# THE QUALITY STRATEGY: AN EMPIRICAL STUDY AT **FINNVEDEN COMPANY, SWEDEN**

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# Abstract

The main aim of this research paper is to investigate quality strategies which companies use in order to build trust in their customers. Respectively, the purpose with this paper is to analyze how a company in the car manufacturing industry can improve the quality its relationship with customers; thereby building long term cooperation. Since quality and delivery precision are important factors of success that Finnveden group, Sweden points to in their home page it is the quality as a factor, as well as a strategy, that we consider interesting to analyze. Until now there is a lack of study in this field of quality strategy in the context of international marketing strategy. This will be scientifically based research which will shed light on the existing discipline, but in a new way of treating the B2B relationship.

Keywords: Strategy, quality, international marketing, customer relationship, trust

# INTRODUCTION

We are all aware of the fact that cars are nowadays an important part of our daily lives. The auto industry in European countries continues its phenomenal growth. Today's customers have many different opportunities and choices when it comes to the selection of diverse models, engines and interior designs. In the European car market there is a constant battle for market share between the different car manufacturers.



According to Jurgens (2004), there has been between 140 and 180 different kind of car models on the German market during the 1980s. This number has increased to 260 in year 2000. Jurgens (2004) also explains that the number of diverse alternative car varieties, like for example off-road, cabriole and roadster, increased from around 240 in the 1980s to 360 in 2000. These numbers can, according to Jurgens, be seen as an even better indicator of the intensifying diversification.

The German auto industry has, according to Deutsche Bank 2008, increased its production during the last years and managed to constantly break its own records. They also states that the export of cars (per unit) has increased with about 11%, only in 2007. For the same year, incomes for the auto industry as a total are up 7%.

Finnveden (2008), states that the company is an international engineering group with strong positions in selected market segments and production in Sweden, Germany, England, Poland and China. The company was founded in 1951 by Torsten Ullman in Helgöbrinner, and called Torsten Ullman AB.

Finnveden has two business areas, Bulten and Metal Structures. The Finnveden Group is a leading supplier to the car and commercial vehicle markets. The company has about 1 800 employees and a turnover of approximately SEK 3 billion. The headquarters are situated in Gothenburg, Sweden. (Finnveden 2008)

The company develops and manufactures customers specific components based on metallic materials, also complex precision components and subsystems on assignments from the automotive industry. The company is enabling to offer customers within the international automotive industry the total value chain from development to manufacture and delivery thanks to the development of know-how and comprehensive knowledge of industrial production and logistics. Furthermore, Finnveden has its own companies in Sweden, Poland, England, China and Germany. Since Finnveden has an automotive industry in Olofström, we have decided to concentrate on this department. (Finnveden 2008)

The production unit in Oloftröm is in the business area Metal structures. The industry develops and produces multi-material interior and exterior structures for a car and truck applications. Finnveden Metal Structures is a leading European supplier of multi-material structures. (Finnveden 2008)

# Products

Finnveden Metal structures have three segments of product. They are Body/Cab, Interior and Chassis. The main part of the products produced fall into the Body/Cab segment. Some examples of those are different sheet metal components, body reinforcements and crash



protection structures. In the segment of Interior are for example different sub modules for seats, instrument panels and retractable hard and soft tops. On the last segment, the chasse, include engine sub frames, steering and suspension components. (Finnveden 2008)

#### Customers

The customers of Finnveden are mainly active in the automotive industry. Some of the biggest customers are Volvo Cars, Scania, Ford, Daimler Chrysler, Land Rover, Volvo Trucks, Autoliv and others. Since a part of the purpose of this paper is to analyze one European customer, we decided to study Ford as the European customer. Because Ford is a well-known company and the world's third largest automaker based on worldwide vehicle sales, we felt that it would be interesting to investigate the company more deeply. (Finnveden 2008)

Ford Motor Company is an American multinational corporation and was founded by Henry Ford and incorporated on June 16, 1903. Today the company includes a lot of global brands, for example, Mercury of the US, Jaguar and Land Rover of the UK, and Volvo of Sweden.

Ford Germany was the subsidiary of the American automaker Ford Motor Company, which existed under various names from 1925. The Ford Company in Germany was established in Hamburg in 1912, but until 1925 an assembly plant was constructed in Berlin where the Model T truck were produced from imported parts and cars were made in 1926. In 1931 the production moved to a new plant in Cologne and an increasing quantity of the vehicles was made in Germany rather than imported. The Model A, jointed by the Model B in 1932 was the first car off the new production line. In 2007, Ford revenues increased to 173, 9 billion dollars, while producing 6 553 million automobiles and employing about 245 000 employees around 100 plants worldwide. Ford has also in 2007 received more quality survey awards from J. D. Power and Associates than any other automaker. (www.ford.com, 2008)

One of Finnveden's most important customers is Ford. We believe that these components that are being sold to Ford are components that many other suppliers are able to produce. Because of this, it is important for Finnveden to maintain a good relationship with this customer. The decision problem for the company is how to be able to maintain the good quality in this relationship and thereby keep this customer.

#### **Problem Analysis**

"Strategy is the direction and scope of an organization over the long-term, which achieves advantages in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations." Johnson et al., (2005)



Johnson et al., (2005) said that an essential strategic capability in any organization is to ensure attention is paid to achieving and continually improving cost efficiency. To reach an optimal strategic capability, the company has to have both appropriate resources and the competences to manage cost. This will benefit the customers from cost efficiency in term of lower prices or better product quality for the same price. The cost efficiency becomes a threshold strategic capability for many companies in many markets based on two reasons. (1) Because customers do not value product features at any price, and (2) the competitive rivalry require to drive down the cost because of competitors will try to reduce their cost so as their rivals while offering similar value. Johnson et al., (2005) summarized that the management of the cost base of an organization could be a basis for achieving competitive advantage.

According to Rosenkranz and Weitzel (2007), there are two strategies that are discussed in order to positioning the products strategically. Cost leadership and product differentiation. The competitive strategy is strongly influenced by these strategies defined by Michael Porter (1980), who said that combining multiple strategies is successful in only one case. He pointed that combinations like cost leadership with product differentiation are hard to implement due to the potential for conflict between cost minimization and the additional cost of value-added differentiation. Further Rosenkranz and Weitzel (2007) said that in the strategic positioning of the company, managers should be aware that a polarized concept of cost leadership and product differentiation as two mutually exclusive options may lead to suboptimal results.

Furthermore Groth and Kinney (1994) said that cost management is an important factor that can have a phenomenal effect on the value of a company. They also said that professionals have long recognized and given attention to the important area of cost management, due to the benefits of cost management in terms of the reduction of business risk and the creation of value.

According to White (1988), the need for a far more global perspective is very high, because of growing markets and more international activities. Companies are constantly seeking ways to be able to manufacture and deliver machine components more cost effectively and to higher quality than competitors. Countries with good infrastructures and transportation needs are countries which are good long-term targets for the engine manufacturer companies.

White (1988) also states, that because of operating on a global market, the company is faced with threats from foreign competitors. To be able to protect its self the firm must work hard on several things. One of this issues is performance, which, when perfectly executed, becomes quality for both the company and its customers. If a competitor offers better quality, one solution for the company can be to develop a specific goal in the quality area, which then can be broken down into several miner goals that fit the firm's different sections. To be able to set up these



goals, the competitor must be closely monitored and examined and the entire company must be motivated to achieve higher excellence throughout the whole production process.

Peters (1998), states that quality is one of the most important issues in the automobile industry. According to Jacobs (2007), the company needs to consider how the outcomes of product cost and quality impact the performance. Otherwise the firm cannot be able to compete on the global market. Product modularity decreases costs throughout the whole production line because of fewer unique components and little need for adjusting the assembly line. When it comes to modularity and quality, standardization can be a key to increase the product's superiority. One explanation is that modularity makes it possible to isolate possible problems with components much easier. Product modularity also leads to a clearer company image, which effects how the customers perceive quality.

According to Peters (1998), car manufacturers in Germany purchase most of their components from outside suppliers with which they have close relations. Most of the times, the manufacturer chooses to only buy from a small number of sellers. Because of this, there is a large competition between sellers, and quality becomes a very important issue.

## Purpose

To analyze how a company in the car manufacturing industry can improve the quality of the relationship with its customers, and thereby build long term co-operations.

# Delimitations

Study is only going to focus on Ford in Germany. Further, the whole product range is not going to be studied.

#### **Research Question**

Based on the problem analysis the following research questions were developed.

- How can Finnveden Metal Structures include the quality improvement to reach higher market share in relation to other competitors in the automobile industry?
- How can the relationships in the strategic planning be used to offer higher valued cooperations with the main customers?

# LITERATURE REVIEW

According to Johnson et al. (2005) there are three levels of strategy, first Corporate-level strategy: Is concerned with the overall purpose and scope of an organization and how value will be added to the different parts (business units) of the organization; second business-level



strategy: Is about how to compete successfully in particular markets and third Operational-level strategy: Is concerned with how the component parts of an organization deliver effectively the corporate- and business-level strategies in terms of resources, processes and people.

Be given the task of formulated two alternative marketing strategies for a potential Swedish supplier delivering to a European car manufacturer, we regard that the business-level strategy it's more appropriate.

# **Quality Definition**

There are different definitions of quality, lets us look at Deming's definition of quality. Quality is a predictable degree of uniformity and dependability, at low cost and suited to the market (Gitlow H 1995). Juran, just like Deming, also studies the management of quality and defines quality as follow, "Quality consists of those product features which meet the needs of customers and thereby provide product satisfaction. Quality consists of freedom from deficiencies." Juran's thinking about managing quality is concentrated in a trilogy of management processes: Quality Planning, Quality Control and Quality Improvement. (Pike, 1996)

# **Quality Planning**

(1) Determine who the customers are. (2) Determine the needs of the customers. (3) Develop product features which respond to customer needs. (4) Develop processes which are able to produce these features. (5) Transfer the resulting plans to the operating forces.

# **Quality Control**

It's a process to achieve product goal. A control processes in order to control quality. The quality control process start by evaluate actual operating performance, compare actual performances to goals and act on the difference.

# **Quality Performance**

By attention to this process, waste can be reduced or eliminated. This process is the most significant of the trilogy. It is a continuous search for improvement not just in the quality of the product but also in the processes employed. (Pike, 1996)

# **TQM-** Total Quality Management

There are different definitions to the concept Total Quality Management (TQM). After reading some of them, it is John Oakland's definition the one that comprise the whole significant of TQM. Oakland said, "TQM is a way of managing to improve the effectiveness, flexibility and



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competitiveness of a business as a whole. It applies just as much to service industries as it does to manufacturing. It involves whole companies getting organized in every department, every activity and every single person at every level."

According to Pike (1996), today's industries are on a turbulence world that is change because of the advances in technology, demographic changes, the opening up of central and eastern Europe etc. The managers of manufacturing industries have to think deeply about the quality improvement. Furthermore according to Breyfogle (2001), Total Quality Management is a new advance which is important to the survival of the company. One version of TQM is Six Sigma. It is see as an advanced form of TQM in which various constant improvement systems must be put in place with a small quantity of statistical analyses added in for good measure.

# Six Sigma

Evans (2005) says that it was Motorola that introduce the concept of Six Sigma as an approach to measuring product and service quality. Six Sigma is a statically based business process improvement methodology that aims to reduce defects as well as eliminate causes of those defect and errors. This process also reduces cycle times and cost operations, improves productivity and has as a goal to better meet customer expectations. Six Sigma is based on a simple problem solving method called DMAIC- Define (Define the problem, the customers, their critical to quality (CTQ) issues, what will need to be done, by whom and when.), Measure (Understanding the causal relationship between process performance and customer value.), Analyze (Focus on why defects, errors or excessive variation occur.), Improve (Generate ideas for removing or resolving the problem, evaluated them and select the most promising.) and Control (Focus on how to maintain the improvements.). Moreover, Evans (2005) states that one of the first things that a Six Sigma quality analyst learns is these five steps. Six Sigma focused also on improving Procter's four basic metrics, quality, productivity, cost and profitability. The quality of the products and services that lead to customer satisfaction, productivity and the cost of operations, and all contribute to profitability.

# **PDCA**

The quality topic has been defined by several authors, but one of those who have had the best effect on development of the quality subject was Edwards Deming. He was really influenced by Shewhart statistical view of the manufacturing process and later on introduce a fourth step with accentuate on the communication between customer and manufacturer. Deming believed that his fourth step will, "Give the user a better product, better suited to his needs and cheaper." Axelsson, (2000).



Figure 1: A model that suggest how Six Sigma through the DMAIC process can provide a bridge for improvement of existing business processes that will help to realize the performance goals of improved quality, productivity, cost and profitability





Figure 2: Improving existing business processes

Furthermore, Deming brought knowledge on how the companies should study and reduce variation by using statistical methods and control diagrams. For a continuous- improvement project, Deming have developed the PDCA cycle, a problem-solving cycle. This improvement cycle is the basis for TQM.





## Figure 3: Improving existing business processes

# **Customer Relationship**

Kotler (2002), states that today's international companies are facing strong competition and because of this they must learn how to build customer relationships, and not only products. A strong and mutual relationship with the company's customers creates quality, which can be hard for a competitor to copy. The company should spend as much money as it can to be sure that customer value and quality is obtained. A satisfied customer comes back over and over again, and can thereby be a highly valuable asset for the company in question. This is especially important nowadays when there are many different choices a customer can choose from when selecting a company to work with. Customers base their choices according to how they experience quality and service. A customer who is satisfied remains a customer for a longer time, buys more, is less sensitive for prices and can gladly recommend the company to others.

#### Brand

Cars are from time to time purchased high- involvement products for most of us buyers. There are a several qualities of new cars that are determinate after purchase and not before. Some of them are maintenance costs, durability and resale value. Due to this the purchase of a new car is risky. A higher involvement leads to a better influence of risk on brand choice. If the buyer chose a previously brand can make up a risk-reduction strategy (Buschenko, 2007)

According to Kotler (1994) a brand can be defined as, "A name, term, sign, symbol, or de-sign, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from competitors."

To be much clearer about the concept of brands, Keller (2008) has featured some criteria for choosing brand elements. These elements consist of: memorable, meaningfulness, likability, transferability, adaptability and protect ability. Another important issue mentioned by



Keller (2008) about brands, is options and tactics for brand elements. To be clear and preferable for customers a brand should contain: name, URL, (uniform resource locators), logos and symbols, characters, slogans, jingles and packaging.

According to us, a brand is of the most valuable assets for every company. It is also the driving force behind their business. Today, there are many different brands in the European car industry.

According to Buschenko (2007), Germany is one of the most famous car producers who operate 35 different car brands on the car market. Even though, these car brands cannot participate in all segments. Some brands, such as Land Rover and Cadillac, target small segments of the German car market. All these car makers offer different models and designs for the customers, both in the European auto market and worldwide. (See appendix for a list of car brands)

We believe that good brands are those that at once come to a customer's mind when he/she has a problem that needs to be solved, or a need that needs to be fulfilled. To see good brand image is easy today, especially in the automotive industry in Europe. Ford is a good one. According to Textart (2008), the slogans for the brands are for example as following. When it comes to Ford, many customers think the following slogan "Feel the difference". On the other hand, Volvo is a symbol of "safety" and their slogan is "For life", also everyone knows that Corvette is a symbol of high-speed fun.

Keller (2001) has emphasized that the elements of the marketing mix (product, price, place and promotion) take place in brand equity for the companies. Building brands with positive and strong equity establishes all sorts of benefits to a firm (e.g. customer loyalty, higher margins, more powerful communication effectiveness, and brand extension opportunities).

Kotler (2002) also mentions this by saying that the brand is telling something to the customer about the product. Those who always buy the same brand know what to expect from the product when it comes to for example quality. Customers, who are satisfied with their chosen brand, will probably buy the same brand next time they need a new product whether a utility or a car.

# **Customers' Preferences**

A general knowledge is that consumers have different preferences. They are different because they depend of age, gender, cultural differences, emotive attributes, family structure, social class and income, lifestyle, race and ethnicity etc.

According to Colvin (1980), the automobile market is a complex but interesting area when it comes to marketing and finding out customers' preferences. In this market, it is difficult



to identify the needs of the many different types of countries and customers. When developing a marketing strategy, the company can specify countries as segments. But, even this way, the segmentation is a demanding task because of resource issues and time demanding research programs. To make it easier, Ford, for example, implemented pattern standardization, which means that the strategy is designed to fit the local conditions with only small need of product changes. This is an effective way to minimize costs and the required time resources. Ford wanted to achieve awareness of their products and deliver the components and product attributes that fulfill the specific market' needs. Even if this research is from 1980, we believe that this is a general type of research and is made the same way today.

German cars have taken an increasing share of the new car market in the Europe and worldwide in the past two decades. Their market share increased from approximately 11 percent in 2007 (Deutsche Bank 2008).

It is believed that this is one indicator that signifies that consumer preferences for cars in the German automobile industry are increased. These car manufacturer companies provide different alternatives and possibility for their customers, like satisfaction, utility, gratification, enjoyment, satisfaction and happiness. The success of German cars is attributed to quality, good design, interior, permanency, loyalty, workmanship, service and low operating cost. (Buschenko, 2007)

#### **Background and Motivation of the Study**

Because of many earlier studies in marketing and different parts of customer quality importance, we felt that it would be interesting to investigate the company Finnveden and learn more about how quality can be a driving force and an extremely important issue when it comes to Finnvedens customer relationships. We wanted to see how these issues could be implemented and used in practice.

The study focuses on improvement activities at Finnveden Metal Structures in Olofström, where also all the search work is concentrated on. Finnveden is within the automobile industry and as in most businesses and industries the company is in hard competition. Due to this the industry become more and more intense, the products must be introduced to the market at high speed, faster and with a better quality than the competitors.

We have chosen Finnveden as a company because we felt that they were a reliable source and an interesting firm to work with. Their office is near our hometown and we would have liked to get the opportunity to ask them questions and show us around the plant.



# **RESEARCH METHODOLOGY**

The methods for this study are both theoretical and empirical. Both methods contributed to the strategy for study the product quality improvement. We have also use literature and sources found on the internet about how quality, in theory, is implemented the most successful way.

The method we are using to answer our problem question is qualitative. We are collecting data by using case studies that were implemented earlier in the same type of investigations. We also collect theoretical facts that later on are going to be used for analyses. Our empirical findings will be compared with the theoretical facts. At the end, we are going to give recommendations for the company, Finnveden, and give suggestions for how to implement these recommendations.

# **Empirical Data**

We have tried to contact Finnveden to be able to interview the personal and to visit the factory. Unfortunately, because of lack of time from the company' side, we were not able to collect primary data from them like we would have wanted. Do to this we had to use secondary data, like case studies, in the paper' empirical part.

Our secondary data have we collected from literature, the Internet and different articles. In the search for scientific articles, we used the databases at Växjö University (renamed in 2010 Linnaeus University).

# Quality

According to Groth and Kinney (1994) by improving the quality and reducing declines in the production process, the company can reduce risk and change the level of expected benefits. These also lead to decrease the variance in manufacturing cost that might as well reduce the level in warranty claims and returns. The result will be in an increase units sold or revenues per unit. A part from the quality, the focus on cost might generate other increments. For example a reduction in the level of variable costs results in less capital invested in raw materials, work-inprocess, finished goods, etc. Other increment is that a value adding production as well as organizational activities makes the cost rise, but the company may have greater control of activities that should result in better quality of the process and the product. Also, this should result in lower costs in terms of cost per good unit produces.

According to Flint (2003), there are some important issues that people working in the automobile industry cannot avoid thinking about when it comes to quality development. One of these rules is that quality really matters. The German auto industry seems to have this rule in mind when it comes to customers and the quality of the products. Even if the customer cannot



see the parts that are included in the car, they do know the difference between a good and a bad engine, for example. Another rule is that high technological components, brand management and robots in the manufacturing industry are not always the best solutions just because everybody else is involved in these types of activities. It can lead to disaster if other issues, for example customer focus ends up in the background. When it comes to quality, people, not robots, are the solution. A final rule is that if a company cannot manage its home market effectively and with a great focus, the need for globalization is useless. The home market is the most important market to protect.

## Product Quality in Finnveden

Quality for Finnveden is the most important goal and the main driver that they do. The staff in Finnveden work continuously to improve and increase the quality of the products and services. One significant issue is, that all Finnveden production units are quality certified in accordance with ISO/TS 16949, which includes specific automotive industry demands on quality management systems. (www.finnveden.com.2008)

According to Finnveden (2008) Finnveden Metal Structures Quality is to fulfill customer demands, for zero defects products and services to deliver at the right time. The develop quality policy is guiding the work in all aspects. The company perform the strategically Deming PDCA cycle for continuous improvements. Quality work and product in Finnveden is based on fundamental values: Trust building as a value is characterize by openness, honesty, simplicity and cooperation. With these values the company operate systematically, have different methods for supervision, measurement and evaluation.

Development as a work value is differentiated with curiosity and innovation. Finnveden in this case want to develop their knowledge of quality issues and systematically improve their process and product. Operations include the courage and perseverance. Finnveden with these criteria explain that the main issue is to pursue the quality back through the supply chain. They are continuously challenge their method of work and, as well as they are continually try to improve products and processes. (www.finnveden.com. 2008)

According to Garvin (1987) product quality is generally considered as being the ability of a firm to provide products that satisfy the customer and the market. Product quality is often separated into eight dimensions, including performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality.

To better understand the product quality we will focus on the whole car. Each car is compound from a lot of parts. These parts should be of good quality for the customer. All customers request to buy products with high quality, especially on the car market. According to



Lin L and Lu I (2006), a standard automobile contains more than 30,000 parts. Of them, 70% is manufactured by suppliers other than the original equipment manufacturer. The automaker quality management always request from the supplier to increase final product quality.

## Six Sigma- DMAIC Problem-Solving Methodology

According to J Antony et al. (2005), today's companies that have implement Six Sigma problemsolving method (DMAIC) has experienced several advantages that they didn't expect. The goal for all processes is not to just perform the quality level; the Six Sigma also reduces the number of defects in the manufacturing process and in that way improves customer satisfaction and business profitability of the company. The problem-solving methodology (DMAIC) is suggested when the company cannot establish the cause of the problem.

In a case study within the automobile industry performed by J Antony et al. (2005), the Six Sigma methodology (DMAIC) was utilized step by step. J Antony et al. (2005) explains how the DMAIC process is being used to solve a problem in the automobile company. The Define phase aims to define the scope and goals of the improvement project in terms of customer requirements and to develop a process that delivers these requirements. The company starts by developing a project so that the team members easily understand the scope and boundaries of the project, the objectives, the duration, resources, roles of team members, etc. The team members ask many questions during the project, for example, what is wrong in the production? Where is the problem? How big is the problem? The team ensured that these questions are investigated before the measure phase.

Antony et al., (2005) said that in the measure phase the team has to select one or more product characteristics, the team identifies the key internal processes that influence critical to quality characteristics and measures the defects currently generated relative to those processes. It is important to make the necessary measurements due to that this phase helps to identify the value and non value added steps. Having cleared the process, the team proceeded to analyse the potential causes of the defects. The team collects data from the process in order to obtain a better image of the values. After the analyze phase, the team confirm the key variables and quantifies their effects on the critical quality characteristics. On the improvement phase, some statistical tools are used, for example, fishbone diagrams, box plot, etc. Finally the aim is to sustaining the optimized results. This requires standardization and training program for the personnel. As J Antony et al. (2005) said, the real improvement will only come from the shop floor. In the case study, J Antony et al. (2005) has came to the conclusion that the DMAIC method not only achieve optimal conditions, but it also leads to cost-benefits such as labour cost, raw material cost etc.



# **PDCA**

The Six Sigma steps applied to each part of the PDCA cycle and are presented in detail in the article from Lupan et al., (2005). The authors conclude that applying Six Sigma philosophy to the quality standard implementation process is the best way to achieve the optimal results in quality progress and therefore in customer satisfaction.

Lupan R et al. (2005) said that the process approach, continuous quality improvement, and customer focus is already known and are the key new specific demands required by ISO 9000:2000. These demands correspond perfectly to the philosophy of another very well-known quality focus method: the Six Sigma method. This new idea means changes, and changes mean management involvement, people motivation, and training.

#### **Customer Relationship and Preferences**

According to Schmalensee (2007), it is important to work closely with the client and thereby create a win and win situation for both parties. This interaction makes it possible to maintain the quality within the different sectors of the company. Due to close relations with the customers, it will be possible to satisfy their needs for a lower cost and to manufacture the desirable product more precisely. These issues make it possible to create a high quality, seen from both the company' and the customer' eyes. This statement is about quality and close relationships, is also supported by Jacobs (2007), who says that this kind of relations between buyer and seller not only influences quality, but also cost and performance.

According to Colvin (1980), the automobile market is a complex but interesting area when it comes to marketing and finding out customers' preferences. In this market, it is difficult to identify the needs of the many different types of countries and customers. When developing a marketing strategy, the company can specify countries as segments. But, even this way, the segmentation is a demanding task because of resource issues and time demanding research programs. To make it easier, Ford, for example, implemented pattern standardization, which means that the strategy is designed to fit the local conditions with only small need of product changes. This is an effective way to minimize costs and the required time resources. Ford wanted to achieve awareness of their products and deliver the components and product attributes that can fulfill the specific market' needs.

Colvin (1980) also mentions that customer preferences are difficult to collect and analyze. For a global company, the data collection must be performed in all of the target countries so customer preferences and interests can be measured on these different types of markets. The task to collect the data is both time and resource demanding. But, the results from



these kinds of customer researches can be very helpful because they make it possible to develop more effective strategies.

# Brand

All companies desire to enhance brand equity. According to Herman et al. (2007) there are two presented parameters when it comes to brand equity. These are Importance and Efficiency matrix. The importance refers to the relative significance of a marketing activity in strengthening the brand and the efficiency matrix indicates whether and if so, to what extent the company can enhance a marketing activity's performance in view of consumers. Companies for the upper parameters (importance and efficiency) should try to maintain and increase the resource for those activities that possess high importance and high efficiency.

According to Verhoef et al., (2007) there are three different brands of tires. The first one is prestige brands like BMW, Mercedes and Lexus. The characteristics of these brands are that their prices are high and that these categories of brands cannot have big market shares. The second brand is volume brand; in these groups we can find Ford and Volkswagen. These brands serve the majority of the market and have large market shares. The reason for this is not their exclusivity and majority, but the value for money. The third group includes the economy brands. In this group we have Kia, Suzuki and Hyundai. These brands are on the below price but the reasons why the consumers are interesting in them is their tiers of price.

# ANALYSIS AND FINDINGS

# **Quality Analysis**

Product quality as perceived by customer is a vital success factor today for Finnveden. This is certainly the case in the whole auto market industry. The imperative commitment to increase and improve quality is of high rank on the priority list at Finnveden quality management.

As we have mentioned earlier, in our theoretical and empirical part, quality is in correlation with the cost at Finnveden. The prices are competitive by continuous efforts to optimize the cost structure of the company. Quality concept in the automobile industry is built in a way that consists of quality control, quality planning and quality preferences. These concepts are also the main point of quality management in the car industry. Finnveden is oriented to fulfill the needs of the customers, by trying to deliver high quality products with zero defects.

The competitiveness in the car industry today is very large and all the manufacturer companies compete with each other with different components. But one of the most significant competitive powers is product quality. Suppliers try to protect their products with certificate of quality. In our case, Finnveden is one of these companies, who protect and ensure their



products and customers with certified of quality (see in the upper part). This is one attestation that shows that Finnveden is working whole the time to improve, increase, develop and control product quality. These elements testify that Finnveden is an important strategic supplier for some of the most famous auto maker companies such as Ford, Volvo, Daimler Chrysler, Land Rover, etc. If Finnveden as a supplier would like to have customers like the companies mentioned before, it has to be able to produce the product with fixed parameters for quality and after that to expect the benefits from their customer.

Quality dimension is an important determinant of success in most areas of car producers. With high quality the car manufacturer will be enhancing profitability, strengthening growth, increase market share and remain competitive in their respective market. On the other hand, product quality can help the customer to increase the confidence for the product and to make an easier decision when buying a new car.

"Finnveden has handled some major changes over the past few years, and it is with great confidence that I now hand over control to the respective business areas for their continuing growth and development," says Johan Lundsgård on Finnvedens webpage, 2008.

#### Six Sigma- DMAIC & PDCA

The Six sigma methodology was discussed in the theoretical part. We pointed out why this approach is important to have in mind and how the method can lead to a several advantages for the company in different aspects. As we also states in the theoretical part, all the companies have potential for improvements, and so does Finnveden Metal Structures. To retain a competitive position in the automobile industry needs the organization to improve internally the processes. Since the automobile market has become so hard the past years, Finnveden has to deal with a world of declining product prices and compete with the best companies in the world. If companies just implemented improvements in areas of technology, competence and processes, is not enough to increase the market share and to be safe in the automobile industry. The need for continuous improvement as Six Sigma- DMAIC and PDCA, as has been spoken of for so long, to become more effective, efficient and cheaper, is suddenly on top of the management plan. Even if the quality and the manufacturing and service processes are optimal of Finnveden, each automobile company as well as Finnveden needs to improve on all areas, i.e. business processes as supplier selection, Inputs, outputs (see figure 1) and fast with visible results, both internally and for the customers' satisfaction. According to the theory, Finnveden can improve the business performance, i.e. quality, productivity, cost and profitability by implemented DMAIC method. It is possible if Finnveden after using Six Sigma for some time finds it natural that a supplier, partner or customer does not work structurally with continually



improvements. It is state in part 4.2 that Six Sigma methodology was implemented in the automobile industry and the company achieve optimal conditions and cost benefits.

Another Six Sigma method for improve quality is the Deming's development that we have explain in upper part. The PDCA-cycle and the communication between customer and manufacturer lead to a better TQM at Finnveden, and further to higher customers' satisfaction. As we pointed in upper section the focus on Six Sigma requires management involvement, people motivation and training. We considered that depending on the personal and material resources of the company, the Six Sigma method can apply an all processes at the same time, or implement it on each process at a time, but so long the processes on the product or services are structured.

# **Customer Relationship and Preferences**

According to many authors, the relationship with the company' customers is one of the most important issues when it comes to managing a long turn co-operation. The customer should be seen as one of the most important assets for the company. What the customer needs and wants, should be the main issue for the company to consider and try to satisfy. Colvin (1980), mentions that this task is not so easy to manage. To find out what the different types of customers need and want is difficult to investigate because of for example time and financial issues. This task can be really hard to manage, especially in the car industry. Different countries have different needs and it is impossible to standardize all the production. A near and long turn relationship can be a very helpful way to manage the customers' needs in a most satisfying way.

Kotler (2002), states that a close co-operation with the customer can even be a competitive advantage, because of the quality that this kind of relationship can create. A close relationship can also be hard for the competitors to copy. Finnveden is well aware of this. They are taking good care of all of their customers, and because of long term co-operations, it is easier to manage these connections. They already know what Ford wants when it comes to the products that they buy. In turn, Ford knows what to expect from Finnveden when it comes to for example product quality. Both parties are saving time and money due to this mutual knowledge. Even if a competitor can offer a lower price then Finnveden, the knowledge and the experiences that Ford has with Finnveden, should be hard to copy.

If Ford found another supplier, it would take a lot of time to get to know this new supplier and the risks for mistakes would be much higher. Because of this, a lower price can in the end become a higher price for Ford.



# Brand

Everybody knows that a good brand is a high value for the company. Kotler (2002), states that a good brand is telling several things for the customer. For example, a well known brand creates quality and security in peoples' eyes. It becomes easier to trust a well known brand. According to Keller (2001), a good brand even creates loyal customers who even talk well about the firm. Verhoef et al. (2007) mention that when it comes to the car industry, vehicles can be sorted in into three different brands of tires. Ford can be seen as a volume brand and has thereby a large market share of the whole car industry.

Ford is seen as a relatively cheap but safe and reliable brand. Most people can afford this type of a car and Ford is thereby often seen as a well-liked and well purchased car brand. Even if Ford has some more expensive and luxuries types of cars (like the new American Ford Mustang), most of the brand is of typical, family car type. Ford is dependent of Finnveden to be able to keep its brand image. If Finnveden' products are of bad quality, Ford suffers and Finnveden can lose one of its larger customers. Especially in the car industry, safety is an extremely important issue and mistakes can have devastating outcomes. To make sure that the Ford brand does not become something bad in the eye of the customers, Finnveden' products to Ford must keep a high quality. In this way, these two companies are dependent of each other and must trust each other in every way.

#### CONCLUSIONS

Our conclusions about Finnveden regarding the company's quality management when it comes to customer relationships, is that it is extremely important for Finnveden to pay close attention to its customers in every kind of way. It is important to continue concentrating on putting the customer in the centre and to be alert for all kinds of customer demands. Finnveden knows that the customer' wishes is an important part of their survival, and is today very focused on taking good care of Ford and all the other customers. When it comes to the automobile industry, the market is today very intense. Both manufacturers and suppliers have many different customers to choose from. Losing a big, important client can lead to devastating effects on the company future. Because of many competitors, it is risky for Finnveden to lose focus on how important the relationship with the customer is. By keeping a high quality when it comes to the products is also an important part of this co-operation. Finnveden must keep this in mind throughout the entire product line. Both parties must be satisfied with each other, otherwise the relationship will not continue.

Finnveden is today very aware of this and the whole company is involved in this strategy. This must continue even in the future. To be able to always deliver a high quality



product and be alert for all the changes on the market and in Ford 'demand is an extremely important issue. The entire company must be involved and nourish this existing relationship with this customer.

When it comes to brands, our conclusion is that a brand image only can be maintained if the quality throughout the whole industrial process is taking into account. If quality breaks, the brand suffers. Especially in the car manufacturing area, mistakes are not permissible. The brand has to keep its good name and reputation. Mistakes in Finnveden' productions lines leads thereby to that the customer suffers and loses its reputation. Quality, once again, becomes the most important issue, both to Finnveden and to its customer, Ford.

From the analysis part the product quality and quality management shows that product quality in the automobile industry is a very important, key issue. Due to the product quality a lot of companies today are operating successfully in the car manufacturer industry. Despite more intense competition, Finnveden as a company has had a spectacular success with its products both in the European auto market and worldwide. Finnveden' success is related to improving, increasing, developing, controlling product quality and improving customer satisfaction. This is one reason that indicates how important product quality is nowadays in the auto market industry.

To compete in the auto industry companies should always follow customer's demands when it comes to the market and product innovation. If the companies offer products with high criteria such as product quality, this is a strong reason that determines what the car makers will be able to expect from customer profitability and loyalty.

After studding the different theories for quality performed, we can resume that Six Sigma has been usually made know in recent years as a dominant methodology to solve qualityrelated problems and to achieve customer satisfaction. We considered the Six Sigma methodology as a strategic approach to improve business profitability. It is well known that the huge success and notable business performances of big companies like Motorola, Allied Signal, General Electric, Black and Decker are due to the implementation of the Six Sigma methods.

Every company, from manufacturing industry to service, administrative, sales and marketing has the possibility to implemented theories as PDCA and DMAIC to gain market share, benefits in cost, faster production and better competitive position with the competitors. Applying Six Sigma philosophy to the quality standard implementation process is the best way to achieve the optimal results in quality progress and therefore in customer satisfaction in best possible manner.



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