009. Most of the wind turbines were collapsed like domino when there is one wind turbine broken and collapsed in Ningxia wind plant. (eastmoney 2011)

After the Sinovel accident, more and more people start to think about the quality of Chinese wind turbines. "With a large installed base in China, turbine accidents and quality issues are becoming more common," said Justin Wu, head of wind research at Bloomberg New Energy Finance (eastmoney 2011).

Another reason causing the accident is because of the customer not having enough knowledge about products. When the staff installed the wind turbines they met the problems of accident. Beside the hardware of wind turbine, the customers need the professionalism employee training and relevant wind turbine operating knowledge.

The case companies also meet the challenges of product certificate and ongoing quality control process. America has the national wind technology center offering the wind turbine certification. It provides performance, noise emission, blade and loads testing for and configuration of wind turbine. In terms of China, the certification of wind turbine is depends on one's will. Many wind turbines inputs market without certification. (Qin haiyan 2009)

### 3.6.2 Price

In 2010, the price competition became unhealthy. In China wind power market, when a competitor cuts prices, other companies drop prices as well. The gains of private enterprise are balanced by the losses. According to statistics, compared with the same period in 2009, the average price of wind turbine has dropped by about 900EUR/KW.

Most of the Chinese wind power manufacturers have set prices low to prevent competition from entering the market. Under the fierce competition, they competing on price not value. It gives the bad influence in China wind power market, the quality of wind turbine becomes lower, some companies even give up independent research and development just seek low price and production

China today has a large demand for energy such as wind energy. The government needs to deter the malfeasance competition to stabilize the market.

### 3.6.3 Promotion

Because of some poor quality wind turbines, the energy company starts to buy foreign wind turbines, such as Vestas and Gamesa. Another challenge is the customers can also switch other renewable power like solar. The case companies need to increase the awareness of customers. The marketer are lack understanding of the customer's internal process which the solution provided by the seller should fit. There are not much communication platform between the case companies and the customers, such as a direct dialogue and deep communication.

### 3.6.4 Place

Due to the high outbound transportation costs of wind turbines, geographical closeness to markets is needed for the wind technology companies. China is a huge country, the case company needs to find a place with abundant wind resources, closeness to the wind power market and without many competitors there. Some areas are already saturated, but some case companies are still jump into that market. This will cause fiercer competition and brings a bad influence to the whole industry.

On the other hand, there are almost 80 wind technology companies. In fact, there is not enough appropriate containers to transport wind turbine components such as blades. The case companies need to find a reliability transport partner and build a friendly distribution environment. Also on-time delivery is important to the customers.



## 4 BENCHMARKING

In this part, the author will benchmark Vestas marketing strategy and start with the mission and vision and then the marketing mix.

Vestas the Danish company is the world leader in wind power systems. The successful marketing strategy brings strong competitiveness. It starts with a clear mission and vision. The Vestas' mission, Failure is not an option, sums up their commitment to continually optimize the working processes, safety procedures and products and to chase up and correct any errors. Meanwhile, wind oil and gas is Vestas' vision, which expresses the ambition of making wind an energy source on a par with fossil fuels. (About Vestas 2010) Vestas lead the industry and moves towards this goal.

Vestas Wind Technology (China) Co., Ltd. is a pioneer in the Chinese wind power technology market. In the following part, the author will use "Vestas" as an abbreviation to benchmark Vestas marketing strategy in China. Vestas have installed the first wind turbines in China. The wind turbine can keep working nowadays. Today, Vestas has 3,000 employees in five areas in China.

The author will go through the different marketing mix choices that Vestas has and compare the weaknesses the case company meets. In the end, the case companies can decide whether they can carry out the possible marketing mix strategy for their future business.

### 4.1 Product

The first part of the marketing mix includes product attributes, brand strategy and service. All the three factors focus on building customer value. The conclusion of product strategy will be introduced at the end of this chapter.

#### 4.1.1 Product attribute

As a macro international wind turbine manufacturer, Vestas has produced both onshore wind turbines and offshore wind turbines. Because there is no offshore wind farm in China now, Vestas manufactures four kinds of onshore wind turbine in Chinese wind power market. At the end of 2008 Vestas ordered wind turbines

totaling 200 MW for the Chinese market. Vestas had installed 2,085 wind turbines in 13 provinces in China (Renewable energy 2009).

Table4. Vestas product attributes (Vestas product brochures 2010)

<i>Vestas Onshore wind turbine in China's marketplace</i>				
Size	V52-850KW	V60-850KW	V80-2.0MW	V90-1.8/2.0MW
Wind resource required	high& medium wind	medium& low wind	high wind	medium& low wind
Strength & features	·install in the rugged terrain Easy to transport and install <b>(love marks in China)</b>	Offer better solutions to Chinese wind energy demand High efficient blade	Increase generation electricity capacity and quality Reduce mechanical wear	·the highest power to competitive in medium and low wind environment
<i>Vestas' production strategy by main parts of wind turbines</i>				
	Main goal	strategy	Main elements	
<b>Blade</b>	remain self-sufficient in blades	100% manufactured by Vestas	<ul style="list-style-type: none"> <li>- Because of the strong growth in Chinese wind power technology market, Vestas continuous expansion of production facilities.</li> <li>- Due to high costs of transportation, geographical closeness to markets rather than to suppliers.</li> </ul>	
<b>Control system</b>	World Class within safety, quality and delivery precision	100% Vestas ownership. IT is everywhere in Vestas wind power system	<ul style="list-style-type: none"> <li>- Customer oriented in China</li> <li>- ongoing quality control process by six sigma tools</li> <li>- focus on long-term relations and partnerships</li> </ul>	
<b>Nacell</b>	to produce and delivery nacelles and hus for all Vestas turbines	Core strategy	<ul style="list-style-type: none"> <li>- To be more localization especially in China</li> </ul>	
<b>Tower</b>	Serving the market needs, seen from high-tech, quality and commercial perspectives	partial in-house productions	<ul style="list-style-type: none"> <li>- Maintain knowledge enabling the transfer of manufacturing technology to third party manufacturers</li> </ul>	

- V52-850kw wind turbine

In 2008, Guangdong Power Generation Company ordered 116 V52-850 KW wind turbines from Vestas wind technology company (Renewable energy 2009).

Because this kind of wind turbine is easy to transport and install, it can decrease the price of logistics. Through years of development, it has become the love marks product and sold totally 705 items in China.

- V60-850kw wind turbine

According to the Vestas localization strategy in China, they are manufacturing a kind of wind turbines “Born by China, Built for China” to promote their sales in China. More than 90% of this wind turbine component is made in China. The V60-850kw wind turbine is customized for the weather and condition in North China. It can take 75% of medium and low wind resource in Chinese wind market share.

- V90-1.8/2.0MW wind turbine

In 2010, Vestas sold 230 V90-1.8/2.0MW wind turbines in China, which created a new sales record in China. On the 10<sup>th</sup> of January 2011, Hebei new energy Co., Ltd. ordered 25 V90-2.0MW wind turbines from Vestas. These wind turbines will be built in Da Qing He wind farm, Hebei province, China. Vestas wind turbine with its high reliability and high power output has got the loyalty of customers. This is the third cooperation between Vestas and Hebei new energy Co., Ltd. This contract includes two years after-sale service and Vestas on-line SCADA monitoring system. The SCADA will give a detail performance report to the customer. (Vestas news 2011)

If a company do not manage themselves to prepare for change or developing a product, they lose. Focusing on new product development is an important strategy for the wind technology companies. “We need to change faster than the market, faster than our competitors, and faster than the minds of our customers” says Ditlev Engel, the CEO of Vestas (MustWin 2008, 3).

As a company grows, it faces new challenges. Vestas has grown rapidly. Change carries the promise and opportunity of a better tomorrow and helps Vestas fulfill the vision to keep the position as an unrivalled market leader. For example, the V60-850KW wind turbine is a new products development case that Vestas built in

China as a long-term business strategy. On the other hand, in the offshore wind power market, Vestas see a great deal of interest coming from China. Vestas starts to manufacture V112-3.0MW offshore wind turbine and try to find a blue ocean in Chinese wind technology market.

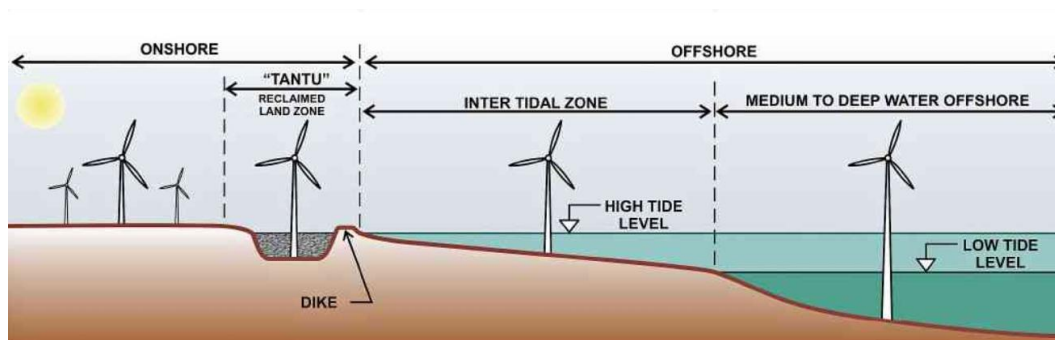


Figure 11. Onshore and offshore wind power (CNWEE 2011)

Offshore wind farms consist of large-scale wind turbines with high technology and high quality. Offshore wind power is more effective than onshore wind power. It has the strengths. Firstly, as the figure shows offshore areas provide more space, so the offshore wind turbine wouldn't take much land and far away from people. It offers more green value than the on-shore wind turbines. Secondly, there is more wind at sea so the offshore wind turbine can provide stronger power. Because of these reasons, more and more countries start focusing on offshore wind power development.

Vestas is ready to develop Chinese rich offshore wind resources in offshore wind energy projects. Vestas had installed many offshore projects from Europe. They have strong capabilities in planning of micro-siting offshore wind farms, designing offshore wind turbines, executing and maintaining offshore wind turbines. They are ready to share with their customers and apply to Chinese conditions. (Vestas China 2010)

The offshore wind power also meets the challenges. For example, it is affected by harsh weather conditions so it requires high and professional technology. There is no existing infrastructure in China which means the entire project has to establish an individual solution for the grid connection. It cost time and require people for the foundations and electrical infrastructure. On the other hand, these challenges open a

blue ocean to the high-tech wind technology companies. If a company has the ability to build a high quality offshore wind turbines, it will leading the market. By virtue of Vestas many offshore projects from Europe, they have the ability to solve the technical problems. If Vestas get bidding and open the offshore wind technology market in China, they will get the chance to take more market share in the Chinese wind technology industry.

In fact, China has already started the demonstration project for offshore wind turbines. It is the official way to test the possibility to build offshore wind farms in China. If this project is successful, the major wind turbine players will jump into this new market. The company which can be a pioneer to provide offshore wind turbines will lead this market. They will get higher market share than onshore wind turbines.

#### 4.1.2 Brand strategy

In wind power market, when you hear someone say “Vestas”, how do you feel or what do you remember? What about “Sinovel”? “Goldwind”? or “Dongfang”?

Brands also say something about a product. Quality-buyers who always buy the same brand know that they will get the same features, benefits and quality each time they buy. As one well-respected marketer once said, “Products are created in the factory, but brands are created in the mind.” Brand is key element in the company’s relationships with customers. (Kotler et al 2001, 255-260).

Vestas provides high quality wind turbines and good after-sale service to reach customer demand. In China, Vestas building a strong brands strategy. The author made the following figure shows Vestas brand strategy development in China. It includes brand positioning, brand name choose and brand development.

Brand positioning	Brand name selection	Brand development
-What attributes will do for the customer? e.g. V60-850kw wind turbine “Born in China, Build for China” -high brand loyalty -good perceived quality	Vestas “Wind. It means the world to us” -translate easily to Chinese -shows the passion for wind -specialized in wind -help with promotion of the product	<div data-bbox="914 309 1433 421"> <p>old brand</p> </div> <div data-bbox="914 477 1441 600"> <p>New brand(2010) (global brand)</p> </div> <div data-bbox="914 645 1377 835"> <p>Brand in China (local brand)</p> </div>

Figure12. Vestas brand strategy development

In 2010, Vestas got a new brand from “No.1 in Modern Energy” to “Wind. It means the world to us” Vestas developed the Chinese version of the brand tagline to accurately reflect the underlying message and to express the attributes of “passion for wind” and “specialized in wind” (LAB BRAND 2010).

In China, Vestas is a wind technology company. The old name “No.1 in Modern Energy” is waning because they do not sell wind energy in China. A new brand name is needed. This new brand translate comes from the well-know ancient Chinese phrase. It delivers a strong sense of Chinese culture and very appealing to the Chinese target customers. It also delivers a brand promise of the most experienced consistently to the buyers.

Meanwhile, it highlights Vestas specialization and expertise in wind technology, as well as their strong commitment to wind. Furthermore, the tagline is concise and easy for Chinese customer to remember.

This case shows how Vestas is building strong brands in China. In China, Goldwind is easy to remember and shows the product’s benefit and qualities. Sinovel is a leader in Chinese wind technology industry but its brand is difficult to remember.

Using the brand strategy can build more strong brands and attracting more customers.

#### 4.1.3 Service

##### (1) Overview of product quality insurance

A good quality insurance of wind turbine is achieved by the right methods, which includes good service. Before the end of 2010, Vestas has already installed 2,085 wind turbines in China. During the life cycles of wind turbines, all the wind turbines had never met the quality problems. The 90s in 19 century, Vestas built wind turbines in Shandong and Xinjiang, China. Nowadays, all of those wind turbines can operate well (Lu Yu 2010).

I can still remember the time when I did my practical training at Vestas last summer. Every time when the employees had lunch, we could see a BIG BOARD which shows how many days Vestas had no accidents. Each employee is trying their best to keep the number growing and hopes for no accident. The company's leader leads the company in a good responsible business way.

Vestas also met a quality problem at the beginning of the step into wind power industry. In 1981, Vestas met a huge accident, 16 of the 55KW wind turbines supplied by Vestas were broken. Vestas needed to offer new blades to their customer. At that time, Vestas hadn't started making money on wind turbines yet. It cost a lot of money to make new blades again. The leader of Vestas said "In for a penny, in for a pound." "We just have to learn from our mistakes. Vestas can't leave its customers with no-good blades" Finally, the company made the decision; the customer was given other blades. (Vestas video. 2010)

Because of this case, Vestas got the customer loyalty at the beginning of the stepping into wind power industry. After years of development, Vestas has become the most trustworthy provider of wind power technology in the world. Nowadays, Vestas still focus on reliability. Vestas has the strategy to increase performance capability, such as established performance forum or trade fairs with customers. Vestas also got the customer loyalty in China and have more cooperative chance with the Chinese power generation groups and cities industry park. If a wind technology company meets the quality problem, it is not serious. Just find the

problems and correct it. Never leave the no-good blades to the customer. About testing the wind turbines will be talked later in this chapter.

## (2) Customer service

Vestas held professional training to improve internal and external service value. The CEO of Southwest Airline Herb Kelleher always put employees first not customer. He says, "If the employees are satisfied, they will take good care of customers. When the customers are happy, they come back, and make shareholders happy." (Kotler et al 2001.270).

Vestas has employee training every year. The hardworking employees will get the chance for training abroad. One thing I have to mention is Chinese people like to go abroad because they got the chance for training, also for travelling. In China's factory, the Chinese employees could go to Denmark to get more professionalism wind power technology study. When the employees come back to China, they will become more professional. For example, the employee works at the import and export department always need to recognize different parts of wind turbine components and different dusty paragraph of the custom. Many of the components were imported from Denmark. When the employee go to Denmark and visits the manufactory there, they will vividly comprehend the wind turbine components. It helps the import and export department daily work. It can create a harmonious working environment and strong team spirit.

Vestas do not only train internal employees but also external professional training for people who work in the wind farm. The energy companies as one of the large-scale wind turbine customer don't have enough knowledge about wind turbine products. In China, Vestas sale wind turbines to the energy companies. Because of controlling the wind turbines is a professional work, training the staff from the energy company is needed. These kinds of employee training will safeguards the staff avoid accident when they install a wind turbine. The training also includes how to use the Business SCADA solution.

Vestas has great service value. For example, Vestas sells a wind power project with a business case which is something that few of the competitors can match. The business case includes the SCADA solution.



SCADA is a kind of computer monitoring system which helps optimize the performance of the wind power plant. This means it is a computer based tool which enables you to “see” what happens in the turbine just by logging on to the system wherever you are in the world. It allows you to control a complete park of wind turbines and get the statistical data. (Vestas online business 2010)

When the wind farm is up and running, this system can ensure the operator performs reaching its best. It is built around a central server and transfer data from wind power plant server to the communication network. It works with all the turbines in all plant configurations. Vestas collected the data from each turbine and use them to create customizable report for the customers.



Figure13. Vestas SCADA system (Vestas SCADA 2010)

“VestasOnline®” provides online production view to the customers who want to earn the best from the advanced reporting. The SCADA will monitoring how much production is losing due to weather conditions. Furthermore, the wind penetration grows and control the whole wind farm is also parts of SCADA function.

The information from wind turbines is important to the customer. The SCADA provides an easy way to control wind power plant as other conventional power plants (Vestas SCADA 2010). This system helps Vestas to reach customer demand.

### (3) Cooperate with BMGI to reach six sigma level

In order to reach six sigma level, Vestas cooperates with BMGI (Breakthrough Management Group International). BMGI helped Vestas make a successful six sigma system and make a powerful methodology for ensuring the performance, production process, and reliability of the new wind turbine. It improves the efficiency of the marketing planning process.

#### (4) Services for wind turbine certification

International standards certified the company was mapping a correct process for wind turbine manufacture. The wind turbine certificate will be considered when the customer wants to bid a wind technology company to build their wind turbines in a wind farm.

All activities of Vestas are certified according to the ISO14001 and OHSAS 18001 standards for environmental, occupational health and safety management

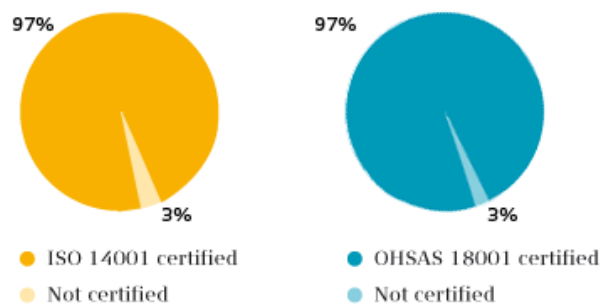


Figure14. The scope of certificates within the Vestas Groups (Vestas management system, certificates 2010)

The figure shows 97% of Vestas Group was certified by the end of 2009 according to the ISO 14001 standard and OHSAS 18001 standards.

Vestas also has certified International standard IEC 61400-1 for wind turbine tests. It provides a suitable level of protection against damage from jeopardy during the planned lifetime of wind turbine.

#### 4.2 Price

The case companies offer low prices, but sometimes does not promise high quality. In contrast, Vestas offers high-tech wind turbine, good quality and nice after-sale service but does not promise low price. The price level of Vestas wind turbines is 15% to 20% higher than the case companies.

There are different Pricing strategies between Vestas and the case companies. Chinese domestic wind technology companies use **market-penetration pricing**. They set low price for wind turbine in order to attract a large number of buyers

quickly and win a large market share. Chinese wind technology industry developed quickly these days. They used penetration pricing to enter the wind power market through lower-cost direct channels. Sinovel and Goldwind have moved into the world's top 10 manufacturers in 2009.

Quality and image support higher price. Vestas is setting a **market-skimming pricing** to get more profitable sales. Vestas' high-tech sets cost is very high especially for the technology R&D. Vestas not only sells wind turbines but also sells a project with a business case and excellence after-sale service. Although the price is much higher than the Chinese manufacturers, the customer who really want the high-tech and different services could afford to pay a high price for it.

When benchmarking the pricing strategy of Vestas in this part, the author will talk about the **value selling**. Nowadays, the pricing competition in Chinese wind technology market is even fierce. Dropping price when others cuts price is actually a wrong response. Instead, the company may want to emphasize the "value" side of the price-value equation (Kotler& Armstrong 2001. 350).

Vestas as a wind turbine manufacturer is more concerned with keeping customers than with retaining its global number-one spot, and does not plan to compete on price. "We will not go into price competition and we are not going to compete with the cheapest," Finn Strom Madsen, president of Vestas Technology R&D (Braden Reddall.2010).

Wind technology companies must stand out in today's competitive market. Vestas' sales teams are going to put more emphasis on Vestas' abilities to ensure business case certainty for the customers by introducing "value selling". In the fierce competition, competing on price can be attractive, but Vestas has decided to take another way with "value selling".

"New, cheaper players are entering the market, but it's our commitment at Vestas to avoid getting involved in a price war. Instead, Vestas wants to profit from using our abilities to ensure business case certainty for our customers. That's what value selling is all about," says Business Manager Stephen Ford of Vestas Northern Europe in Warrington, England.(Vestas Win[d] 2008)

Managing the spread between costs and prices is the key issue of how much the company makes for the customer value it delivers (Kotler& Armstrong 2001.319).

### Value-based pricing by Vestas

Good pricing starts with the customer not the product. What Vestas' offers is different from Chinese competitors.

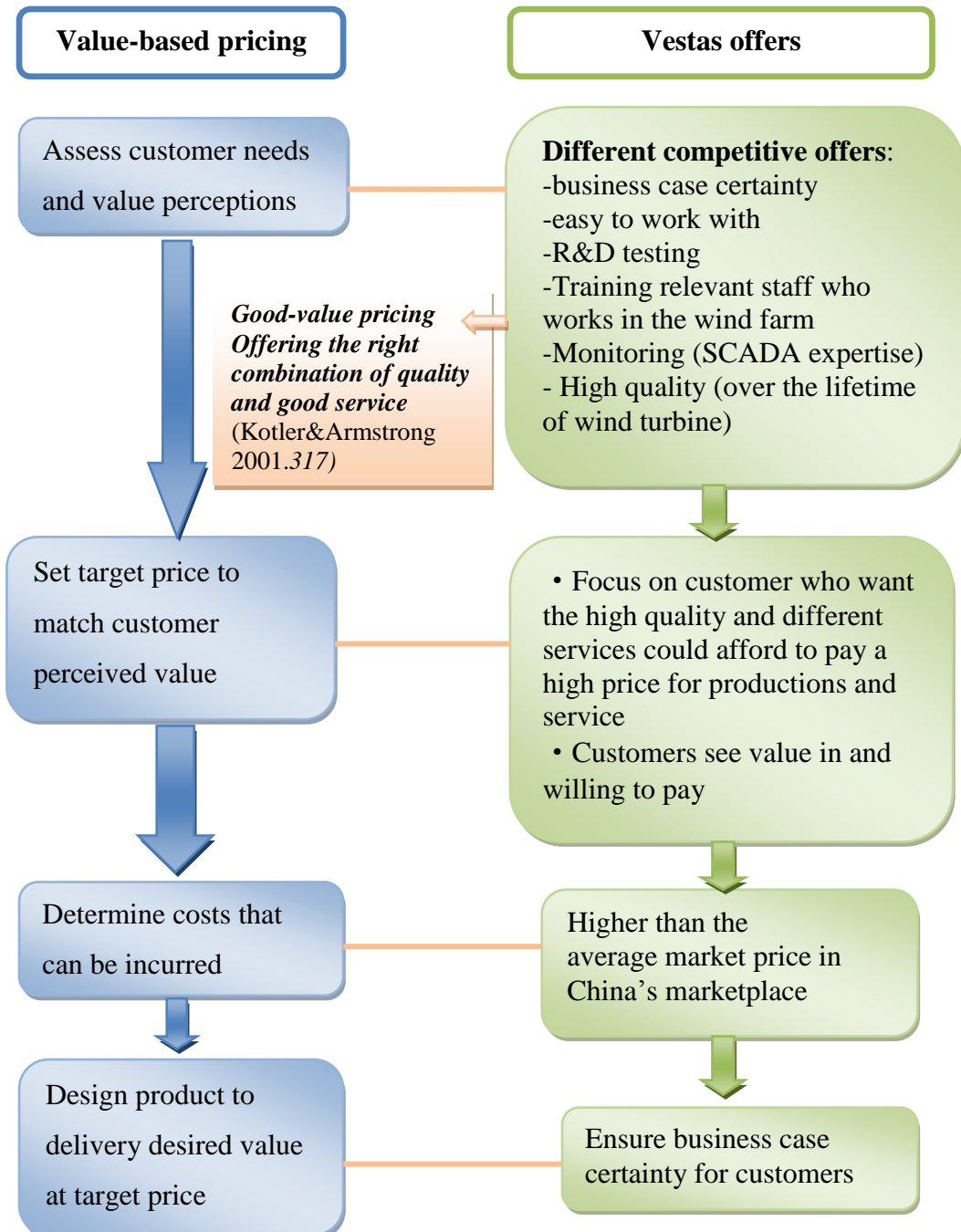


Figure16. Value based pricing

Source: (blue part) Kotler& Armstrong 2001. 316

When Vestas developed the MW wind turbine to compete with Chinese domestic manufacturers in the lower-income segment, this required charging a low price. “For customer, a megawatt of wind power is not just a megawatt of wind power. It is the reliability of the energy generated, which keeps the lights on in Chinese homes. So it is crucial to customers that Vestas has the capacity to deliver cost-efficient wind power projects involving the lowest total costs per kilowatt hour throughout the lifetime of the project.” says Lars Andersen. (Andersen2008.30)

In the Chinese wind power market, the domestic players can bargain the price and keep the low price. Under this fierce competition, Vestas try to reduce some money of wind turbines. Price cannot reduce by quality but can be other ways.

Firstly, Vestas use localization strategies to reduce logistics costs. It is very expensive to transport turbine components or wind turbines from one continent to another. In order to reduce both logistics costs, Vestas establishes factories in different regions to cut transport money and decrease dependency on currencies in China. It is also one of Vestas’ localization strategies; the cheaper labor cost will also helps Vestas to reduce the cost for producing wind turbine. Furthermore, Vestas would not be competitive on account of the duties on imported goods, or due to national requirements for the local production of a special percentage of the turbine components (Win[d] 2007.21). This also helps Vestas build effective supply chain management. More detail of distribution in different regions will be talked in the place strategy part-Chapter 4.4

All in all, Vestas use “value selling” and establish manufactories in different regions in China. They will never reduce product quality or downgrade service to reach the low cost of wind turbine.

#### 4.3 Promotion and marketing communication

“Today it’s all about trust, community, and creating a dialogue with your customer that shares real knowledge.” says Landor’s chief marketing officer (Kotler& Armstrong 2001. 261). Wind technology companies must also use promotion strategies to persuasively communicate that value. Because some of the Chinese domestic wind technology companies are losing wind turbine orders from the

customers. They need to find a better promotion strategy making the product attractive and creating a demand for the customers.

In this part, the author will benchmark what kind of promotion strategy makes Vestas succeed. After that, in chapter 5 the author will give the findings of which promotion methods do the customers value in China wind technology industry.

#### 4.3.1 Overall marketing communication strategy

As a firm develops its advertising strategy, it must consider 3 factors. Firstly, the message it wants to convey. Secondly, the media available for conveying the message. Finally, the extent to which the firm wants to globalize its advertising effort. (Griffin&Pustay1999. 496)

Vestas has already launched wind turbines in the Chinese market for a long time. Wind turbines as a high-tech product needs marketers to explain the knowledge of how to use it. Vestas use marketing channels, such as trade promotion activities to create consumer demand for a product. “Push” the wind turbine or service through to the sales channel. Hence, Vestas uses push promotion strategies.

Vestas focus on creating external brand as well as establishing a strong common internal platform for customer information and communication platform. This internal platform is not only used for key account management but also for ensure customer know when they can expect a response. Customers can also give feedback to Vestas via that communication platform. The author uses the following figure to show Vestas marketing activities in different parts. The original figure is from Philip Kotler explains elements in the communication process. The author appends Vestas marketing activities in different parts.

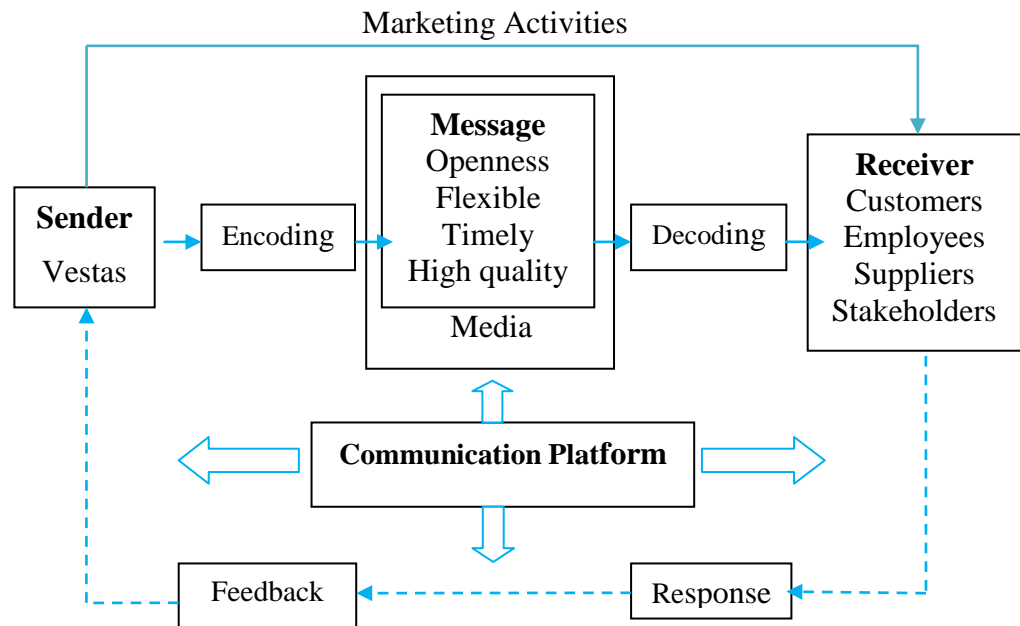


Figure16. Communication processes (Kotler& Armstrong 2001.432)

### **Sender (Vestas)**

In the marketing activities, a company sending message to the receiver – here, Vestas.

### **Message**

The message of an advertisement is impressions the advertiser wants to convey to potential customers (Griffin& Pustay1999, 496).

Vestas' communication strategy ensures message from Vestas is:

- reliability which relevant to the high quality
- timely, which means the information from Vestas is relevant in terms of time
- the information is adequate and relevant
- equal treatment of all stakeholders

All communication from Vestas must underpin the overall picture of the business, its goals and corporate culture, and all communication is based on what serves Vestas' best interests in the long term. (Vestas" communication strategy 2010)

### **Media**

The communication channels through which the message moves from Vestas to the customer. In this case, trade fairs and events that is the main media Vestas selected. Media is an important cooperation partner in Vestas' access to the public. Vestas participate to the trade fairs in different countries and participate in the event to promote the product of the company, establish strong external brand and

communicate with the suppliers and consumers. Vestas is becoming more open and accessible with media promotion.

### **Receiver (customer)**

The receiver receives the message sent by Vestas, which include customers, employees, suppliers, stakeholders. All of them work in a friendly communication environment and brings high effective work.

### **Response**

It include any of thousands possible responses, such as the feedback after sale. No matter the response is good or bad, it shows the partner what to communicate with a company. Dialogue for further development has been well received by Vestas' customers, who appreciate the chance to voice their views on the service they obtain.

### **Feedback**

The part of the customer's who respond to a company. Customers write or call Vestas criticizing products.

(Kotler& Armstrong 2001, 432)

## 4.3.2 Advertising

Advertising is a way to increase consumer awareness. Vestas create great advertising, such as its long-running "Wind. It means the world to us". They promise to be the best in the wind power industry. Vestas use a variety of advertising forms as a promotional tool to communicate with consumers.

### (1) Print: newspaper-Unconventional Wisdom

Vestas was the only advertiser in the newspaper called "Unconventional Wisdom". Every morning 11,000 copies of this newsletter were distributed at the convention halls and at the delegate hotels. This provided an opportunity to reach the opinion in a political environment with an eye toward the future. (Newsweek, 2008)

One of the target customers of big-scale wind turbines in China are municipalities. The local government of a city will decide to bid which wind technology companies to build wind turbines in the city's wind farm. Because this kind of newspaper will be distributed to the convention halls, the advertising way will influence the



official's mind and increase the awareness of the customers. The officials will know which company has much higher developed prospects.

(2) Print: Annual report

Vestas publish an annual report each year. It includes presentations and financial reports. The report is written in English, Chinese, Danish, Italian, Spanish and German. It is a tool to improve public relations. Vestas annual report provides information to the investors as they want to know the company from varied levels and make decisions between various wind technology companies.

(3) Print:magazine-“The Grid”

“VestasInside” (previous magazine) → “The Grid” (new magazine)

“VestasInside” provides insight into daily life events and insights into the profiles you can meet in Vestas. “The Grid”, replaces VestasInside and published by different versions, like English, Danish, German, Spanish, Italian and Chinese. It is an easy way for customers to know the product news and strategy of Vestas.

(Vestas media, 2010)

In China, this kind of publication will be sent to relevant administration departments such as Customs Office and China Inspection & Quarantine Office. The main reason is that these two offices are designated to control the trade system. A close communication with them can make a friendly working environment in China. So the Chinese print magazine is not only for the customer but also for the administration department. Vestas as a foreign wind technology in China use this way to help the decision maker know more about Vestas product and strategy in China.

(4) Broadcast (Interviews):

The president and CEO of Vestas, Ditlev Engel is interviewed by several global media, such as CNBC Europe, BBC World, CNN, Fox Business Network. People can find them on internet easily. Some foreign media think Ditlev Engel is not only a successful business man but also a politician. Engel always can establish contacts with the wind association, the legislative branch and state governments. Direct communicate with decision makers from a government is the best effective way to

promote wind power technology in different countries. It is also a powerful way to show the leading state of Vestas to the government around the world and improve contact with political decision-makers. Furthermore, improve contact with political decision-makers is an important part of Vestas' vision.

#### (5) Other forms: LEGO

LEGO is one of the world's largest toy manufacturers. LEGO manufactured one toy of a Vestas wind turbine. This is a win-win trade relationship between Vestas and LEGO.

“A global standard will help create transparency of our and other corporations' activities within the area of renewable energy. We are supporting this initiative because we believe that it will contribute to increasing the global demand of renewable energy in corporations”, says Jørgen Vig Knudstorp, CEO of the LEGO Group. (United Nations Global Compact 2011)

There is a video on internet. A boy was excited to bring the LEGO-Vestas turbine and tell his father “I built a windmill!” Children can not only have fun with the LEGO games but also learn about what is a wind turbine. Children always have curiosity, they will ask how does it works. Although parents can just explain the simple knowledge of how wind turbines works and the influence of environment. When the children saw a real wind turbine someday, they will feel exciting. This delight is from the toy to the real product. Maybe in the future he or she will become the customer of Vestas or a wind power engineer. Once customers believe that wind power could be a part of daily life, the wind power market will increase rapidly.

#### 4.3.3 Sales promotion

Advertising is often working closely with sales promotion. Sales promotions are designed to increase product availability in distribution channels (Albaum, Strandskov&Uderr 2002, 524)

“Our customers are very interested in Vestas' complimentary skills, including Wind & Site, R&D testing, and our SCADA expertise. These competences make excellent selling points, and they are something we can offer our customers today.” says Stephen. The challenge is to link these abilities directly to the customer's

business. Clear communication is crucial. “We must make it easier for the salespeople to express how Vestas can create extra value for our customers. One example is by showing them that Vestas – over the lifetime of a wind turbine – has the best yield performance,” says Kim Baden-Kristensen, Vice President for Marketing & Customer Insight in Vestas Northern Europe. (Vestas Win[d] 2009)

Moreover, trade fairs and events are another medium that is extremely important. Vestas has attended trade fairs and events in China for many times. During this year, Vestas are going to attend two trade fairs in China.

- At 15-17 Jun 2011, Vestas will take participate in the “Offshore Wind China 2011” in Shanghai, China.
- At 19-21 Oct, Vesttas will take participate in the “China Wind Power 2011” in Beijing, China.

The events are publicity around the whole country. This is an opportunity for the customers to experience the wind power product and comprehend the policies of Vestas. Moreover, the event builds good relations with Vestas’ publics by publicity and build up a good corporate image.

When participating in this kind of trade fair, advance preparation is crucial, including contact initiation and translation of materials into Chinese. Advanced planning for trade fair participation and what to do during the fair are important duties of all the wind technology companies. (Albaum, Strandskov&Uderr 2002, 529)

#### 4.3.4 Public relation

PR is a major mass-promotion tool. Building nice relations with the company’s various publics by obtaining favorable publicity, building up good corporate image, and handling events. (Kotler et al 2001, 472)

Sometimes the public relations people suggest events or activities that can create news. Vestas got a positive experience from public relations. Vestas took part in the Shanghai World Expo 2010 as a national sponsor of the Danish Pavilion. As the national sponsor of Danish Pavilion, Vestas uses the major fair as a platform to display the importance of wind energy to Chinese sustainable development. This

event is a close links between the company and Expo theme of “Better City, Better Life”. The event includes wind site, grid and wind power specific topics.

The president of Vestas China, Jens Tommerup says, “In a changing market like this, we feel that it is of absolute importance to really understand and get closer to our stakeholders to build long-term win-win partnerships here in China”. (Vestas media, 2010) This is a good example of public relations of communication with customers and other important stakeholders attest to Vestas wind turbines are working optimally.

On the other hand, the company’s Web site is also one of the important public relations vehicles. Customers often visit Web site for information. Vestas company Web site ([www.vestas.com](http://www.vestas.com)), which figures wind power plants, jobs, investor, media, and the development of Vestas. The Chinese website has 3 special parts. First is an energy calculator which shows how much wind power that Vestas wind turbines offered in China. It shows about Vestas’ contribution in China. The second part is Vestas development in China. It is about the news of Chinese order form and the status of Vestas in China. Vestas is the pioneer to enter Chinese wind power market. Vestas can help China achieve the renewable energy targets, reduce the cost of fossil fuels, and build a friendly wind power technology market in China. When the official read this message, they would like to work with this kind of foreign companies which can help China new energy development. The third part is what kinds of wind turbines Vestas have. Especially some wind turbines are particularly suitable for Chinese weather and conditions. That gives a clear status of Vestas which has more over 30 years of research and development, manufacturing, high performance of wind turbines in wind power industry. The design of website is really clear for the customers find a way to contact with Vestas if they are interested in some wind turbines.

#### 4.3.5 Vestas Group’s internal communication

The main purpose of Vestas internal communication is to help the company turn strategy into action by directing employees through strategic communication. The employees must know what actions are required from them so as to meet the company’s strategy. (Vestas case study collection.2008.47)

The communication is not only between the company and the customer but also the individual department. A company may go through strengthening communication to improve dialogue between the Group's leaders. Mr. Tatsuhiko Yoshimura, professor and quality expert of Toyota, visited Vestas and shared his knowledge with companies looking to optimize their quality and increase competitive power in 2008. He asked a question "How often the designer of the pitch system has lunch with the head of hub production?" After Vestas checked, they found that they had never had lunch together. That was the time Vestas started thinking the strategy pulls everyone together. The value can be created by discussion in different groups. Long-term production planning might have to do with everyday communication. Half a year later, Yoshimura visited Vestas again, he found out more about integrated product development. (Win[d] 2008. 42) Strong team spirit brings succeed to a company, not only communicate in the same department but also with other groups. Although they have different knowledge background and works in different department, a communication between them may creating new ideas and contribute to the company.

#### 4.3.6 Group's external communication

Vestas puts strong emphasis on openness, which includes communication with wind organizations in China. Improving contact with political decision-makers is an important part of Vestas' vision. For example, in China, Vestas work closely with CWEA. This is one way to get the platform for exchange of knowledge with other manufacturers. Moreover, through this bridge Vestas get the chance to exchange messages with decision makers, such as the latest public bidding.

Vestas is a high technology driving company. It requires strong engineers to deliver advanced solutions of a high quality. Vestas has a "Graduate Programme" to cooperate with students. The student may join the Vestas group and communicate as a group for developing wind technology or business case.

Meanwhile, Vestas opens an honest dialogue to the customers and suppliers. The president and CEO of Vestas, Engle believes that dialogue is crucial to Vestas' ability to live up to the requirements made by the market now and in the future. He says, "By having a dialogue with our customers where we listen, reflect and act on

what they are telling us, we will improve our customers' satisfaction. This, in turn, will improve our earnings for the benefit of Vestas as well as our stakeholders" (Vestas Global.2006.1).

Since 2007, Vestas has made customer loyalty surveys for global customers once a year. The feedback from customers is the best message to improve company's strategy and further meet customer needs. No matter the feedback is good or bad, it shows the customer willing to work with Dialogue. Opening up a dialogue between the service provider and the end-user can only be beneficial. Vestas find the causes of their problems and dealing with them. Customer value chain recognized by Vestas as the loyalty drivers that encourage customers to return again and again. A closer and ongoing dialogue helps Vestas becoming a more flexible business partner.

The following case shows a closer dialogue brings high efficiency at work. Vestas completed the installation of the 100 items of wind turbine at the Thanet Offshore Wind Farm within 100 days. The leader of that project tells the reason why Vestas built this effective project is that the supplier and customer work as a team to provide customer satisfaction. When they build a strong team spirit, the process will go on smoothly. (Offshore news. 2010)

#### 4.4 Place

Vestas ensures a clear distribution of responsibility to reduce the response time and lower the cost level. As a long-term strategy, Vestas expects a more even distribution between the regions. For example, Vestas established its world's largest integrated wind power production base in Tianjin and a new sourcing region in Fuzhou. It represent that Vestas opened regional sales strategy in China. Vestas will also training some specialist dealer working for the new sourcing office in Fuzhou. They will take charge the after-sale services at the same time in the new sourcing office in China.

On 17<sup>th</sup> December 2010 Vestas opened a new agency at Fuzhou, China. It is the first regional sourcing office which Vestas set up in China. Before that, Vestas opened three agencies in North China, Tianjin, Beijing and Inner Mongolia. China is a great country. Setting up a regional sourcing office in Fuzhou could enhance

communication with the south Chinese customers. It indicates that Vestas place strategy starts cover the North and South China. Vestas is committed to establishing a close partnership with customers. After lay outing the research and development in China, Vestas next step is to increase the intensity of market sales and service. (Xinmin 2010)

The author use the following figure shows Vestas' production set up in China.

The blue lines are the most two famous rivers in China. The northernmost is the Yellow River and the southernmost is the Changjiang River. The cities below the Changjiang river belongs to the south of China. It shows clearly that Vestas opened the first sales office in the capital of China. After years of development, Vestas opened office in south of China in 2010.

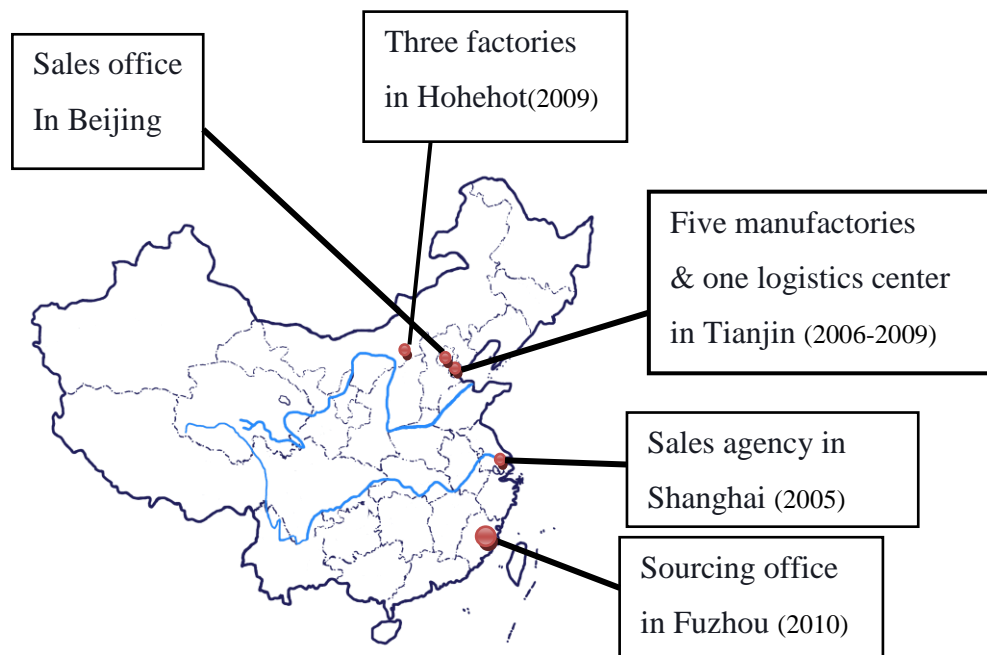


Figure17. Vestas' Asia production set up- China

In order to meet the growing demand for high-tech wind turbines in China, Vestas announced that the company has established the world's largest integrated wind power production base at TEDA in Tianjin. It includes wind power turbine R&D, manufacturing, sales and maintenance. After five capital increases, Vestas Tianjin becomes Vestas' most important manufacturing centre. According to Vestas localization strategy, Vestas do not only builds wind turbine factory in Tianjin but

also brings the leading technology there to improve the production capacity in China.

Vestas as a foreign manufacturer in China not only focuses on the Chinese customer but also exporting wind turbines to Europe. Vestas chooses Tianjin as a manufactory has the **place utility**, which include one of the most important sea ports in Tianjin, key hub of land and sea communications, and serving as the most convenient sea outlet for northwest China. The total foreign trade export value at Tianjin is USD82 million per day. The freight Handled at the harbor is 1044.100 tons per day (Xiao 2010). Vestas also exporting wind turbines to Europe, the sea port offers a utility place for Vestas transport wind turbines.

Vestas as a Denmark company, the major production units established outside of Denmark has the **possession utility** which include,

- Vestas can get high profit in Chinese market. Increase understanding of Chinese markets in which Vestas are operation is import for the company to be successful.
- Open the local manufactory and sourcing office may decrease dependency on currencies and shield against exchange rate fluctuations (Søren Husted 2006)
- Cut transport cost: Tianjin as a major sea port in China offers the friendly environment for transportation. Vestas get the much lower labor cost in China

Securing key **suppliers** is the most important precondition for capitalizing on high growth potential of wind energy (Vestas case study collection 2006). Vestas has set strategic objectives for sourcing:

- Vestas will source in low cost countries to secure more competitive prices

Vestas present in the new fast-growing markets. For example, Vestas opened wind turbine factory in China and India. The labor cost and logistics cost in China and India is much cheaper than European countries.

- Vestas will never depend on only one supplier

This strategy will gives a fair margin on product to suppliers. On the other hand, Vestas mission “Failure is not an option” applies to strategic suppliers as well as Vestas.

- Vestas will prefer suppliers that are present in all the key regions, as this increases flexibility for Vestas. (Vestas case study collection.2006)



In order to deliver a wind turbine on time, Vestas selected a reliable transport partner. In the transportation part, there are 2 main modes of transport wind turbines: road and water. Vestas transport partner includes DSV, DB schenker, COSCO etc.

In China, Vestas has a long-term relationship with COSCO Container Lines Co., Ltd. COSCO is a company focusing on the shipping and logistics businesses while providing global customers with quality ship building and logistics services (cosco group 2010). The container of COSCO can hold the huge wind turbine blades. Due to the ready-made wind turbine blades are huge and long. Find a good transportation partner is important. Under the fierce competition, all the wind turbine manufacturers need to transport the wind turbine components. There are not enough containers to translate huge wind turbine components. It will even influence the supply chain of the wind technology companies. A long-term relationship with reliable partners helps Vestas get the container on time. Then the wind turbines will delivery on-time to the customers.

Vestas is structured into business units of 3 types: Production Business Units (PBU), Sales Business Units (SBU) and Supporting Business Units. The responsibility of each business unit within the group is shown in Figure 18.

Figure 18 represent the flow of information and materials within the Vestas supply chain, together with the frequency of each process. The blue arrows shows information flows within the supply chain. The process of planning and production for every new wind turbine starts with sales forecasting or placing sales order management. This information makes the demand plan into the production plans, and generates purchase orders. Then local buyers ensure execution of the component purchase orders in coordination with the suppliers. (Vestas case study collection 2010)

Vestas has a reliable key account, such as Guangdong power generation company, Hebei New energy Co., Ltd. It uses the direct sales to these main target groups. This is relying on their key account management. Meanwhile, each of following part have the different responsible in the Vestas' value chain.

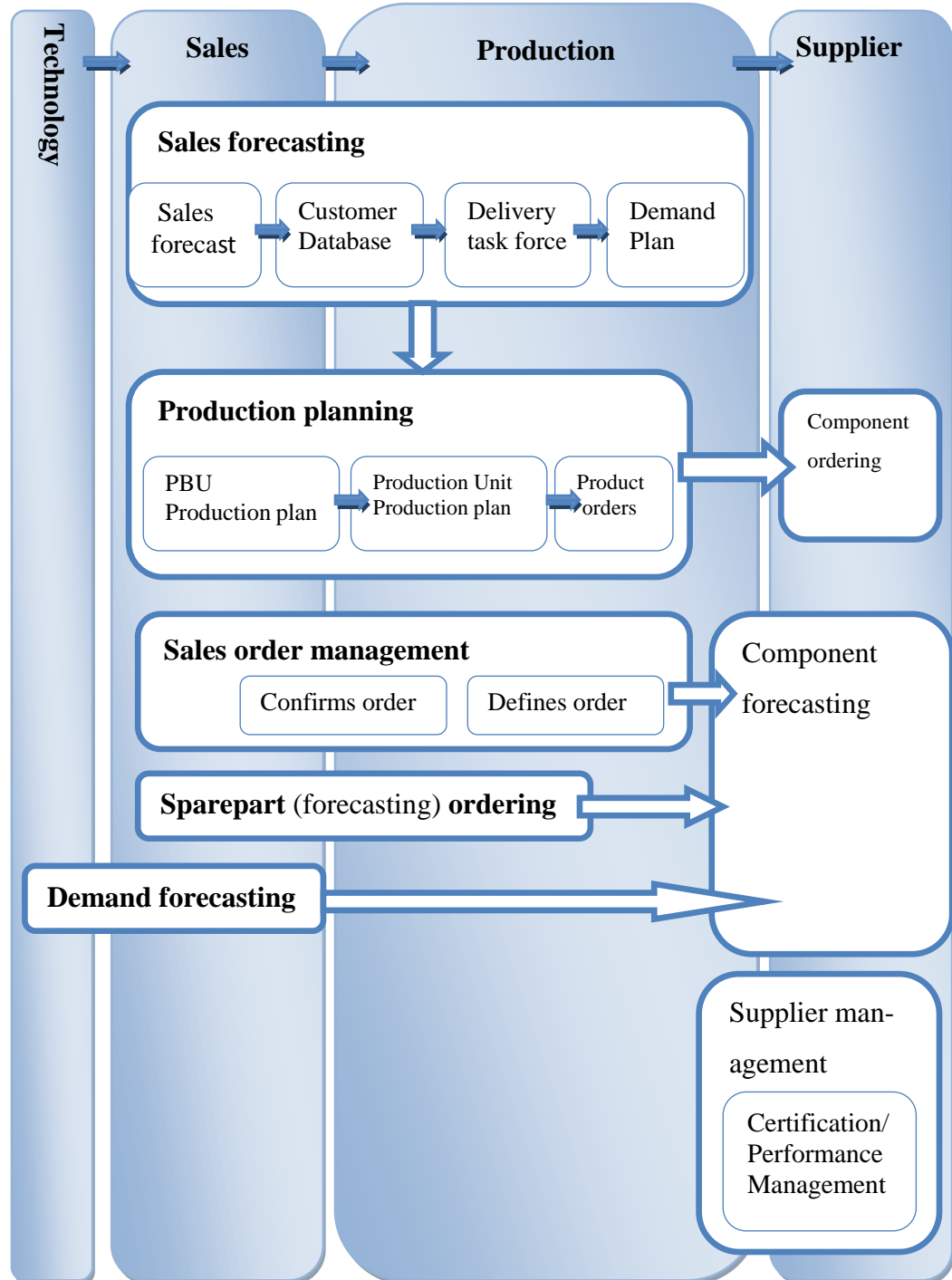


Figure18. Who is responsible in Vestas supply chain?  
(Vestas case study, 2006.37)

Figure19. Summary of Vestas marketing strategy

**Product Strategy**

Goal: creating customer value

Blue ocean strategy: Developing product- offshore wind turbine

Building strong brands in China

(Focusing on customer reliability)

professional workforce training (inside&outside)

VestasOnline® Business SCADA solution

(Ongoing quality control process)

Launched six sigma to Chinese manufactory

Cooperate with BMGI to reach Six Sigma level

Certification: IEC 61400-1, ISO14001 and OHSAS18001

**Price Strategy**

Goal: capturing customer value (value selling)

-Marketing-skimming pricing strategy

-Market entry with a higher price than the average market price, provide high quality and image to support high price

-Establish manufactory in different regions to cut transport money and decrease dependency on currencies in China

**Promotion Strategy**

Goal: increase the awareness of the consumers

- Push promotion strategy

- Participating in the industry events and trade fairs. (eg.EXPO)

- Close and deep communication with CWEA, TWEA and local officials in China (improve contact with political decision-makers)

- Make directly dialogue with customers from value-enhancing interactions

\*Sharing& creation knowledge

\*The ability to respond quickly to customer requests

**Place Strategy**

Goal: delivering customer value

·Training some specialist dealer, sales organization(e.g. Fuzhou)

Exporting wind turbines to Europe

selected reliability transport partner, build long-term relationship in development projects

logistic system in China in different province from different partners

Direct sales to the main target groups

## 5 HOW TO GET THERE

### 5.1 Strategy Accessibility

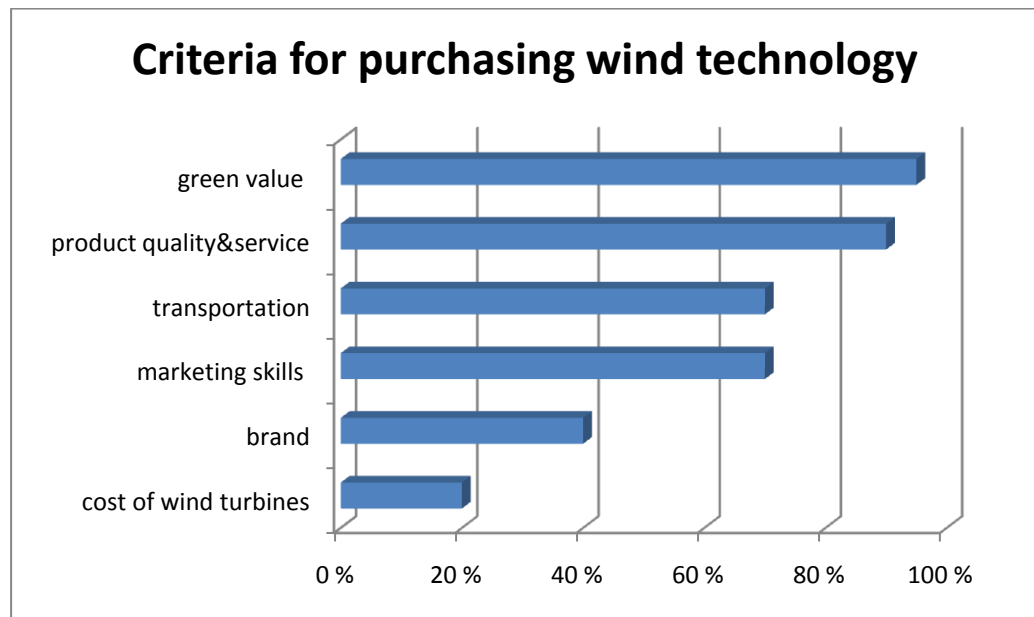


Figure20. Criteria for purchasing wind technology according to the interviewed companies

When questioned about the purchasing criteria for wind technology, the most important factor that came up was green value. The state policy caused the power generation company develop wind technology with green value. When the power generation company bid the wind turbine from the wind technology company, they must make sure the wind turbine offers friendly environment. It includes the wind turbine won't bring bad influence for human beings. Second comes to the quality of product. After the accident of Sinovel, the customer starts to pay more attention of wind turbine quality. The influence is serious if the wind turbine collapsed in the wind farm. It may hurt people and other wind turbines may also collapse then the wind farm needs to rebuild. It costs extra money. 30% of customers prefer spend more money to buy the foreign wind turbines. They think the higher price offers a better quality and service. Although it is 15% to20% higher than the Chinese domestic wind turbines, the customer can get much higher quality and good after-sale service. Then comes to the transportation and marketing skills which means the customer need the on-time delivery and build well-off society. When asked about the brand between the foreign and domestic wind turbines. There is not

much different between them, the customer just prefer high develop prospects wind manufacturers not the price.

The author will assist the case companies to find suitable marketing strategies in market development. First, the author will find which city is suitable for the case companies development.

Because of high outbound transportation costs, geographical closeness to markets is better than to suppliers. The author will analyse which place is closer to the markets in this part.

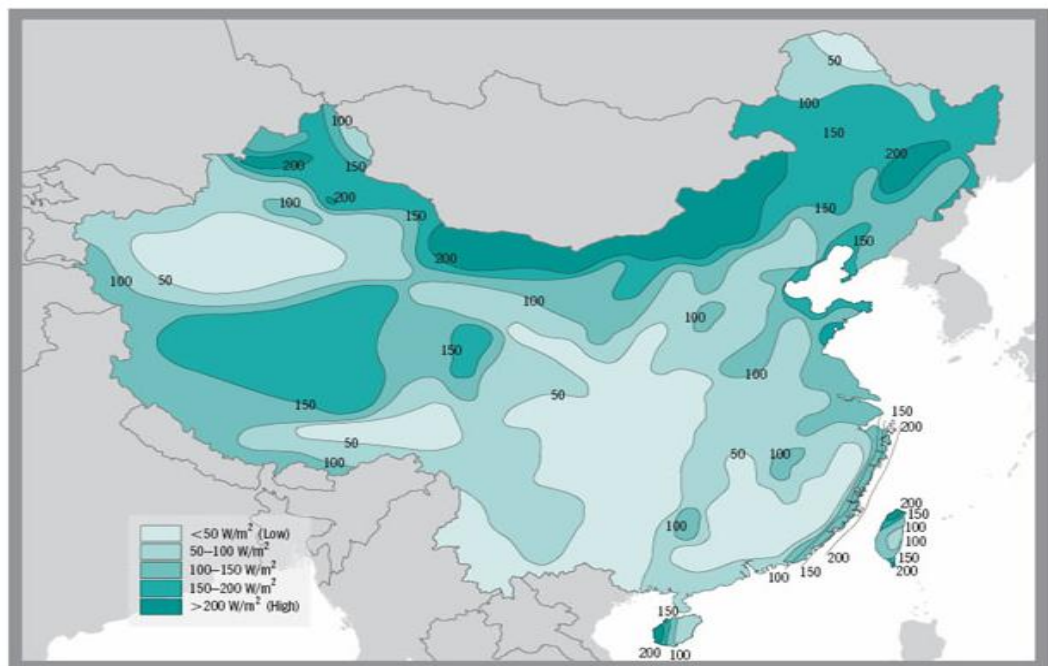


Figure21. Distribution of Wind Power Density in China (Wind power China 2010)

China is rich in wind resources, but the wind strength is fluctuant. The picture represents the strong wind resources which are located mainly across coastal regions (The Chinese coastal line is 14,500 km long) and North and West regions in China. The author makes the following table to shows the relations between geographical distribution and wind power market. Then find which city is the best choice for the case companies development.

Table 5. the relations between geographical distribution and wind power market

Regions (city) with abundant wind resources	Strength(S) & Weakness(W)	Wind power market
Southeastern coastal regions: -Guangdong -Fujian -Zhejiang -Shanghai	-(S) well established power grids and voltage capacity -(S)These special economic zones have large demand for power generation -(W)limited usable land for build wind farms	High substitutes -Wind turbine is a high threat of substitute products. The city may choose other green energy for development. Wind power is not uniquely in this area.
Dry northwest regions: -Xinjiang -Gansu -Inner Mongolia	-(S)Large areas and far away from people. It is suitable for build wind farms -(W)limited power grids covered -(W)location is far away from suppliers and energy companies	Fierce competition (market saturation) -Xinjiang has Gold-wind and Gansu built a world's largest wind farm. -There are many similar wind turbine manufactures in that area.
Northern coastal regions: - <b>Tianjin</b> -Liaoning -Shandong	-(S)TWEA offers good communication environment - (S)Binhai new area District → increased local power demand -(S)Enough land for develop wind technology	Developing stage - These are industry cities. Local economic development requires wind power generation - The world's wind technology leader: Vestas built factory in Tianjin.

The buyers bargaining power is high in the Southeastern coastal regions and Dry northwest regions. Moreover, the wind technology manufacturers will meet the fierce competition there. The case companies need to sell their wind turbines to a wind farm. As the author concerned in the customer's analysis part, the industry park of a city can be a target customer for the case company. The author chooses Tianjin as a best key account. It has the following reasons.

Firstly, economic development activities in Tianjin are directly supported by the national government. Tianjin is an open coastal city in the north. With the involvement of Tianjin Binhai New Area in the national development plan, Tianjin is ready to take a historic opportunity for development (Tianjin basic facts 2010). Following Shanghai Pudong New Area and Shenzhen Special Economic Zone,

Tianjin Binhai New Area is becoming another pole of economic growth which will contribute to the development of regional economy. The following map shows this new economic zone in China-Tianjin Binhai New Area District.

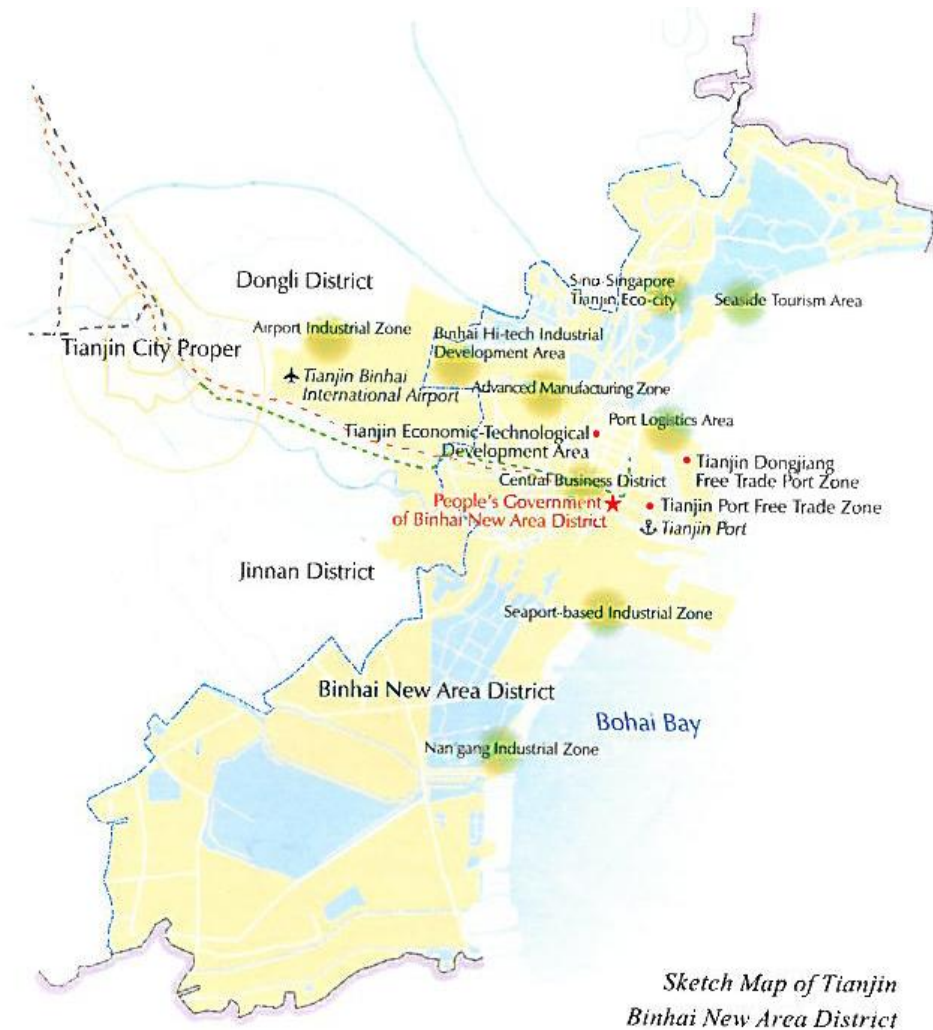


Figure22. Sketch map of Tianjin Binhai New Area District (Tianjin basic fact 2010)

With an important national strategic position, Tianjin Binhai New Area has outstanding comprehensive advantages and development potentials. The green point of the figure represent the consists of 9 industrial function areas in Binhai New Area. The Binhai High-tech Industrial Development Zone includes industry park. That could be a place for develop wind power technology industry. Tianjin Pot is a comprehensive trading port with the 15 largest throughputs in the world. (Tianjin Basic fact 2010)

All these factors bring a good logistics environment for transporting wind turbines. Wind technology companies have to transport wind turbines to the customer and

also the components from the suppliers. Choose Binhai New Area as a place for wind technology companies development is one of the best choice.

Secondly, Tianjin has enough land for developing wind technology industry. The development of Tianjin Binhai New Area is later than other famous special economic zone. Tianjin has more chance to develop green technology. For instance, Shanghai and Shenzhen had used much land for industries development so there is limited usable land for build wind farms. In contrast, after the Binhai New Area join the national development plan, the city start to build more industry park and develop wind technology industry. Most of the land used to be saline and alkaline land, which means the land cannot be used for growing plants. When the city starts use the lands to develop high-tech industry and build Industry Park, it brings much more economic benefit. In 2009, new energy is one of the eight advantageous industries in Tianjin. Binhai New Area has already built 3 wind parks for wind power technology development. The case company can found more chance to sale their wind turbines.

Thirdly, Tianjin has good quality inspection and supervision. The independent innovation capability has been further enhanced. In 2009, 12 national scientific and technological innovation platforms were basically completed in Tianjin. Tianjin also has the quality inspection and supervision. Intensified efforts were made to improve quality and technology supervision. From the official passing rate of each supplier, the wind technology companies can choose a good partner easily. In 2009, 3,169 batches of products from 2,769 manufacturing enterprises received regular supervision and inspection, and the batch pass rate was 91.7% (Tianjin basic fact 2010).

Finally, Tianjin set up a wind energy association on February 16, 2008. TWEA is the first professional wind energy association in China and supported by Tianjin high-tech Industry Park. It offers good communication platform for the wind turbine manufacturers and customers. Meanwhile, there is a R&D center located in Tianjin. The Center's engineering team of 40 scientists and technicians employ best in class processes. The team is expected to grow with the increased need for high-tech products in China. (Honeywell China, 2010)



On the other hand, the wind technology companies will meet threat of Vestas. Vestas has strong competitive power. Actually, more than half of Vestas' wind turbines will export to Europe and America. So it is not a serious challenge for the Chinese domestic wind technology companies.

Because there are many raw materials involved in manufacturing wind turbines, the ready-made components are huge, long production cycle, and high cost. Building the effective supply chain is important for the wind technology companies to provide high quality products on time. This is based on the long-term relationships with reliable partners. For example, work with COSCO can be a choice to build a friendly transportation environment. COSCO also located in Tianjin port. COSCO has big container for transport blade of wind turbines. COSCO group has working experience with many wind turbine manufacturers. This brings effective logistics environment. The author chooses Tianjin as a key account. She will use following figure represent Tianjin is powerful to develop wind technology companies.

Table6. SWOT analysis of Wind Power Industry Development in Tianjin, China

<b>STRENGTH</b>	<b>WAEKNESSES</b>
<ul style="list-style-type: none"> <li>• Friendly environment</li> <li>-serving one of the most important Chinese sea port</li> <li>-convenient transport: key hub of land and sea communication</li> <li>• Available wind resources</li> <li>-geographical location is available</li> <li>-enough land for develop wind technology</li> <li>• Olympic economy brings rapid development of wind market</li> </ul>	<ul style="list-style-type: none"> <li>• R&amp;D among the industry is still lack of capability to create high quality product.</li> <li>• Lack of professional training</li> <li>• need to perfect the regional manufacturing system</li> <li>• Low degree in large scale production and industrialization</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>• The national policy aim to develop of Binhai new area district which include increased local power demand</li> <li>• Continuously increasing demand for wind power in the international market</li> <li>• TWEA support good communication environment and system planning for development of wind power</li> </ul>	<ul style="list-style-type: none"> <li>• The world's wind technology leader -Vestas built factory in Tianjin.</li> <li>• In need of raising people's awareness toward wind power otherwise the official may choose other sustainable energy</li> </ul>

In the following part, the author will give the findings of the **production** strategy. There are almost 80 wind turbine manufacturers in China. Under the fierce competition between the wind technology companies, open a blue ocean strategy is required for the case companies. China is rich in wind resource, especially rich in the offshore wind resource. Developing offshore wind technology can contribute to Chinese wind power development security and diversity.

The state is at the testing level of developing offshore wind power. There is no existing infrastructure of offshore wind farm. Some foreign manufacturers are starting research and development offshore wind turbines in China. To be a pioneer could get a chance to be the market leader and take high price in offshore wind market. This is a chance for the case companies to improve their product quality and manufacture offshore wind turbines. If the case companies could manufacturer the offshore wind turbine and communicate with the decision makers to build offshore wind farm, these companies could be pioneers and potential market leaders. However, to produce the offshore wind turbine requires high level of technology and proficiency. If they still have the quality problems, they will lose the offshore market.

Starting to manufacture offshore wind turbines and site the offshore wind farm could open a new market(blue ocean strategy) in Chinese wind power technology industry. The case companies meet a challenge of customer reliable. After the accident of Sinovel, some power generation companies start to buy foreign manufacturer wind turbines. The case companies need to improve the product quality and increase the awareness of the customers. A good wind turbine will bring a strong brand and created in the customers mind. So provide the best quality of wind turbines would be the most effective way to develop the case companies. The author will expatiate how to improve wind turbine quality from benchmarking Vestas product strategy.

#### 1. professional workforce training

To ensure the effectiveness of strategic planning process, the case companies need, above all, to cater for the customer. This involves training the employees of power generation company.

Although the power generation companies employed professional engineers to work in the company, the workforce still has lack knowledge of the product. The wind turbine is manufactured by the wind technology companies. The communication between them is needed. It required a professional training of how to control wind turbines can safeguard the staff against accidents when they are working in a wind farm. The case companies may offer the right combination of wind turbine quality and good service. The service can include training workforce from the power generation company. This is also what the customer need in urgent.

## 2. Use SCADA system for better service

A SCADA system is important for a wind farm, especially if it has to operate as a power plant. It is impossible to have the overview and make the report without such a system like SCADA. It is an effective tool for the wind turbine maintenance and can be combined with a conditioning monitoring system. Use SCADA system can help the case companies offer better service, such as a clearly report of wind turbine operate in the wind farms. This is a win-win business tools for both case companies and power generation companies. (CONMOW 2011)

## 3. Launch Six Sigma as a group's key quality improvement tool

Wind power technology companies may reduce stocks by using six sigma. BMGI has already helped many famous companies make a successful six sigma system. Vestas is one of the cases profited from BMGI. BMGI also has a subsidiary company in Shanghai, China. Because of China is lacking of relevant six sigma talents. Cooperating with BMGI and getting more professionalism six sigma systems to improve the wind turbines quality. It is suitable product strategy for China wind turbine technology companies.

## 4. Launch new services of wind turbine certification

The testing is required before the wind turbines are ready for a large scale commercial launch. The international standard of wind turbine includes IEC 61400-1, ISO14001 and OHSAS18001. At the beginning of this year, China opened SGC wind technology center for testing the wind turbines. It located in Tianjin Binhai New Area. IEC 61400-1 is an international standard. It is suitable for

European wind technology companies like Vestas. Because of the different wind environment and different policy, some parts do not suit Chinese wind turbine manufacturers. SGC will be valid fill the gaps in testing and certification. Vestas also meets the quality problems before, and then they change new quality product to the customers when they find the problems themselves. SGC will also help the company to mapping a correct process for wind turbine manufacture. The wind technology companies may test their product before sell to the customers. If there is a problem with the turbines, they can correct it. Otherwise, if the wind turbine were broken in the wind farms, the customers will not buy the product of this brand anymore. This is the reason why Long yuan power generation company do not buying Sinvel's wind turbine nowadays and switching other wind turbine manufacturers. All in all, test the wind turbine and get the certification will bring benefit to the case companies. Furthermore, the wind technology companies can obtain third-party testing and certification in China from SGC (Zhou Ning 2011).

There is little Chinese wind technology manufacturers testing their wind turbines in official way. The government also needs to enact relevant law of wind turbine quality standard testing. On the other hand, after the accident of Sinovel, the customer also want to see the certification of wind turbines. This will also help the wind technology companies manufacture wind turbines in a harmonious way.

When the case companies can offer better quality wind turbines, they can start the "value selling" strategy. Chinese wind technology companies are using market-penetration pricing. When asked about the price acceptability of wind turbines. The statistics shows over 80% of officials were willing to pay higher price to get better service and high-tech wind turbines. The officials believe they have the responsibility to stop the malfeasance pricing competition. Slightly 10% were willing to buy the cheaper wind turbines. About 65% of customers believe foreign wind turbine manufacturer's quality is better than domestic companies. They got good service from foreign wind turbine manufacturers. That means the domestic wind technology companies are start losing the customer loyalty.

To way to end the improper pricing competition is never reduce product quality or service to decrease wind turbine costs. The case companies may set the value selling. This is one of Vestas pricing strategy. The first stage of value selling is

access customer needs and value perceptions. This depends on communicate with customer and then decide what kind of service the company can offer to reach customer's demand. For example, training the relevant staff who works in the wind farm. Then the case companies may set the target price to match the customer perceived value. The last stage is design product to deliver value at target price.

Vale selling can be a way in pricing strategy for the case companies. All in all, never reduce product quality or service to manufacturer a cheap wind turbine.

The most important thing is how to increase the awareness of the customers. The author wills expound it in the following parts.

#### 1. Improve promotion strategy

When asked about which way of marketing promotion convinces the customer best, most of the customers chose all the three options of the questions, which include see an advertisement, get a product specification and join the trade events. It shows every way to see or taste the product could increase the awareness Chinese customers.

Participating in the industry events and trade fairs brings positive influence to the wind technology companies. For example, Vestas participate in Shanghai World Expo 2010 to display the importance of wind energy to Chinese sustainable development. Vestas got positive experience from the public relations. Several official leader participated Expo and endorsed Vestas contribution to Chinese wind power development.

Two major customer of large-scale wind turbines are cities Industry Park and power generation companies. These kinds of trade events build a bridge to communicate with customers and improve public promotion. The case companies need to participate in the industry fairs and meet more decision-makers. During this year, the case companies may attend two events "China Wind Power 2011" in Beijing and "Offshore Wind China 2011" in Shanghai. Trade promotion activities may create consumer demand for buying wind turbines. Although this event costs a lot of money, it could increase the awareness of customers. This is a major type of promotion strategy in Chinese wind technology industry.

Once customers believe that wind power could be a part of daily life, the wind power market will increase rapidly. There is little city has the billboard of wind power technology. For example, Tianjin is the researcher's hometown. She had never seen any advertisement or billboard publicize wind power in Tianjin. Wind turbine is a kind of a high-tech product and far away from Chinese people. Chinese does not know very much about the advantages of wind energy, how the renewable energy changes peoples life.

Because of this low awareness, the author found that building a special billboard in a city may improve people's awareness. Due to the construction of wind turbine, the billboard can be build like the form of wind turbine. Wind turbine is consisting of three blades and tower. The billboard can be made by three separate part of and each of them has two sides. Every side will introduce the company's product or vision. The bearing can combine the three separate parts together. The nature wind can be the rotation force of the billboard. The tower can be taller enough for good sight and catch the wind to be used. When the wind comes, every people cross there can see the billboard in different sides. People can see a clear image of wind turbine and also the advertisement of wind power technology companies.

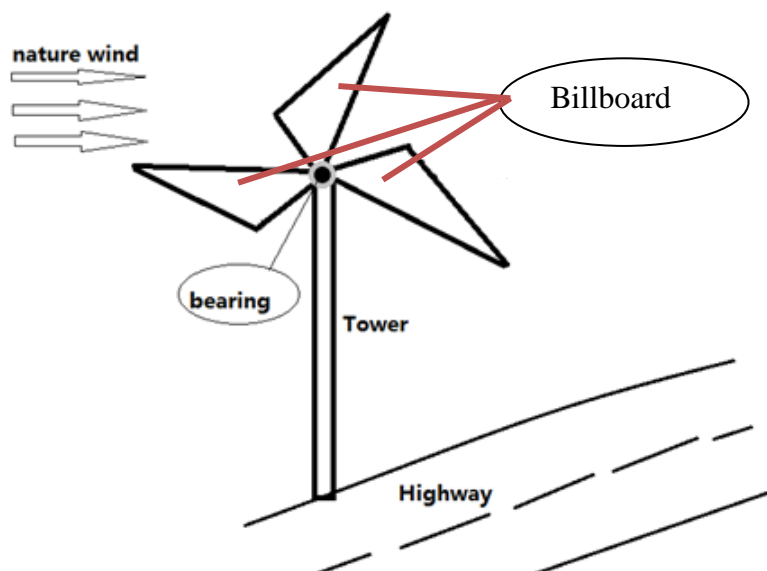


Figure23. Billboard for wind technology companies

## 2. Cooperate with university

Vestas has “Graduate Programme” to communicate with university students. The case companies can also cooperate with the Chinese University develop wind power projects with a joint.

The Relevant University includes:

- Tsinghua University
- North China Electric Power University } North of China
  
- Hubei Electric Power University
- ChongQing Electric Power College } South of China

In wind power industry, key technologies and reliability of the equipment needs to be improved. In order to bring up these kinds of engineer and solve the technology problems, the relevant universities in China establish majors of wind science and technology. The students have received a top quality of Chinese university education. They had learned professional knowledge of wind power at school such as analysis of a stretched blade, micro site of wind farms, and measurement of wind speed etc. The schools also invite foreign teachers to come to China and teach students the professional knowledge of wind technologies in their countries such as Denmark and America.

Chinese wind technology companies could cooperate with universities to develop wind power projects. The case companies are still lack of high technologies of wind turbine. Some of them still rely on foreign manufacturer’s core technologies. Build a communication platform between the student and company could come up with novel ideas to develop wind power projects. The students have their own study backgrounds leading to different kinds of ideas and creativities. They also have team work and training activates at school.

According to survey the university students, 85% of the students want to cooperate with wind technology companies. They think this is a way to improve their studies. If they get a chance to do practical training in wind technology companies, they can combine theory with practice excellently. 43% of them wish to be a wind power engineer and contribute to the countries development of renewable energy industry in the future.

The case companies could find a school which is near the company. Because some of the students are still study, most of the times they need to stay at school. Then the company can make cooperation with that school. More and more student will contribute for the company in the future.

### 3. Make directly dialogue with customers

First of all, the case company needs to build a marketing communication platform. The case companies and customer could share and create knowledge to develop wind technology industry in China. According to interview, most of the case companies just have once dialogue with customer after selling the wind turbines. This situation needs to improve. The case companies need to look into the customer loyalty index each year. The loyalty survey could test whether the customers really feel their needs are met or not. No matter the feedback is good or bad, it shows the willing that customer want to work with dialogue. The company could find the causes of the problems and dealing with them. The companies' responsiveness to customer requests may impress the customer favorably, thus leading to long-term business relationship.

Vestas could complete the 100 items installation of wind turbine at the Thanet Offshore Wind Farm within 100 days, because of supplier and customer work as a team to provide customer satisfaction. The case companies could also achieve this goal if they make a direct dialogue with customer. It will bring high efficiency at work.

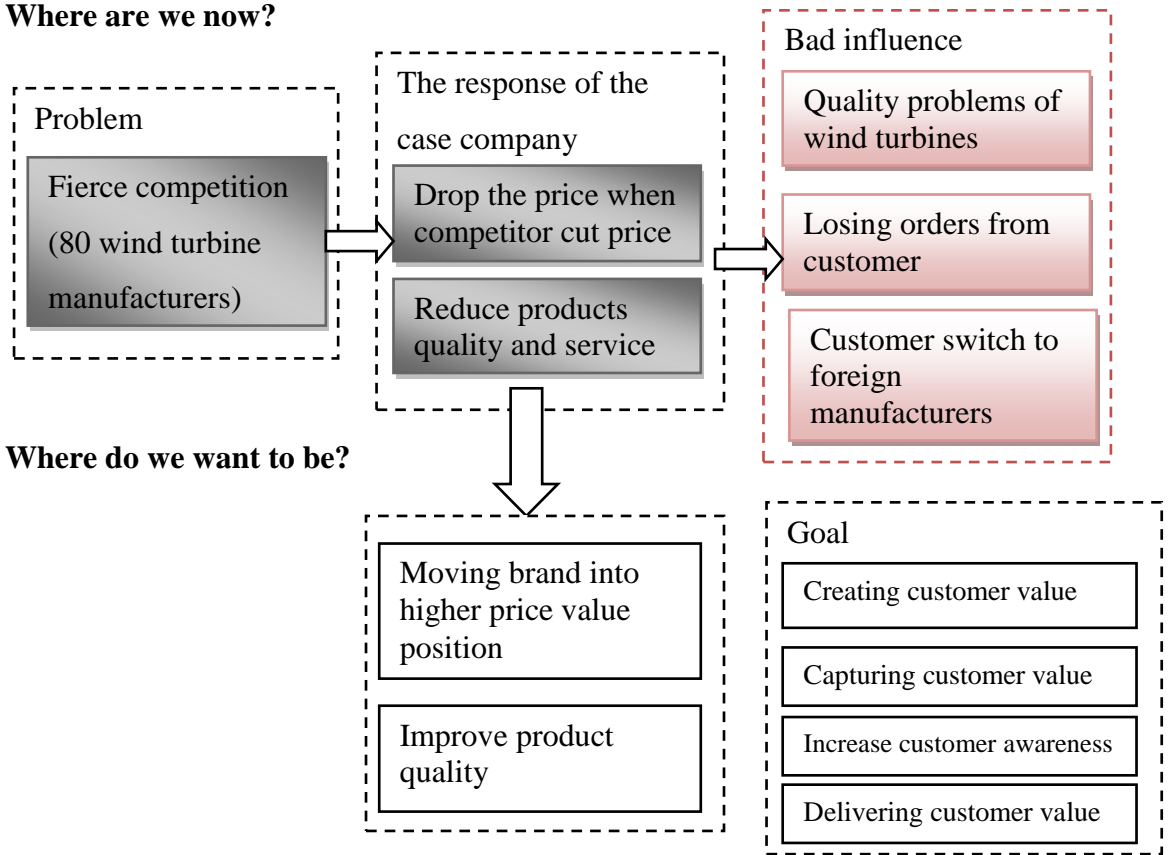
When they built a strong team spirit and direct communicate with customer, the process will go on smoothly. The communication process could be built like Figure16. Each part has the responsibility in the communication platform.

The author use the following figure represent the key findings in this thesis, those case companies may have a very good chance of survival in the fierce competition and of being exemplary trailblazers in Chinese wind power industry.



5.2 Findings

Where are we now?



How will we get there?



Figure24. Summarize the key findings of this study

## Step3: New marketing strategy

Research questions	Findings (from benchmarking Vestas' strategy)
How to make the product meet the customer's need?	<ul style="list-style-type: none"> <li>• Blue ocean strategy: Developing product-offshore wind turbine</li> <li>• training the employees who works in a wind farm</li> <li>• Use SCADA system for better service</li> <li>• Launch six sigma and cooperate with BMGI</li> <li>• Launch new services of wind turbine certification: SGC wind technology standard</li> </ul>
What would be the best pricing strategy in the market?	<ul style="list-style-type: none"> <li>• value selling</li> </ul> Never reduce product quality or service to manufacturer a cheap wind turbine.

**What kind of promotion methods do the customers value?**

Marketing Communication	Reason & Goal
<ul style="list-style-type: none"> <li>- Participating in the industry events and trade fairs               <ul style="list-style-type: none"> <li>• “China Wind Power 2011” in Beijing</li> <li>• “Offshore Wind China 2011” in Shanghai</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Meet more decision-makers</li> <li>- Find more opportunities to expand their sales market</li> <li>- Know your competitor's new product</li> <li>- Exchange information with other manufacturers</li> </ul>
<ul style="list-style-type: none"> <li>- Cooperate with university               <ul style="list-style-type: none"> <li>• Tsinghua University</li> <li>• North China Electric Power University</li> <li>• Hubei Electric Power University</li> <li>• ChongQing Electric Power College</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Develop wind power projects with a joint</li> <li>-The students have their own study backgrounds leading to different kinds of ideas and creativities</li> </ul>
<ul style="list-style-type: none"> <li>- Cooperate with organizations               <ul style="list-style-type: none"> <li>• CWEA</li> <li>• TWEA</li> <li>• local officials</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Improve contact with political decision-makers</li> <li>- Update policies from the official</li> <li>- Latest inviting public bidding</li> </ul>
<ul style="list-style-type: none"> <li>- Build billboard of wind turbines</li> </ul>	<ul style="list-style-type: none"> <li>- Once customers believe that wind power could be a part of daily life, the wind power technology market will increase rapidly</li> <li>- Promotion strategy for wind technology companies</li> </ul>
<ul style="list-style-type: none"> <li>- Make directly dialogue with customers</li> </ul>	<ul style="list-style-type: none"> <li>- direct dialogues with customers through value-enhancing interactions</li> <li>- bring high efficiency at work</li> </ul>

Figure24. Summarize the key findings of this study

## 6 CONCLUSION

China is a country with a rapidly growing economy, the energy consumption is increasing sharply. The state government enacted policies to support wind power development and, currently, there are almost 80 wind turbine manufacturers in China. Therefore, the competition in the wind power technology market becomes fiercer and fiercer. Some domestic wind technology companies lack market analysis, which leads to inevitable failure in the final output. For instance, when competitors cut prices, some manufacturers lower their wind turbine prices, reducing product quality and after-sale service to manufacture more wind turbines. This leads to the shoddy workmanship of some wind turbines. As a result, some customers start to switch to foreign wind turbine manufacturers. Those case companies need to adopt a new marketing strategy to gain credibility from their customers and increase the awareness of the customers.

The problems under discussion can be divided into two categories, each having its own solutions, which, I hope, could be adopted by Chinese domestic wind technology companies. One solution is a reevaluation of the wind power technology market in China and the other involves benchmarking Vestas marketing strategy with the possibility that Chinese domestic wind technology companies can learn from it.

The study provides useful suggestions for the case companies when they start to build up a marketing strategy in the fierce competition. In addition, the thesis offers a theoretical understanding of strategic planning process and empirical understanding of Vestas marketing strategy. As a market leader, Vestas succeeded in China through a powerful marketing strategy. The case companies need to benchmark a strong competitor like Vestas and improve the marketing strategy. Based on benchmarking Vestas, I analyzed the Vestas annual report, Vestas' magazines and interviewed some employees in Vestas Wind Technology (China) Co., Ltd. From the survey, I found what the reliable suppliers, strategic customers and strategic transportation companies are. Those business partners play an important role in the realization of the case company's vision. For instance, altering a supplier costs a company large sums of money due to additional R&D cost. Working closely with the reliable suppliers of components and raw materials and

establishing long-term business relationships with them can thus improve the sustainability of the wind turbines. Furthermore, working with a strategic transportation company like COSCO GROUP can help ensure a friendly transport environment and on-time delivery.

To ensure the effectiveness of strategic planning process, the case companies need, above all, to cater to the customer. It involves training the employees of the power generation company. The professional training of how to control wind turbines can safeguard the staff against accident when they are working in a wind farm. Though the case companies can produce wind turbines on a large scale, they need, nowadays, to expand their business to the production of offshore wind turbines for further development. The offshore wind power market is still full of possibilities and opportunities. It is like a blue ocean where no one has stepped into. If the case company could manufacturer the offshore wind turbine and communicate with the decision makers to build a offshore wind farm, these companies could be pioneers and have a chance to be a market leader. However, to produce the offshore wind turbine requires a high level of technology and proficiency. I found out that the case companies could cooperate with universities to develop wind power projects. The students, with their own study backgrounds and their creativity, could come up with novel ideas. It will lead to different kinds of creativities. The concerted effort of the wind technology companies and electric power university is conducive to a win-win strategy.

Furthermore, in order to increase the awareness of the customers, the case companies need in-depth discussions with local officials in China, such as CWEA and TWEA, and direct dialogues with customers through value-enhancing interactions. Dialogue does not come of itself and closer ongoing dialogues, which enable the companies to realize their mistakes and mend their ways, brings high efficiency at work. The companies' responsiveness to customer requests may impress the customer favorably, thus leading to long-term business relationship. The wind technology companies might as well adopt the promotion strategy of participating in the industry events and trade fairs like expos- excellent opportunities to expand one's sales market and to meet more decision-makers who may reveal the latest public bidding invitation news.

Drawing on the theories and key findings in this thesis, those case companies have a very good chance of survival in the fierce competition and of being exemplary trailblazers in Chinese wind power industry.

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## APPENDICES

## APPENDICES 1. Questionnaire for interviews of power generation companies

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Questionnaire for interview/ Shi Yi

[shiyi@lpt.fi](mailto:shiyi@lpt.fi)

Office or Authority:

Name and title of the interviewee:

Time and place of the interview:

1. Can you tell something about your responsibilities in this organization?
  2. What is your experience of Industry Park in your profession?
  3. How will you decide making in buying a kind of wind technologies?
  4. Which option has promising in the industry park of your city?
    - Wind Energy
    - Solar Power
    - General Electricity
    - Other
  5. What are the important criteria for purchasing wind technology?
    - Brand
    - Cost of wind turbine
    - Product quality and service
    - Green value
    - Marketing skills of the company
    - Transportation
  6. Which brand do you like most?
    - Vestas
    - Gamesa
    - GE wind
    - Sinovel
    - Goldwind
    - Dongfang
  7. Which way of marketing convinces my best?
    - See an advertisement (e.g. billboard)
    - Got a product specification
    - Join the trade events or fairs
-

APPENDIX 2. Questionnaire for interviews of wind technology companies

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Questionnaire for interview/ Shi Yi

[shiyi@lpt.fi](mailto:shiyi@lpt.fi)

Company name:

Name and title of the interviewee:

Time and place of the interview:

1. How long have you worked in this company?
  2. Is the company has a key supplier or several? Which supplier is a reliable one you think?
  3. What kind of testing you have before the products are ready for commercial launch?
    - OHSAS18001
    - ISO14001
    - IEC 61400-1
    - SGS wind technology standard
  4. What kind of communication does your company have with other groups?
    - CWEA or TWEA
    - University
    - Other wind technology companies. Which? \_\_\_\_\_
    - Dialogue with customer
  5. How long do you have dialogue with your customer?
    - More than once a month
    - Less than once a month
    - One time (just after sale)
    - Never
-

APPENDIX 3 Marketing Research Questionnaire for Students  
(Electric Power University/College)

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Questionnaire for interview/ Shi Yi  
[shiyi@lpt.fi](mailto:shiyi@lpt.fi)

School's name:

Major:

Year of study:

1. What kind of course you have relevant to the wind technology?
  2. Do you want to cooperate with wind technology companies to joint develop wind farm projects?  
  
 Yes  
 No
  3. Do you have team works at school? How often do you work with your groups?  
  
 Every day  
 Every week  
 Every semester  
 Never
  4. Do you think cooperate with wind technology companies can improve your study?  
  
 Totally agree (practical training)  
 Neither agree nor disagree  
 Totally disagree (It waste my time)
  5. Your study is electric power. Which kind of companies you want to work in the future?  
  
 Wind technology companies  
 Solar technology companies  
 Hydro-electric power companies  
 Others
-