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**EP Serwis**  
**Value Creation and**  
**Strategic Supply Chain Management**

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## TABLE OF CONTENTS

|            |   |           |
|------------|---|-----------|
| <b>1</b>   | <b>Executive summary</b> .....                            | <b>6</b>  |
| <b>2</b>   | <b>Introduction</b> .....                                 | <b>7</b>  |
| <b>2.1</b> | <b>Presentation of EP Serwis Sp. z o.o</b> .....          | <b>8</b>  |
| 2.1.1      | Company profile .....                                     | 8         |
| 2.1.2      | Value for the society .....                               | 8         |
| 2.1.3      | Market Position and financials.....                       | 9         |
| <b>2.2</b> | <b>Problem formulation</b> .....                          | <b>9</b>  |
| 2.2.1      | Value as a problem area .....                             | 10        |
| 2.2.2      | Polish pallets market as a project destination field..... | 11        |
| 2.2.2.1    | Pallet market.....  | 11        |
| 2.2.2.2    | Poland .....  | 12        |
| 2.2.3      | Problem statement.....                                    | 12        |
| 2.2.4      | Understanding of the Problem Statement .....              | 13        |
| 2.2.5      | Words Explanation.....                                    | 13        |
| <b>2.3</b> | <b>Limitations of the research</b> .....                  | <b>14</b> |
| <b>2.4</b> | <b>Project design</b> .....                               | <b>16</b> |
| 2.4.1      | Explanation of the project design.....                    | 17        |
| <b>3</b>   | <b>Research methodology</b> .....                         | <b>19</b> |
| 3.1.1      | Problem determines the methodology.....                   | 19        |
| <b>3.2</b> | <b>Methodological approaches</b> .....                    | <b>20</b> |
| 3.2.1      | Analytical approach .....                                 | 20        |
| 3.2.2      | Systems approach.....                                     | 21        |
| 3.2.3      | Actor's approach .....                                    | 21        |
| <b>3.3</b> | <b>Concept of methodological approaches</b> .....         | <b>22</b> |
| <b>3.4</b> | <b>Explanation of the chosen methodology</b> .....        | <b>23</b> |
| <b>3.5</b> | <b>Bloom's taxonomy</b> .....                             | <b>24</b> |
| <b>3.6</b> | <b>Data collection methods</b> .....                      | <b>25</b> |
| 3.6.1      | Qualitative research techniques.....                      | 26        |
| 3.6.2      | Quantitative research techniques.....                     | 27        |
| 3.6.3      | Criticism of data collection .....                        | 28        |
| <b>3.7</b> | <b>Sub-conclusion</b> .....                               | <b>29</b> |
| <b>4</b>   | <b>Theoretical framework</b> .....                        | <b>30</b> |
| <b>4.1</b> | <b>Choice of theoretical fields</b> .....                 | <b>30</b> |
| <b>4.2</b> | <b>Understanding of customer value</b> .....              | <b>33</b> |
| 4.2.1      | Value construct .....                                     | 33        |
| 4.2.1.1    | Customer Value model.....                                 | 34        |
| <b>4.3</b> | <b>Creating value through Supply Chain</b> .....          | <b>36</b> |

|            |  |           |
|------------|--|-----------|
| 4.3.1      | Supply Chain paradigm and cooperation .....                                  | 36        |
| 4.3.2      | Value Creation across the Supply Chain .....                                 | 38        |
| <b>4.4</b> | <b>Creating value in business relationships .....</b>                        | <b>39</b> |
| 4.4.1      | Level of value creation through supplier-customer relationship.....          | 43        |
| <b>4.5</b> | <b>Information: the way of increasing value across the Supply Chain.....</b> | <b>45</b> |
| 4.5.1      | RFID system and its application.....   | 46        |
| 4.5.1.1    | RFID in the value creation.....  | 47        |
| 4.5.2      | Software: ERP Systems.....   | 48        |
| 4.5.2.1    | ERP improves the value .....   | 48        |
| 4.5.3      | Internet.....  | 49        |
| 4.5.3.1    | Online procurement system.....   | 49        |
| 4.5.3.2    | Communication tools .....  | 50        |
| <b>4.6</b> | <b>Strategy management .....</b>   | <b>51</b> |
| 4.6.1      | External factors.....  | 52        |
| 4.6.1.1    | Porter's five forces.....  | 53        |
| 4.6.1.2    | Criticism of the model.....  | 54        |
| 4.6.2      | Internal environment.....  | 54        |
| 4.6.3      | Building the strategy .....  | 55        |
| 4.6.3.1    | Criticism of Blue Ocean Strategy .....                                       | 57        |
| <b>4.7</b> | <b>Sub-conclusion .....</b>  | <b>58</b> |
| <b>5</b>   | <b>Analysis of value creation process in EP Serwis Sp. z o.o .....</b>       | <b>60</b> |
| <b>5.1</b> | <b>Overview of the business .....</b>  | <b>60</b> |
| 5.1.1      | Package.....   | 60        |
| <b>5.2</b> | <b>Packaging market overview .....</b>                                       | <b>61</b> |
| 5.2.1      | Polish packaging market.....   | 61        |
| <b>5.3</b> | <b>Assesment of pallets customer value .....</b>                             | <b>62</b> |
| 5.3.1      | Pallet types.....  | 62        |
| 5.3.2      | Pallets customer value hierarchy model .....                                 | 65        |
| <b>5.4</b> | <b>Market players and relations in the Supply Chain .....</b>                | <b>69</b> |
| 5.4.1      | Market Supply Chain Relations.....   | 72        |
| <b>5.5</b> | <b>Analysis of value creation in EP Serwis's business relationships.....</b> | <b>75</b> |
| 5.5.1      | Analysis of EP Serwis's relationship benefits and value creation .....       | 75        |
| 5.5.1.1    | Examination of EP Serwis's products range and their quality.....             | 76        |
| 5.5.1.2    | Examination of EP Serwis's service support.....                              | 77        |
| 5.5.1.3    | Examination of EP Serwis's delivery performance .....                        | 78        |
| 5.5.1.4    | Examination of know- how and time- to- market as a relationship benefit..... | 78        |
| 5.5.1.5    | Examination of EP Serwis's personal interactions.....                        | 79        |
| 5.5.2      | Level of value creation through EP Serwis's relationships .....              | 79        |
| <b>5.6</b> | <b>Evaluation of the Information tools.....</b>                              | <b>81</b> |
| 5.6.1      | Information system.....  | 83        |
| 5.6.2      | RFID implemantation.....   | 83        |
| <b>5.7</b> | <b>Strategy management.....</b>  | <b>84</b> |
| 5.7.1      | External environment.....  | 85        |
| 5.7.1.1    | Porter's five forces.....  | 86        |
| 5.7.2      | Internal factors.....  | 88        |

|            |   |            |
|------------|---|------------|
| 5.7.2.1    | Resources.....                                      | 88         |
| 5.7.2.2    | Capabilities.....                                   | 89         |
| 5.7.3      | Strategy formulation .....                          | 89         |
| 5.7.3.1    | Vision & Mission .....                              | 90         |
| 5.7.3.2    | Red ocean vs.blue ocean strategy of EP Serwis ..... | 91         |
| <b>5.8</b> | <b>Sub-conclusion .....</b>                         | <b>92</b>  |
| <b>6</b>   | <b>Conclusions.....</b>                             | <b>94</b>  |
| <b>7</b>   | <b>Recommendations.....</b>                         | <b>97</b>  |
| <b>8</b>   | <b>Bibliography.....</b>                            | <b>100</b> |
| <b>9</b>   | <b>Appendix.....</b>                                | <b>105</b> |

## 1 Executive summary

This Master Thesis examines the question how EP Serwis can increase value from strategic supply chain management perspective. The research explores customer value within pallet market and evolves around value creation through supply chain, business relationships, information systems and strategy. The topic is quite specific, since on this market there are different drivers of success, where marketing and advertisement cannot be a main weapon against rivalry.

Using primary and secondary data we investigate the process of value creation for pallets' customers within polish market. We found that pallet market in Poland is extremely dynamic and diversified. The increasing number of competitors forces companies to perform more aggressively to gain market share. EP Serwis is obligated to act more effectively to maintain on the market. The way to survive and develop business is to increase value for the customers. The objective of the project was to analyse and evaluate opportunities, which can bring above average return. In other words, it was about looking for the right solution, which would benefit company and its customers in relatively short time.

Firstly, it was about understanding of value concept, which can be very subjective issue for different recipients. Reviewing literature we found that value cannot be perceived only as trade off between benefits, that is what customer get, and the sacrifices, which refers to what customer give, but also in wider perspective where customer value derived from empirical research into how customer think about the value.

The aim was to indicate market drivers and players, who directly or indirectly affect company's performance and added value created for customers. Thus, we found that companies with strong business relations can more successfully lead on the market. Moreover, both supplier and customer should be aware of benefits that they can create to each other and especially supplier should constantly improve areas where these benefits are not delivered effectively enough.

Consequently, we recommended to EP Serwis to expand beyond existing borders by introducing new offer called renting pallet system, which can significantly improve company's image and create new value for customers. Moreover, we found that EP Serwis should reconstruct company's supply chain and apply the newest IT solutions.

## 2 Introduction

This is the Master Thesis from MSc. International Business Economics, at Aalborg University. We are three students from the Master Programme who have made the thesis based on the pallet market in Poland. This thesis will help to understand the market, and its business relations.

This Master Thesis was written in cooperation with EP Serwis, polish well-known pallet company. The overall objective of the project was to acquire a better understanding of the value creation process for customers and analyzing how is it possible to achieve it on such specific market, especially when it is only about B2B relationships. It is obvious that the business can develop successfully only with full acceptance from the customers' perspective. Therefore, their satisfaction is the key element running the company's performance. Moreover, the aim of the Thesis is to assist EP Serwis in the creation of the new strategy, which will lead to achievement of the greater share.

Motivation for this project has been found during conference with EP Serwis management. It was cleared that the market is still growing with high potential to develop. Moreover, manager from EP Serwis asked for conducting a research on how they can increase value for its customers. Consequently, we were inspired to write Thesis about the topic and penetrate this field.

This project will combine different value theories in an effort to gain mutual understanding of value creation on the polish pallet market and provide managers with recommendations that will help to develop their business.

This chapter focuses on introducing the background for the Thesis and problem formulation. Firstly, we will introduce the case company and its performance, which will be used for the application of the theories in this project. The next section provides a destination field and consequently a problem formulation. Subsequently, the section elaborates on the understandings of the problem formulation. This chapter concludes with defining our limitations and presenting the project design explanation. The project design figure is included to provide an overview of the project's flow.

## 2.1 Presentation of EP Serwis Sp. z o.o

### 2.1.1 Company profile

In this section, company's profile will be outlined. Key financial data and market position will be also presented.

The company was established in 1994 as Energomontaż Północ Serwis sp. z.o.o. Nevertheless, in June 2005, the company was bought by private equity and changed its name to **EP Serwis sp. z.o.o.** The headquarters is situated in Kozenice, approximately 100 kilometers south from Warsaw. Since 2005 EP Serwis has been harshly developing thanks to the successful expansion strategy and effective management team. Although the company has recently notified gratifying financial data and gained customers' loyalty, managers decided to build long-term strategy where their offer will significantly increase **the value** among their customers. Therefore, we were asked to analyse factors influencing company's performance as well as other elements, which are important while value creation process, i.e. SCM, business relations, information systems etc.

Currently, EP Serwis specializes within several areas concerning pallet and wooden elements turnover. Among those businesses, three can be indicated as the main ones, namely **repair/mend, pallet production** and **sales** of new and used pallets. Moreover, EP Serwis develops its performance within pallet exchange, pallet rental service, logistics and recycling. It is significant to verify if those categories can influence the value growth for both the company and the customers.

### 2.1.2 Value for the society

Ep Serwis focuses most of their actions on the customers' requirements, trying to fulfilling them better than competitors. Its customers can count on company's reliability, transparency of actions and positive approach.

Meeting customer requirements EP Serwis takes also environmental concern into account in the strategy formulation. The aim is to comply with environmental guidelines set by both European and Polish authorities. Ep Serwis fully respects those rules by:

- Cooperation with suppliers who implemented environmental management systems
- Timber purchase only from legal sources e.g. state-owned forests
- Recycling of used or broken pallets



Ep Serwis is the company with modern point of view. The company believes that employees are the most important asset. Therefore, even physical workers can directly share their doubts and opinions with top management. Consequently, CEOs can quickly react for any problems occurring on each level of the company structure.

The company cooperates with the Post-Secondary Schools by offering their students holiday internship and employment which is a good way to educate potential employees. Moreover, following European standards, EP Serwis has a program for handicapped people, which gives them a chance for professional development. Currently, the company employs 54 persons with various handicaps, which accomplishes for more less 54% of all staff.

### 2.1.3 Market Position and financials

Ep Serwis is a quite strong competitor on the Polish packaging market. Its position is highly related with wide range of products and services. The company is doing very well in the pallet **repair service** with annual capability reaching 750 000 pallets. Moreover, in last few years EP Serwis has significantly improved its results within on the reselling market with monthly sales of nearly 200 000 pallets.

The company started to grow in 2005 year, after the private takeover had place. Profit growth is quite high with dynamic 138% in 2005 and 132% in 2006 and it still tends to grow.

Table 1 Key financial figures

|                            | 2004           | 2005         | 2006           |
|----------------------------|----------------|--------------|----------------|
| <b>Net Profit (in PLN)</b> | 301 948,50     | 417 192,81   | 554 168,34     |
| <b>Equity (in PLN)</b>     | 1 266 193,54   | 1 548 386,35 | 2 091 466,45   |
| <b>Profit dynamic</b>      | <b>2004/05</b> |              | <b>2005/06</b> |
|                            | 138%           |              | 132%           |

Source: EP Serwis financial data – annual report

The company invests most of their profits into the development, still looking for new solutions to satisfy the customers and become a market leader within all businesses.

## 2.2 Problem formulation

This section will include the discussion explaining the selection of the project’s topic. First, the problem area, which will contain background for the chosen topic and research area, will be presented. Next, the certain choice will be explained. Previous discussion will lead to the

problem statement. The problem formulation will derive from this section and the way of understanding it will be presented as the final part of this section.

### 2.2.1 Value as a problem area

In recent years, an increasing speed of competition has caused that many companies are struggling to improve their business performances. In mid-1950s many practitioners and marketing researchers focused on the marketing mix as a way to achieve competitive advantage. The 4Ps of marketing- Product, Place, Price, Promotion was perceived as a perfect tool that could help to satisfy customers' needs and maximize company's performance simultaneously. In the 1980s this tool was switched with Michael Porter's competitive forces. The decade of the 1990s brought relationship marketing, which saw sales and marketing respond to the buyer's demand for more cooperative relationships<sup>1</sup>. As companies entered into the twenty-first century, new tool was needed. It seems that "solutions" became the buzzword in the academic literature and business practice and "**value**" replaced services and products in suppliers' offerings.

Nowadays, **customer value** is placed on the top of marketing academics' research agendas and at the core of the business marketers' strategies. **Customers** are perceived as a key source of competitive advantage. Besides of revenue enhancement, suppliers can gain products ideas, technologies, access to information or market access from their customers<sup>2</sup>. Therefore, customers and value delivered for them have become the centre of companies' strategies. There are many companies, which announced that they are customer focused and that their mission is to provide quality products and services in order to generate the outstanding shareholder and customer value<sup>3</sup>. But some researchers, by analysing what companies actually do in the marketplace, proved that actually most of these companies are not even close to being customer focused. That is why it is of great importance for a company to **understand what is customer value and how to recognize it**.

Understanding and recognizing the value are very important in company's operations but these compose only a part of company's success. In order to achieve competitive advantage, effective **value creation and its delivery in the most efficient way** are essential. Companies have to develop tools and abilities that will facilitate the process of increasing customer value.

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<sup>1</sup> De Bonis, J. N., Balinski, E., Allen, P., "Value-Based Marketing for Bottom-Line Success. 5 Steps to Creating Customer Value", (2003), p.1

<sup>2</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.366

<sup>3</sup> Ulaga, W., „Customer Value in Business Markets. An Addenda for Inquiry", (2001), p.315

Value can be created by products, services and through supply chain. Furthermore, literature and business practices are putting also more attention to the importance of value creation in customer-supplier relationships. That is why, it is essential for the company to combine all possible perspectives on that subject and apply the broader approach in its operations.

## 2.2.2 Polish pallets market as a project destination field

### 2.2.2.1 Pallet market

Nowadays, it is difficult to imagine world's existence without packaging. There are thousands different packages around. They are made from different materials and having different shapes and destinations. Package is dedicated to protect, distribute and storage of goods from raw materials to final products. It is **an integral part of the goods supply chain**. As well as packaging secures products from damage, it also allows efficient distribution, informs and helps to promote goods in the market place.<sup>4</sup> Thanks to them fulfilling everyday and business responsibilities is now more convenient.

The reason why we chose to conduct a research into this particular market is **high development potential**. The packaging industry continues to rise as the life standard and consumption increase. It is assumed by experts that projected market growth constitutes for 3,5%<sup>5</sup>. Now, global packaging industry is worth approximately 424 billion USD<sup>6</sup>. The majority of the world packaging consumption stands for Europe and North America.

Obviously the packaging market is characterised by high product differentiation, from small boxes to big containers. Therefore, it is better to focus on the one particular package market, where deeper research can be conducted. For further analysis the pallet market was selected as the one that **attracts attention of majority of supply chains regardless their business area**. Its history started in 1887 when the first package lift was developed. Since that time pallets have been evolving. Nowadays, pallets are made from wood (most popular), plastic, metal, paper, and other materials. The pallet's concept is a flat transport platform on which products are placed and moved to their destination. Pallets help to increase business efficiency and minimize products' lost and time required to reloading the freight. We can be

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<sup>4</sup> INCPEN - The Industry Council for Packaging and Environment

<sup>5</sup> [www.packaging-gateway.com](http://www.packaging-gateway.com), visited at 08.08.2008

<sup>6</sup> Ibid

confident that the pallet industry is going to grow, especially when there is not any better alternative.

### 2.2.2.2 Poland

For the research area we chose to **investigate the Polish pallet market**. Poland is one of the fastest growing markets in EU. With 38,1 millions habitants, Poland is one of the most interesting markets among new EU members.

The most common kind of the pallet is EUR pallet which production started in 2001. Firstly, there were only 6 producers but in 2008 their number accomplished 68. In 2007 the pallet production reached 12,3 millions that constitute 20,51% of total EUR pallet production. Almost half of them are exported to European countries especially to Germany and Denmark.<sup>7</sup>

Big number of the companies increases competition on the Polish pallet market. The situation became worse at the turn of the 2007 and 2008, when Polish currency (PLN) strongly consolidated. It has negatively influenced the Polish pallet market. Export has decreased gradually. Therefore, Western companies started to export cheaper pallets compared to the polish pallet market. Consequently, the Polish producers have to find **a new direction to increase value** and keep their customers' loyalty.

### 2.2.3 Problem statement

The discussions conducted above lead to the problem statement for this project, which is:

*How EP Serwis can increase value for its customers from strategic supply chain management perspective?*

We formulated the problem statement in a manner so that it will not be too complex. Therefore, there is only a single problem. We chose to apply “how”- problem statement, which is normative problem formulation that tries to solve the problem. We would like to

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<sup>7</sup> [www.epal.org.pl](http://www.epal.org.pl) EPAL's official website, visited at 08.08.2008

understand and situate the problem and suggest how a EP Serwis should act in relation to the problem.

#### 2.2.4 Understanding of the Problem Statement

This section will evolve more on the problem statement. The key words will be explained according to the meaning in which they will be used through the project. Thanks this, it will be possible to clarify the group's specific area of research and the meaning implied in important words.

#### 2.2.5 Words Explanation

- **Increase** - means for us make or become greater or larger. By phrase "*how EP Serwis can increase the value*" we understand the process thanks which a company can enhance value of its products. We mean researching not only product attributes but also activities that can affect the value creation. In order to achieve that, we chose to research customer value and suggest variables and models, which can facilitate value enhancement.
  
- **Value** - the concept of value, because of its richness and complexity, can have several different meanings. We understand that the perception of value reflects the personal value of individual customer. Therefore, we assumed that value is something perceived by customers, rather than something objectively determined by suppliers. These perceptions usually involves a trade-off between the consumer's expectations regarding products and services or company name and reputation, to what she or he gives up to acquire and use a product. We perceive customer value at multiple, increasingly abstract levels of assessment criteria, such as, product attributes, usage consequences and customer goals<sup>8</sup>. Moreover, we will elaborate around value, which can be created through business relationships, supply chain or IT systems.
  
- **Customers** - when we talk about customers we take into consideration business-to-business environment in which operates EP Serwis. Therefore, by customers we understand *manufacturers*, companies which are producers of products that have to be transported on the pallets, *resellers of the pallets*, companies that buy pallets in order to

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<sup>8</sup> Parasuraman, A., "*Reflections on Gaining Competitive Advantage Through Customer Value*", (1997), p.154

speculate on the market and *companies that purchase EP Serwis's service* such as repair or recycling. In other words, customers for EP Serwis, can be characterised as other companies, that are members of the value chain, who can directly or indirectly purchase or influence the purchase of products and services generated by company in question.

- **Strategic supply chain management** - means for us the *effective management of business relationships, supply chain, information systems and strategy*. Customer value creation should be achieved not only by products and service improvements but also by improvements and better management of all activities through which products and services are created and then distributed to customers. There are many companies that try to integrate and coordinate their supply chains in order to enhance their performance, but nowadays companies have to do more than that. In this project we believe that strategic supply chain management can be appropriate to deliver superior total value to customers.

### 2.3 Limitations of the research

In this section limitations of the research will be presented. This part of the project will provide the explanation of certain choices made by the group.

First of all, we are limited by the choice of the certain area of research and company on which we want to base our analysis. The project **analysis is limited to the packaging market, focusing on pallets**, because it attracts attention of majority of supply chains regardless their business area. We selected to analyse customer value within pallets market, because there is only a few works within this field. Furthermore, it is very interesting topic, since it can seem that pallets are quite simple products, but in fact, other products cannot be effectively sold without them. It is also interesting to analyse through which activities company can increase value to its customers, when it comes to such specific product as pallet.

We **selected to use EP Serwis case**, due to our interest to explore value creation in business-to-business environment. We chose Ep Serwis, because it has been operating on the pallet market since 1994, so it already has some experience within the field of dealing with the product and operation on this specific market. EP Serwis is perceived as a good source of information and a perfect object to conduct the analysis within the area of value creation.

Secondly, because of the complexity and richness of the chosen topic, limitations regarding the choice of theories should be addressed. The concept of value is used very often in fields such as economics, management, marketing, finance, information systems, social science, ethics and justice, etc. In this project we will try to incorporate the concept of value derived from management and marketing literature. This literature on value provide us with three categories of value, namely, shareholder value, which is well developed in financial literature, stakeholder value, which is promoted by stakeholder theorists and **customer value** provided by marketers. Due to the fact that we would like to cooperate with the company existing on market while writing our project, we find it relevant and interesting to set the limitation to focus exclusively on customer value theories and models. Another reason for this limitation is our understanding of value. We perceive value as a subjective and ambiguous concept and we believe that customer vale based models have this in mind.

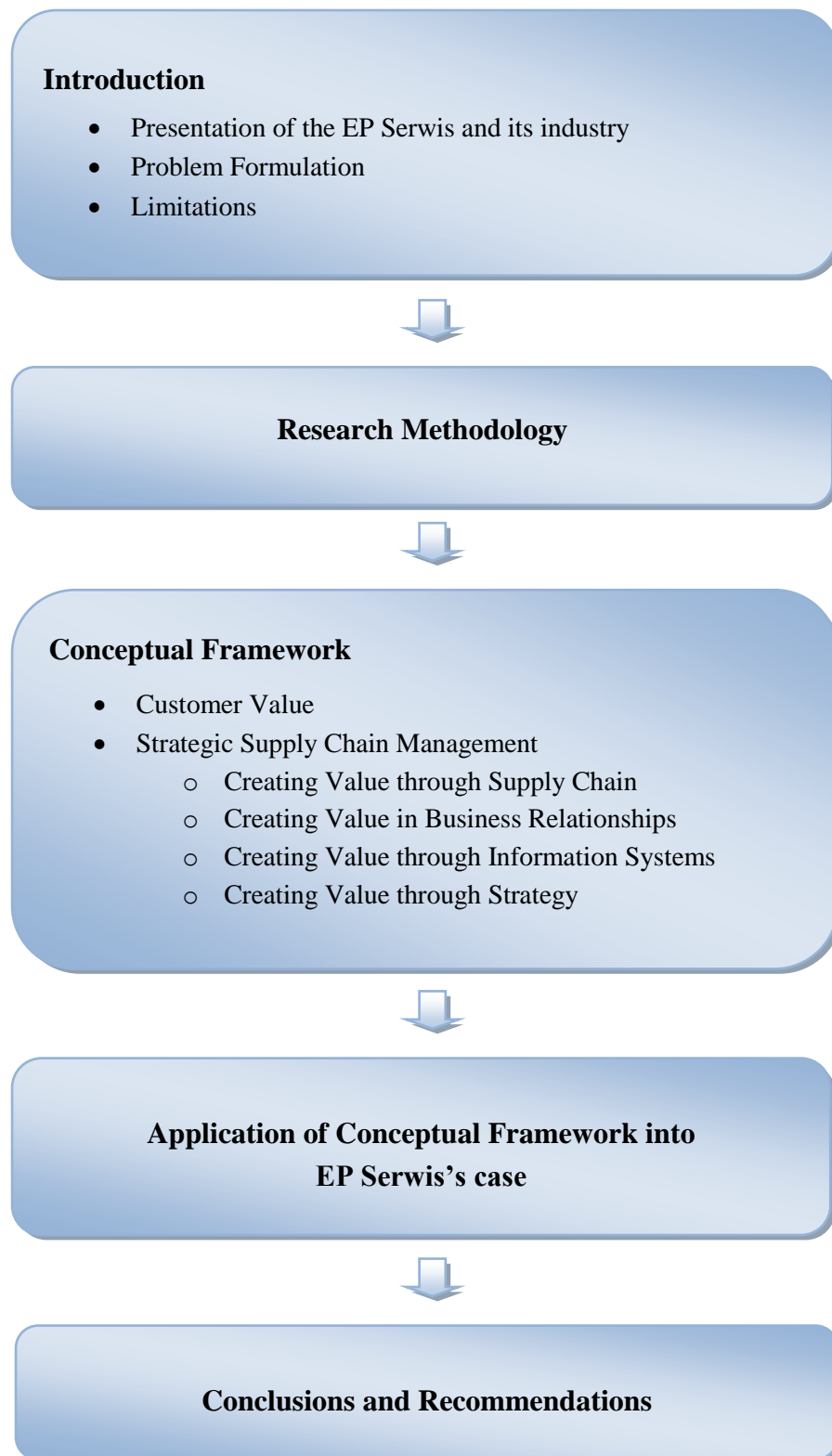
In order to gain broader view on customer value creation process, we decided to apply **the strategic supply chain management**. We could also raise financial aspect of value creation process, which could give us clear measurements of value. But previously taken limitations excluded this choice. It is believed that strategic supply chain management perspective can enrich the project of new aspect of value creation.

Additional limitations regarding structure of the project should be addressed. On one hand, we excluded **abductive and inductive approaches of structuring the project** because we would like to analyse theories in order to discover our understanding and then apply it into EP Service examination. On the other hand, the choice of **structuring the project by using the deductive approach** limits the data collection and the creation of new knowledge. We are bounded, because data and explanations are controlled by selected theories<sup>9</sup>. The underlying theories of customer value and strategic supply chain management will be used as a guideline to the project's structure and data collection. Furthermore, chosen theories will also point at subjects of research and investigation, what can make us blind to the other also important angles of problems, which may occur in the reality. Additionally, the research within this project is bounded by the information provided by EP Serwis, which can affect the full understanding of the issues and activities taken by the company. That is why, it is understood that the **project is limited by the lack of comprehensive information provided by the primary and secondary data**.

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<sup>9</sup> Svane, M., "Business research methods", lecture at 26.09.2006 about data analysis – deduction

## 2.4 Project design





### 2.4.1 Explanation of the project design

In this section a presentation and an explanation of the project's structure will be depicted. The project's structure is determined by the deductive way of the project analysis. That is why the theoretical part is presented at the beginning of the project in first 3 chapters. Afterward there is an analytical part, which contains also 3 chapters. This project is divided into 6 chapters, which enable to achieve the logic and sequential structure. Thanks to that the reader will be able to follow the progress of discussion conducted in this project.

**The Introduction chapter** includes all necessary subsections, which enable **pre-understanding of the topic of the project**. It contains short presentation of EP Serwis's profile and industry, within which it operates. Additionally, problem area, which contains background for the chosen topic and research area, is presented. **The scope of the problem** evolves around the customer value and the activities through which EP Serwis can create and increase its value. As a result, the scope of the problem leads to the problem formulation. **The problem formulation** is followed by **project's limitations**. Limitations provides explanation of the choice of certain theories and the exclusion of non relevant theories. It is also understood that the project is limited by the lack of comprehensive information provided by the primary and secondary data. Data collection is simultaneously determined and also bounded by the deductive approach of the project research, in which theories specify the issues that should be examined.

Afterwards, there is **the Research Methodology chapter**, which contains the presentation and discussion about relevant methodological approaches that should be applied in the project. This part of the project includes an explanation, why it has been chosen to use certain way of perceiving the reality and collecting data. At the same time, the context in which the project will be elaborated is presented.

The following section, which is called **the Theoretical Framework**, contains the results of our understanding of the project's topic and provides "tool box" which will be used to solve the problem formulation. The conceptual framework contains the theories and models evolving around the topic of the customer value and strategic supply chain management. The manner of presenting relevant theories will be in a coherence with the selected structure of the project and consistent with the scope of the problem.

Afterwards, there is the **Analytical chapter**, where the conceptual framework is applied into EP Serwis's case subsequently and analysis of its value creation is conducted. This chapter contains the discussion and specific consideration regarding EP Serwis's. Our understanding of value creation in empirical perspective will derive from this section.

The analysis of EP Serwis's value creation is followed by **the Conclusion chapter** and **the Recommendations chapter**. **The conclusion** section presents the discussion about group's findings in relation to problem formulation and chosen company. This will enable to answer the problem statement. Afterwards, **recommendations** present new deliberation and further reflections regarding value creation by EP Serwis.

### 3 Research methodology

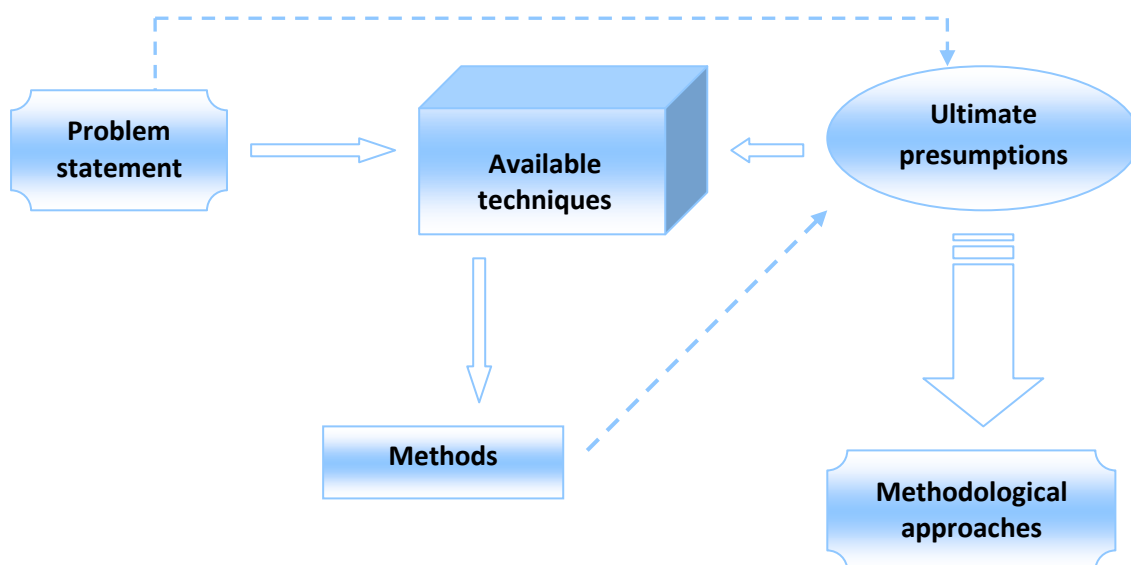
This section introduces methodological approaches operating in business reality. Then the appropriate approaches are chosen to be used in the further discussion concerning the identified problem research area. Moreover, this part provides reader with data collection methods, which were necessary for further analysis to be completed.

#### 3.1.1 Problem determines the methodology

Before the exact work on the project is started, it is significant to choose the right methodology. Since the literature presents different attitudes and tools, it is becoming difficult to decide, especially when methodology is a rather young topic in the business reality.<sup>10</sup> Nevertheless, methodology facilitates the process of knowledge creation and helps to understand business mechanisms.

The choice of the methods and consequently the methodological approach is determined by the problem formulation. Moreover, in the beginning of the working process each researcher has his/her own beliefs called “ultimate presumptions” about the reality, which are hard to change. In fact, even though the researcher is not aware, it has a great impact on the selection of the methodology.<sup>11</sup> The process and factors influencing the choice of the right methodology are presented on the figure 1.

Figure 1 The process of the methodology selection



Source: Arbnor, I. & Bjerke, B., “Methodology for Creating Business Knowledge”, p. 9

<sup>10</sup> Arbnor, I. & Bjerke, B., “Methodology for Creating Business Knowledge”, p. 5

<sup>11</sup> Arbnor, I. & Bjerke, B., “Methodology for Creating Business Knowledge”, p. 7

## 3.2 Methodological approaches

Methodological approaches provide specific assumptions about how to explain the business world in which company operates, the conception of knowledge and the way which should be followed to understand, explain and improve the existing business. Results of every study are impacted by a methodological approach. It can be defined as “an approach for creating knowledge; based on a set of ultimate presumptions, using methods within a field of activity or a subject area”<sup>12</sup>. Three main methodological approaches have been developed and used in the business studies:

- the analytical approach,
- the systems approach,
- the actor’s approach.

The choice of a specific methodology and the research design is significant for the project foundation. It helps to make the research reach deeper, organise the project and keep its coherence. Using the particular methodology in connection with the applied theories leads to the right answer and solutions of the problems cleared out in the problem formulation.

### 3.2.1 Analytical approach

The analytical approach is the oldest one and has its genesis in philosophy. It is assumed that the **world is objective** and has a **summative character**. It means that the whole is equal to the sum of the components, where parts are explained by specific and objective judgments. Therefore, knowledge about the whole is created through the explanation of its parts. From the analytical approach, the business performs the most effectively when it is created from the best elements which finally generate the best total.<sup>13</sup> The main characteristic of this approach is **the cause → effect relation**, meaning that there are relations between two factors with a chronological order. The more causes are found, the better and more complete view is constrained. According to the analytical approach, **knowledge is independent of the researcher and free from subjective experiences**, is gained from logical thinking and structures. In the analytical approach is also important that the model structure from the former research can be very useful in the present situation since the **knowledge is universal**.

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<sup>12</sup> Arbner, I. & Bjerke, B., “*Methodology for Creating Business Knowledge*”, SAGE, (1997), p. 50-51

<sup>13</sup> Ibid, p.50-53

### 3.2.2 Systems approach

According to the systems approach, the **world is objective** or objectively accessible. It is assumed that **reality is a system**, constituted by components and relationships among them. It is important to mention, that in this approach the **whole is not the sum of its parts** as internal relations exist in the system.<sup>14</sup> The way the parts are put together also provides important information as the interaction between the individual components may cause **synergy effect**. This synergistic effect creates the total picture of the system and can be either negative or positive. If the synergy is negative the relations among the components will be less than the sum of the parts and if the synergy is positive the relations among the components will be more than the sum of the parts. Furthermore, it is not possible to remove any of the components from the system without risking that the total picture will be affected.<sup>15</sup> Such connections are called finality relations<sup>16</sup> between purposeful forces and their results. The better explanation of finality relations is; the better understanding of the particular whole is created. The behaviour of individuals follows the system's principles. **Knowledge in the systems approach is unique and qualitative** as it is generated about the unique system model.

### 3.2.3 Actor's approach

According to the actors approach the **world is subjective**; it is a **social construction**. The actor approach presents the world through the actors' eyes. There are many worlds, because every individual has its own different world as it was generated from his own experience and interpretations of reality. The interpretation of the characteristics of its parts leads to the understanding of the world. Knowledge is seen as generated in social constructions, subjective meaning structures and dialectical.<sup>17</sup> **Knowledge about the whole is created through the understanding of the actors** and their finite provinces of meanings.<sup>18</sup> Through results depend on the actors, but they also may include certain general contribution that may be useful in future studies. The whole is perceived by the characteristics of its parts. The actor's approach is more focus on understanding than on explanations.

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<sup>14</sup> Svane, M., "Actor RM and Three Research Designs", lecture at 09.11.2006, AAU

<sup>15</sup> Arbner, I. & Bjerke, B., "Methodology for Creating Business Knowledge", p. 65

<sup>16</sup> Ibid, p. 109-150

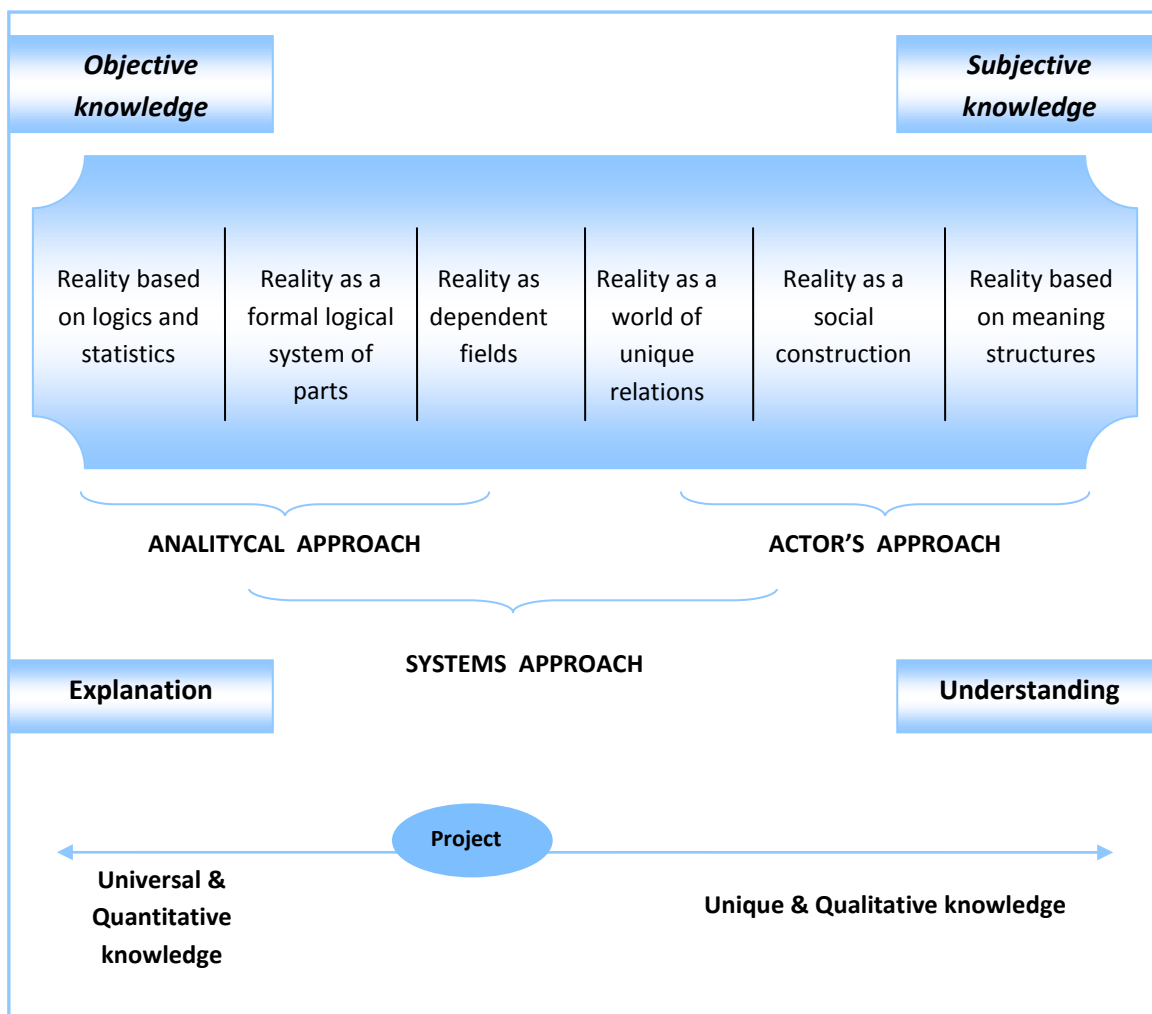
<sup>17</sup> Ibid, p. 70-79

<sup>18</sup> Svane, M., "Actor RM and Three Research Designs", lecture at 09.11.2006, AAU

### 3.3 Concept of methodological approaches

It is never possible to indicate the best approach, which is then applied into the business world. Nevertheless, the choice of the particular approach should be relevant to the situation and our own opinion.<sup>19</sup> Dependently on the chosen approach, the subjects are perceived differently. Therefore, when researchers employ the separate approaches they should act differently to explain, understand and/or develop the business.<sup>20</sup> The figure below presents the differences between three methodological approaches.

Figure 2 Three methodological approaches



Source: Own creation based on Arbnor, I. & Bjerke, B., "Methodology for Creating Business Knowledge", p. 44-46

<sup>19</sup> Arbnor, I. & Bjerke, B., "Methodology for Creating Business Knowledge", p. 5

<sup>20</sup> Ibid, p. 2

Firstly, it has to be recognized that each approach has a different view on the reality. Consequently, as it is shown on the top of the figure, there is a division between objectivism on the left side and subjectivism on the right. Furthermore, there is also a distinction between ways of presenting the reality. Thus, the figure shows that the analytical approach is highly influenced by an objective reality, where the world and facts should be clearly and logically explained. This approach searches for structures and laws that answer to the stated problem. This explanation does not take the subjects into account. According to the systems approach, the objectivity of the reality is not so straight but it can be said that the approach looks for the objective reality to be reachable. The analytical and systems approach estimate that an objective reality exists, and that this reality is independent of the researcher. Regarding the actors approach it is characterized by a subjective reality and is built on understanding knowledge.

### 3.4 Explanation of the chosen methodology

Each methodological approach has its own paradigm, its own conceptions of reality and provides the researcher with different prerequisites, attitudes towards knowledge generation and explaining and understanding of the world<sup>21</sup>. Therefore, the operative paradigm has to suit to the methodological approach. In order to provide a good analysis of the problem, it was essential for us to find the methodological approach that best suit the project work and emphasises the answer to the problem formulation. Each of the three methodological approaches can be actually applied to the subject. Nevertheless, it is significant to follow the approach that is relevant for writing the project.

We chose to apply the **system approach**, where the world is made of systems. The reasons for this decision are that the supply chain and its environment are understood as a sub-system and a super-system respectively. Moreover, the **customer perceived value** consists of core value and added value components rooted in the relation. Furthermore, knowledge is generated about the unique system so knowledge is system dependent. Because a system approach was chosen, the research criterion is to **view the reality as objective and neutral** as possible. It is important that the data can be reproduced and it is trustworthy and valid. It is difficult to perceive the business world only in the one way, especially when different tools are used to explain and understand the reality. Consequently, our project would be mainly

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<sup>21</sup> Ibid, p. 49-79

based on the systems approach, but it might be influenced by the **analytical approach** in the section in which it is perceived as appropriate, for a broader understanding of the topic. One example of this wide perspective in understanding comes from the fact that **some logical structures** are created on the basis of the questionnaire conducted among company's customers. Therefore, we placed the project at hand somewhere in between of the model, where the knowledge is universal with some impact of uniqueness and qualitative opinions and facts.

### 3.5 Bloom's taxonomy

In this section, the reader will be provided with the project's level of ambition. We found it relevant to use Bloom's taxonomy. However the theory of the psychological domains was found in 1950's, it is still widely used in many studies. Therefore we decided to apply it into this project. Benjamin Bloom, an American educational psychologist, distinguished three types of learning **cognitive, affective** and **psychomotor**.<sup>22</sup> First domain, cognitive, concerns development of intellectual skills. Then affective domain involves feelings, attitudes and emotional areas. The last one, psychomotor, relates to physical abilities. Since, the level of ambition is strongly correlated with the creation of knowledge, the cognitive domain will be employed in the project. The cognitive domain consists of 6 steps, where previous one has to be completed before the next one can be done. The last step is the most difficult to achieve but also it is the most complex and significant, when solving the problem. The table below shows all the steps and presents the researcher's objectives on the each level of the hierarchy.

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<sup>22</sup> Bloom, B. S., "*Taxonomy of Educational Objectives: The Cognitive Domain*", David McKay Co Inc., (1956)



Table 2 Cognitive domain. 6 steps.

| Levels                     | Comprehension   | Objectives                  |
|----------------------------|---|-----------------------------|
| <i>Knowledge</i>           | Recall or describe information, data and subjects                         | To know, define, tell       |
| <i>Understanding</i>       | Explain in our own words, state a problem                                 | To discuss, explain, report |
| <i>Application</i>         | Employ a structure or a model in the situation at hand                    | To apply, use, examine      |
| <i>Analysis</i>            | Study facts and data in logical way, seek for interactions and trends     | To analyse, test, design    |
| <i>Synthesis</i>           | Build a pattern or framework, put all information in a way create a whole | To collect, formulate       |
| <i>Critical evaluation</i> | Be able to assess materials, methods and theories and their usefulness    | To compare, value, select   |

Source: Isaacs, G. "Bloom's taxonomy of educational objectives", The University of Queensland, Australia, (1996), pp. 2-3

### 3.6 Data collection methods

In this project we chose to work deductively with data collection and the material because the aim of the project is to analyse the value creation process. The theoretical framework in the deductive approach controls and legitimises the data collection and the analysis<sup>23</sup>. Therefore, the conceptual framework will first be explained and then the empirical data about EP Serwis will be analysed. Afterwards, the theories will be investigated in relation to the collected empirical material. Some of the consequences of this research method are that the explanations and the solutions are provided within the framework of these theories and the theoretical framework is reproduced in the analysis and the conclusion.<sup>24</sup>

In order to understand the business world in which EP Serwis operates and to explain and analyse the value creation process collection of necessary data is required. Researcher can choose between two types of information: **primary and secondary data**. The researcher should commence "to explore secondary data resources before embarking upon primary data

<sup>23</sup> Svane, M., "Business research methods", lecture at 26.09.2006 – deduction, AAU

<sup>24</sup> Svane, M., "Business research methods", lecture at 26.09.2006 – deduction, AAU

collection”<sup>25</sup>. As secondary data is characterised by cheap and quick access it can supply with useful information about the research field. When requirements for greater data are known, the process of primary data collection can be started. Usefulness and quality of data mostly depend on data collection methods.

**Secondary data** is information that has been formerly collected for other reason than the present research project.<sup>26</sup> Secondary data can be divided into internal (those which are available within the company, for instance annual report, financial statistics etc.) and external (outside the company available from published or electronic sources, for instance articles, Internet etc.). In turn, primary data refers to knowledge that is developed or gained by the researcher purposely for the current project.<sup>27</sup> Research techniques, when gathering primary data, can be distinguished between qualitative and quantitative methods.

### 3.6.1 Qualitative research techniques

Qualitative research provides researcher with the general knowledge of the particular market, the product/service, and the customer. They give an overview of elements and factors which are important in the business. Therefore, the empirical part of the project usually starts with qualitative methods followed by quantitative ones. Moreover, qualitative methods are used to gathered respondents’ opinions and feelings. The most common techniques are **in-depth interview** where face-to-face interview and telephone interview can be indicated, and **focus group**.<sup>28</sup> For the project at hand we chose to conduct an in-depth interview. Since it comes to the company’s problem area and B2B field, a focus group is difficult to organise. During qualitative research, the researcher is deeply involved in the process. There is an interaction between subjects (see figure 3). The researcher can be more flexible and ask additional questions.

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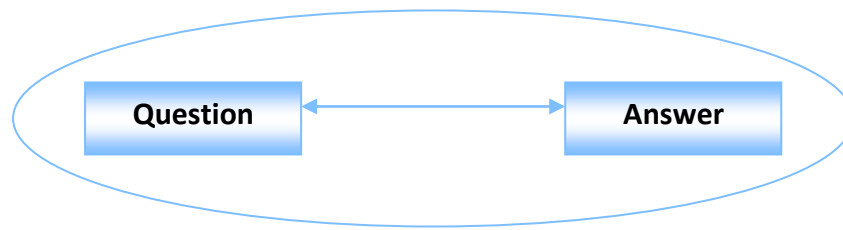
<sup>25</sup> Kuada, J. “*Market Analysis – Theories and Methods*” (2006), p.84

<sup>26</sup> Wilson, A., „*Marketing Research – an integrated approach*”, Pearson Education Ltd., 2<sup>nd</sup> edition, (2005), p.36

<sup>27</sup> Burns, A.C.; Bush, R.F., “*Marketing Research*”, Prentice Hall, Inc., 2<sup>nd</sup> edition, (2005), p.139

<sup>28</sup> Arens, F. W., Weigold, M. F. & Arens Ch., “*Contemporary Advertising*”, McGraw-Hill/Irwin, 11<sup>th</sup> edition, (2008), p. 219-220

Figure 3 Interactions in qualitative research techniques



Source: Harboe, T., “*Indføring I samfundsvidenskabelig metode*”, 3<sup>rd</sup> edition, Samfundslitteratur, (2001), p.134

We decided to conduct an **interview with the representative of EP Serwis** in order to gain a broader perspective on the company’s performance and gain the knowledge, which has not been published. The benefits of the interview are that the strategic recommendations can be adjusted more accurately to the real situation. Interview gives more in-depth insight into the specificity of EP Serwis’s strategic supply chain management, the value creation process and factors which are significant for the customers. The conducted interview was a non-structured interview with open questions. The interview was based on the loosely structured guide, which pointed out the main issues. Interview started with general questions about the company and the market in which it operates. These were followed by more purposive questions. This kind of interview provides the primary information source a great deal of validity and rich depth of information<sup>29</sup>.

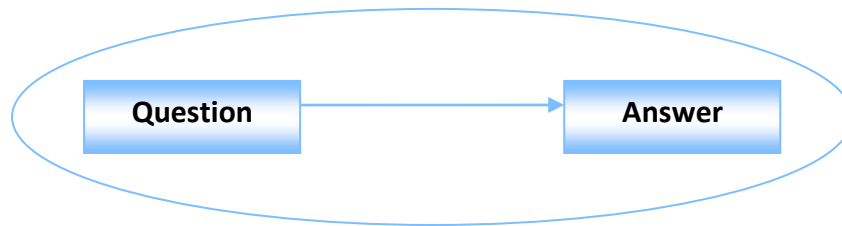
### 3.6.2 Quantitative research techniques

The next step after qualitative research process is finished is collection of data through quantitative methods. Quantitative research techniques are used to gain reliable, hard statistics about particular problem area.<sup>30</sup> The common tools in quantitative research are **survey**, questionnaire, observation and experiment which result in data that can be statistically calculated. Quantitative tools search for general rules about the topic and provide researcher with data needed for creation of the concrete model. The researcher is not highly involved in the research as there are no strong interactions between actors (see figure 4). Questions are not based on the previous answers and should be exactly the same for each respondent. Consequently, the interviewer is only responsible for reading the scripts and/or forms as there is no place for loosely asked questions.

<sup>29</sup> Arbner, I. & Bjerke, B., “*Methodology for Creating Business Knowledge*”, p. 233

<sup>30</sup> Arens, F. W., Weigold, M. F. & Arens Ch., “*Contemporary Advertising*”, McGraw-Hill/Irwin, 11<sup>th</sup> edition, (2008), p. 221

Figure 4 Interactions in quantitative research techniques



Source: Harboe, T., “Indføring I samfundsvidenskabelig metode”, 3<sup>rd</sup> edition, Samfundslitteratur, (2001), p.134

For the current project, we prepared **questionnaire** to investigate costumers’ preferences and requirements. This kind of collecting data is a logically sequenced set of open and/or closed-end questions that are filled out by research participants. Questionnaire is the most efficient and effective research tool to gather the widest amount of information. There is no strong pressure for the respondent to answer as it can happen while in-depth interview. To save time it was chosen to conduct an e-mail based questionnaire for participants to fill in.

Moreover, in our analysis we will use findings from survey conducted by EP Serwis in the first quarter of 2008, which are perceived as secondary data, since we have to rely on data gathered by someone else.

### 3.6.3 Criticism of data collection

When working with a secondary data the researcher should be aware of the fact that information was collected and analyzed by other researchers. Consequently, as they act as editors of data that they originally gathered, they choose what information is published. They decide upon which information is accessible, and thus some useful data can be missed. The other critique is that secondary source can provide subjective point of view on the reality.

Secondly, the data gathered from EP Serwis has the limitation that it is provided by the company and therefore reflects only what the representatives are willing to share with the public. Here the contact person within the company acts as an entrance barrier to the neutral researcher. When conducting an interview the researcher should be aware of the fact that the interviewed person might change behaviour or give different answers than what is actually the real case. The impression that the researcher gets of the company may appear more as an interaction with the interviewed person instead of an objective investigation. We suspect that the representatives tend to speak in favour of the company, instead of revealing the true concerns.

According to primary data, information gathered directly for the project at hand can also contain some omissions. However the researcher is responsible for planning and controlling the process of data collection, there is always a risk of errors coming up. Moreover, at the process of planning the actual research methods, we have an own view on reality (methodological approach) which determines the tools of data collection. It is obvious that the researcher can only use a few of them as there is time limitation dedicated for the research.

According to the conducted on-line questionnaire, the success of recruitment of this method is quite low and there is a risk that some important data can be missed by using the particular technique. We sent a request for filling our survey to 83 potential respondents and finally we received 21 responses. Nevertheless, we found it as a great success since all gathered answers are valuable and can be used in our further analysis.

### **3.7 Sub-conclusion**

To conclude, the methodology used through the project, has been inspired by the Bloom's taxonomy. Under this scheme, the cognitive learning process has been chosen and applied. Therefore, through the project it will be significant for us to understand, analyse and build a useful framework for answering the problem formulation. The reality is mostly seen through systems approach, meaning that the world is objective. We decided to choose deductive way and even though we use the case company, the starting point for answering the problem formulation is theoretical. As the project deals with EP Serwis, part of the working process will be achieved through cooperation with managers from the company.

## 4 Theoretical framework

The objective of this section is to provide the theoretical foundation, which can be used by companies, that want to increase their customers value effectively. It elaborates on the theoretical discussion evolving around the topic of the customer value. It reveals issues, which are necessary to explore and understand in value creation process. First, the conceptual model, which will be used as a guide to conduct the analysis, will be presented. Afterwards, the concept of value will be discussed. This section continues by looking at different areas of company's operation, which can be source of value creation in business-to-business environment.

### 4.1 Choice of theoretical fields

This section will provide the discussion regarding theoretical fields that we found important to research when analysing value and value creation process. The discussion will lead to the development of the model, which will be treated as a guide for further analysis conducted in this project.

Due to the fact that the company, which will be the aim of the examination, operates in business-to-business environment, we found it necessary to analyse its **business-to-business relationships** and their impact on the customer value creation. We understand that the essential purpose for a customer company and supplier company engaging in a collaborative relationship is to work together in ways that add value in exchange between companies<sup>31</sup>. The business marketing and channel management literature indicate that efficient management of **supplier-customer relationships** can significantly enhance value creation. Therefore we decided to assess relationships established so far by the company by applying **Ulaga model of generic relationships benefit dimensions** and **model classifying value creation through supplier-customer relationships** in the project.

We think that, analysis of the customer value from supplier-customer relationships perspective is strongly related with the topics, such as, **supply chain management** and **information systems**. We find it important to analyse how the series of activities, through which products and services are created and then distributed to customers, can increase customer value. We think that it is also necessary to examine information systems and other

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<sup>31</sup> Cannon, J. P., Homburg, C., “*Buyer-Supplier Relationships and Customer Firm Costs*”, (2001), p.29

facilities that can improve the process of information flow and lead to the value creation. Additionally, we find it important that the company's supply chain is used as a **central element of strategy**, not simply as a means to move materials and products. Therefore, it should be designed in the way that will deliver superior total value to the customer not only in terms of speed and cost but also in terms of quality or flexibility<sup>32</sup>. **Supply chain model and IT solutions** have to be presented in order to estimate company's present situation and provide strategic recommendations. In our opinion, **a strategic orientation in supply management** is particularly important in a today's competitive global marketplace<sup>33</sup>. Therefore, the project will be also viewed through **supply chain and IT perspectives**.

This stipulates that the project will evolve only around the process of enhancement of customer value through strategic supply chain management and does not consider issues related, for instance, with **financing, forecasting, knowledge management or human resources** which can also determine company's value creation. Including these topics could enrich our project, but also could make it more complex and difficult to follow. We think that, **strategic supply chain management perspective** should be applied in this project, as it can lead to valuable analysis. Effective strategic supply chain management requires coordination across at least four elements: **supply chain, business relationships, information systems and strategy**, which is shown in the figure 5.

Therefore, the theoretical base for our project will elaborate around:

- customer value concept
  - o Woodruff's customer value model
- supply chain model
- business relationships
  - o combination of Ulaga model of generic relationships benefit dimensions and model classifying value creation through supplier- customer relationship
- IT solutions
  - o combination of RFID, EPR systems and Internet
- strategy perspective
  - o combination of Porter five forces model and Blue Ocean strategy

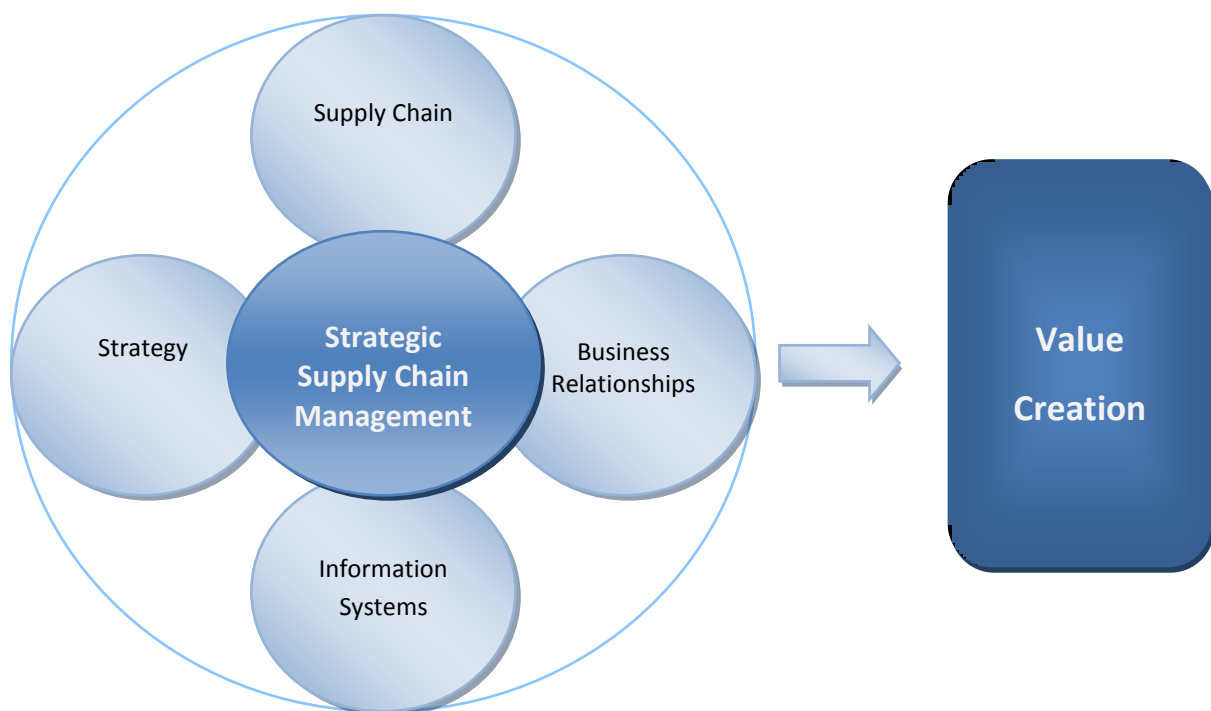
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<sup>32</sup> Ketchen, D. J., Rebarick, W., Hult, G. T. M., Meyer, D., "Best value supply chains: A key competitive weapon for the 21<sup>st</sup> century", (2008), p.235

<sup>33</sup> Yeung, A. C. L., "*Strategic supply management, quality initiatives, and organizational performance*", (2007), p.490

We believe that such combination of theories and models will provide a good tool box to assess company's present situation in each particular areas. Thanks to this we will be able to formulate managerial and strategic recommendations for the company. The reason why we did not choose theories such as Network theory, Resource based theory or Transaction cost theory is because we think that they are more descriptive and we could not use them to conduct proper analysis.

Figure 5 Conceptual model



Source: Own creation based on Ketchen, D. J., Rebarick, W., Hult, G. T. M., Meyer, D., "Best value supply chains: A key competitive weapon for the 21st century", (2008), p.236

Summing up, we found the strategic supply chain management as a particularly important orientation in nowadays competitive marketplace. In our opinion it is essential to examine activities through which products and services are created and then distributed to customers. Additionally, we assume that, company's B2B relationships should be analysed. Another important point is enhancement of the information flow. We consider information as a valuable factor in company's operation. Therefore, we found it necessary to analyse company's information systems and their impact on value creation process.



## 4.2 Understanding of customer value

In this section the concept of customer value will be presented. First, the concept of value will be discussed. Richness and complexity of that concept, cause that it is important to achieve a clear understanding of it. Later in this section the model capturing the essence of customer value will be presented. The model will be used to understand value and its creation, looking from customer perspective.

### 4.2.1 Value construct

In recent years, there has been growing interest in the **value construct** among managers and researchers. This interest is triggered by the belief that managing companies from value-based perspective will increase the likelihood of gaining competitive advantage and long-term success. The literature shows that superior value of products or service delivered to customers leads to customer loyalty, which is the real driver of financial performance. Therefore, there is a strong connection between loyalty, profits and value created for customers. Customers will be loyal to the company, if it offers them superior value compared to company's competitors<sup>34</sup>. That is why, a clear understanding of the concept of the customer value, which reflects its richness and complexity, is essential.

We understand that **customer value** can be perceived as a customer's overall assessment of the **price**, where the lowest price is the best value. On the other hand, customer value can be seen as **quality** adjusted to a product or service, where customers define value in terms of the benefits they receive, rather than the price they pay<sup>35</sup>. Finally, it can be perceived as a customer's overall assessment of the utility of a product or service based on perceptions of **what is received and what is given**. This is based on comparison of **quality** of a product or service and its **price**. Quality and price are **two components, which affect perceived value differently**. Some customers perceive value when the price is low and others when there is a balance between price and quality. On the other hand, there are also customers, to whom **company reputation or brand name** itself provide value. Company's name or reputation for friendliness of service or innovation is valued by many customers and satisfy customer's psychological needs that are more personal in nature. Psychological needs, like, need for

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<sup>34</sup> Khalifa, A. S., "Customer value: a review of recent literature and an integrative configuration", (2004), p.645- 646

<sup>35</sup> Buttle, F., "Customer Relationship Management. Concepts and tools", (2004), p.228

relationship, affiliation, recognition or respect become more important to customers<sup>36</sup>. We understand that the customer value reflects the personal value of individual customer<sup>37</sup>. Therefore, the components of perceived value may be differentially weighted for different customers<sup>38</sup>.

In today's rapidly changing marketplace with increasing competition, the perception of value often shifts. One day, valuable can be low price, but the other day fast delivery or different packaging configuration<sup>39</sup>. We revealed that viewing value just as a trade-off between only quality, price or brand seems to be too simple. There is a need to perceive this concept also from a broader perspective, because dimensions other than price, quality and brand can increase the usefulness of construct.

**The broader perspective, presented by Woodruff**, suggest that **customer value** is as a customer's perceived preference for and evaluation of those products attributes, attribute performance and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations<sup>40</sup>. This understanding of customer value incorporates both desired and received value and emphasizes that value stems from customers' learned perceptions, preferences and evaluations. Furthermore, this perspective links together products or service attributes with use situations and related consequences experienced by goal-oriented customer<sup>41</sup>. This perception can be used to construct the model that will capture the essence of customer value. The model will help us to understand how customers perceive value and how value can be created.

#### 4.2.1.1 Customer Value model

Taking the Woodruff's broader perspective of customer value it is possible to create the model that indicates how customers consider products in a hierarchical structure. It integrates both desired and received customer value. The customer value hierarchy is presented in figure 6.

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<sup>36</sup> Best, R. J., "*Market-Based Management, Strategies for Growing Customer Value and Profitability*", (2000), p.92-95

<sup>37</sup> Huber, F., Herrmann, A., Morgan, R. E., "*Gaining competitive advantage through customer value oriented management*", (2001), p.42

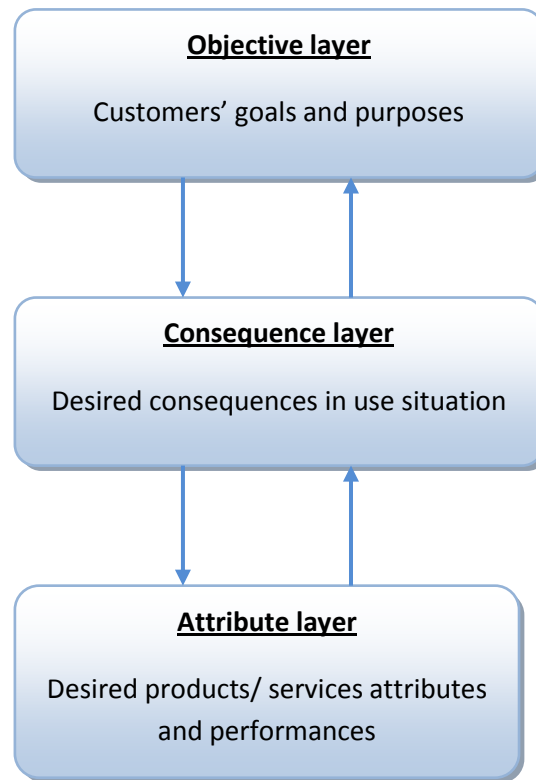
<sup>38</sup> Sweeney, J. C., Soutar, G. N., "*Consumer perceived value: The development of a multiple item scale*", (2001), p.204

<sup>39</sup> Manning, G. L., "*Selling Today; Creating Customer Value*", (2004), p.23

<sup>40</sup> Parasuraman, A., "*Reflections on Gaining Competitive Advantage Through Customer Value*", (1997), p.154

<sup>41</sup> Woodruff, R. B., "*Customer Value: The Next Source for Competitive Advantage*", (1997), p.142

Figure 6 Customer value model



Source: Yajing, S., Huaying, S., Jiayin, Q., “Customer value hierarchy based customer demand analysis in personalized service recommender system”, I.J. of Simulation Vol. 7 No 7., p.79

Moving from the bottom of the model, we can distinguish the **attribute layer**, **consequence layer** and **objective layer**. We understand that customers take under consideration attributes and availability of products or services firstly. When purchasing and using a product, customers begin to make expectations according to these attributes, reflected in value in use and possession value, in the next level. At the last layer, customers form expectations about the realisation of their aim<sup>42</sup>. Looking from the top of this model, we understand that customers use goals and purposes to attach importance to consequences and in the same way important consequences lead customers when attaching importance to attributes<sup>43</sup>.

Summing up, in this project customer value will be perceived not only as a trade off between benefits, that is what customer get, and the sacrifices, which refers to what customer give, but also in wider perspective provided by the Woodruff’s customer value model, where customer value derived from empirical research into how customer think about the value. Conceptual

<sup>42</sup> Yajing, S., Huaying, S., Jiayin, Q., “Customer value hierarchy based customer demand analysis in personalized service recommender system”, I.J. of Simulation Vol. 7 No 7., p.79

<sup>43</sup> Woodruff, R. B., „Customer Value: The Next Source for Competitive Advantage”, (1997), p.142

framework, presented in this section, captures the essence of customer value perceived from customer perspective. Thanks to this we can understand concept of value applied in the project.

### 4.3 Creating value through Supply Chain

This part introduces theoretical concept of Supply Chain and provides discussion of the value creation across the combined links from the origin to the end consumer. Then, the value drivers are identified, which will be helpful in conducting effective value creation process by the company.

#### 4.3.1 Supply Chain paradigm and cooperation

Global market, high competitiveness and customers' awareness of their power require from companies high mobilization and capacity to deliver and/or receive (from suppliers) the product to the defined place, at the right time and at the advantageous price. Therefore, companies try to create an effective supply chain, where each link adds a particular value to the process.

The history of the supply chain started when manufacturers began to understand the goal and value of cooperative relation with their partners. Therefore, in the end of the last century (1990s), many manufacturers and service providers hunted for collaboration with suppliers and up grade their purchasing and supply management function, from an individual performance to an integral part of a phenomenon known as a Supply Chain Management (SCM).<sup>44</sup>

The supply chain is a network of multiple businesses and relationships, which consists of different suppliers and distributors. The objective of SCM is to create possibly the highest **value for the whole supply chain** network from the point of origin to the end consumer.<sup>45</sup> The traditional supply chain is characterised by serially combined links; the raw material supplier, the manufacturer, the distributor, the retailer and the final customer. These different units are linked together in a down-stream flow of materials and an up-stream flow of information. Each link is responsible for its own inventory control and production or

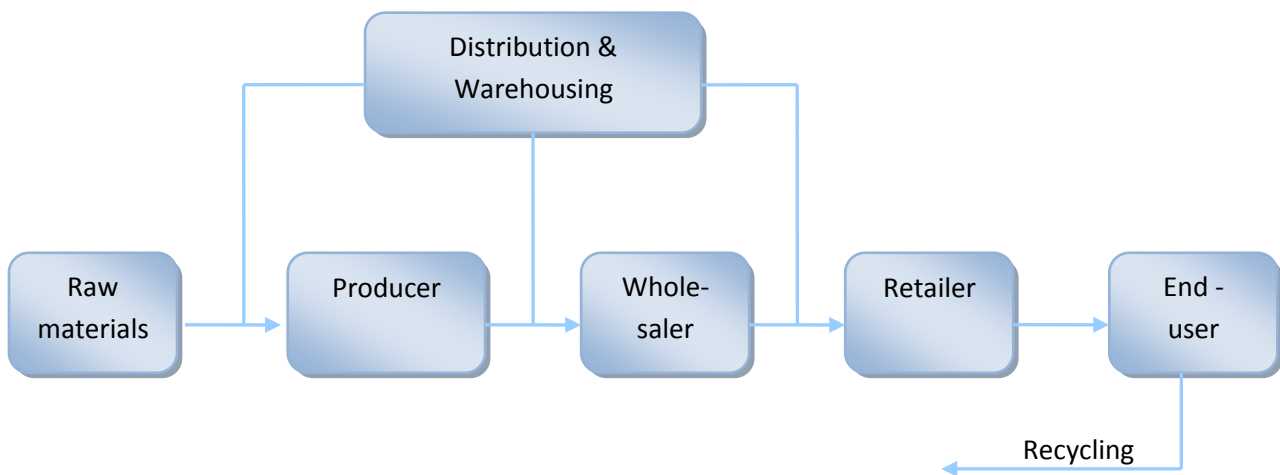
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<sup>44</sup> Tan, K.C., "A framework of supply chain management literature", European Journal of Purchasing and Supply Management 7/2001, p. 38

<sup>45</sup> Lampert, D. M. & Cooper, M. C., "Issues in Supply Chain Management", p. 81

distribution ordering activities.<sup>46</sup> In terms of product transformation the supply chain is a procedure that converts goods from raw materials down to inventory, goods in progress and eventually finished goods. SCM refers to the management that controls and coordinates the activities in the organisation from its suppliers to its customers. In other words, SCM is the concept of cooperation and integration of different companies' value chain. Participants should build a competitive advantage for the benefits of all. It is assumed that all units of the company and all echelons in the chain are subordinated to the goals of the system and the value creation. In the figure below, it is presented how companies can be situated in the chain.

Figure 7 Activities and firms in a Supply Chain.



Source: Own creation based on New and Payne (1995)

Of course, it is difficult to show one pattern for the supply chain creation, as it all depends on the business and specificity of the relation. Nevertheless, in the business relations it is usual that companies try to cooperate with the nearest links in the vertical chain. Especially when the firm operates on the specific market, where advanced technology or unique strategy is necessary to gain the advantage, it is extremely important to keep partners closely. In result, the company is able to employ all resources and focus on its competences to increase value for the customers.<sup>47</sup> It is worth to emphasize that in the business-to-business relationship long-term, strong and trustful cooperation between key echelons is more significant than in the

<sup>46</sup> Disney, S.M., Towill, D.R., "The effect of vendor managed inventory (VMI) dynamics on the Bullwhip Effect in the supply chains", p. 200

<sup>47</sup> Skjoett-Larsen, T., "Supply Chain Management: A new challenge for researchers and managers in logistics", Copenhagen Business School, Vol. 10 , No 2/1999, p. 48

business-to-consumer liaison. According to Dwyer and Tanner, it is rather characterized by shorter and more direct supply chains.<sup>48</sup> Moreover, the relation between associates is more personal and sensitive.<sup>49</sup> Therefore, companies should be careful in bounding for the effective network.

### 4.3.2 Value Creation across the Supply Chain

In most markets, as it was mentioned above, the supply chain consists of more than one intermediary. The end-user benefits are the most important only in the last echelons of the chain, nevertheless the value creation achieved through sales transaction is the sense on the each level.<sup>50</sup> In some way each level of the chain is a customer for the previous link, even if it is not the end-user. At the project at hand, for example, manufacturers are the main target group for the pallet producers but in fact it is difficult to say that they can be perceived as the end-users, since pallet are circulating over and over between links.

The most significant mechanism in the development of SCM is a customer focus company's vision, which results in changes across internal and external linkages. Customers achieve greater value when overall benefits for them derived from the product or service. It is called **perceived value** (CPV), which is a difference between the customer's evaluation of all benefits and costs in relation to perceived alternatives. The CPV is changing systematically but generally can be distinguish between core value of a product or service and added value components rooted in the relation<sup>51</sup>:

$$\text{CPV} = \text{core value} + \text{added value}$$

Therefore, company should focus action and planning on the creation of added value in the on-going relation with customers.

Summing up, in order to gain competitive advantage and create value for the customers, company has to possess the ability to create and coordinate long-term collaborative relationships called supply chain. The network should be based on openness and trust as a

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<sup>48</sup> Dwyer, F. R., Tanner, J. F., "Business Marketing: Connecting Strategy, Relationships, and Learning", 3rd edition, McGraw-Hill/Irwin (2006)

<sup>49</sup> Hutt, M. D., Speh, T. W., "Business Marketing Management: A Strategic View of Industrial and Organizational Markets", 7th edition, Harcourt Inc. (2001)n

<sup>50</sup> Best, R.J., "Market-Based Management. Strategies for Growing Customer Value and Profitability", p.121

<sup>51</sup> Grönroos, Ch., "The relationship marketing process: communication, interaction, dialogue, value", Journal of Business & Industrial Marketing, Vol. 19, No. 2 (2004), p. 109

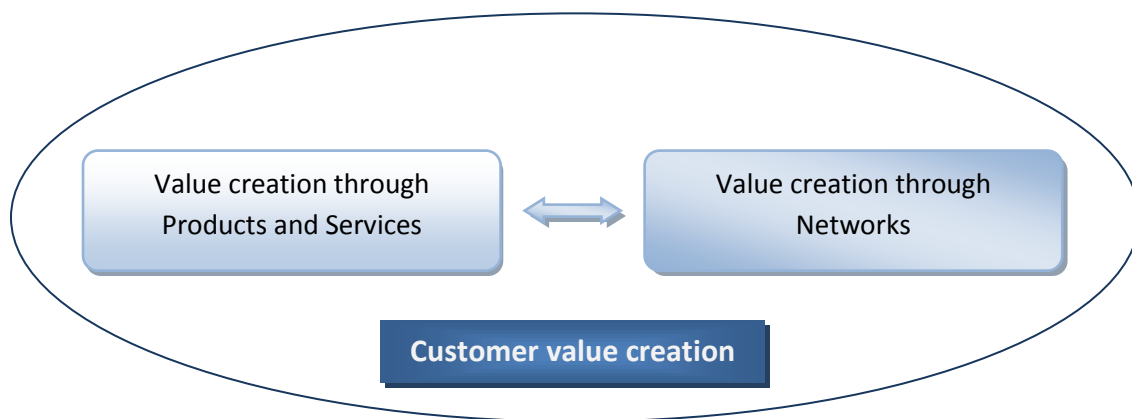
condition for achieving the best possible results.<sup>52</sup> Customer satisfaction is the key indicator of the success and, therefore, the company should build on-going relations with business partners to be sure that the value perceived by customers will be greater thanks to professional SCM.

#### 4.4 Creating value in business relationships

In this section a discussion regarding value creation in business relationships will be conducted, as we found it important to establish the level of company's value creation and find appropriate ways for a company to generate value in business-to-business relationships.

Nowadays, many business markets are organized as networks. Companies no longer compete as separate units but as whole networks of interrelated partners. Within these networks, firms jointly participate in a **value creation through relationships, alliances and partnering**<sup>53</sup>. Therefore, as shown in figure 8, joint value creation is considered as an important element in overall customer value creation.

Figure 8 Customer value creation



Source: Own creation based on Ulaga, W., „Customer Value in Business Markets. An Addenda for Inquiry”, (2001), p.317

In our opinion, **collaborative relationships** in business markets are of great importance to customers, but also to suppliers. More often, those relationships are perceived by companies as opportunities to achieve competitive advantages and superior results. We think that, customers will decide to invest in a certain supplier relationship only if suppliers can offer

<sup>52</sup> Ibid, p. 49

<sup>53</sup> Ulaga, W., „Customer Value in Business Markets. An Addenda for Inquiry”, (2001), p.316

them a superior value. Offering superior value, is perceived by us, as important factor to create and maintain long-term, mutual, customer-supplier relationships. Therefore, creating value for customers has become the essence of relationships for most of the companies. Consequently, suppliers need to understand how they can create and deliver value in business-to-business relationships<sup>54</sup>. Moreover, we think that suppliers have to learn how to response to customers' value changes, so that they can adopt faster than their competitors to these changes and avoid the deterioration of the relationship.

Customer-supplier relationship consists of activities and resources of the supplier's company and customer's company, which can create value to them. Value can come from variety of sources and activities<sup>55</sup>. Therefore, we understand that customer- perceived value can be enhanced through increasing relationship benefits or decreasing customer's company costs.

Role of relationship benefits in value creation was investigated by Ulaga. Ulaga recognized **six generic relationship benefit dimensions** (figure 9), namely, **product quality, service support, delivery performance, supplier know-how, time-to-market** and **personal interaction**<sup>56</sup>.

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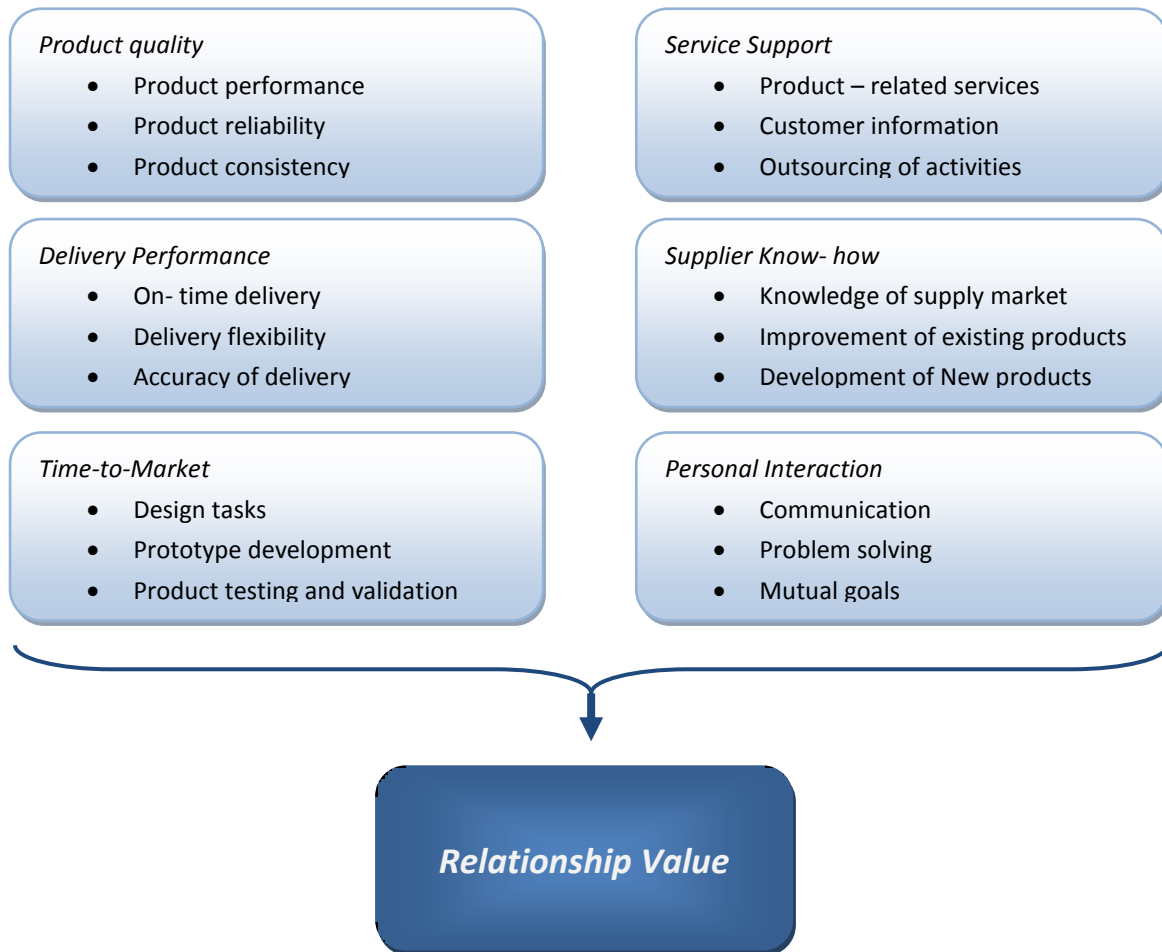
<sup>54</sup> Ulaga, W., „*Capturing value creation in business relationships: a customer perspective*”, (2003), p.677

<sup>55</sup> Cannon, J. P., Homburg, C., „*Buyer-Supplier Relationships and Customer Firm Costs*”, (2001), p.34

<sup>56</sup> Eggert, A., Ulaga, W., Schultz, F., „*Value creation in the relationship life cycle: A quasi-longitudinal analysis*”, (2005), p.22



Figure 9 Model of value creation in business relationships



Source: Ulaga, W., „Capturing value creation in business relationships: a customer perspective”, (2003), p.682

According to Ulaga’s research the main driver of relationship value is **product quality**, which is the extent to which product offered by supplier meets the customer’s requirements and specifications. It is important that supplier’s product will meet all three aspects of product quality, namely **performance, reliability and consistency over time**. It is expected that supplier will differentiate from its competition on the basis of product quality, but also it will meet certain standards. Moreover, delivery consistent quality levels should be kept over time<sup>57</sup>.

Another important dimension in relationship value creation is **service support**. We understand that service components can significantly affect the supplier’s offering and thanks to this differentiate it from other suppliers. Suppliers create value not only through **product related services**, like warranty of the product or availability of spare parts, but also **customer**

<sup>57</sup> Ulaga, W., „Capturing value creation in business relationships: a customer perspective”, (2003), p.682

**information and outsourcing of activities.** We think that suppliers have to provide all right information at the right time to its customers. They have to create the possibility for the customers to get a hold with them whenever needed and also provide them with appropriate information. Beside this suppliers can create value through consolidating the customer's supply base. They can achieve that by outsourcing tasks to suppliers such as assembly, product testing or design work<sup>58</sup>.

The third relationship value driver in B2B relationships is **delivery performance**. If suppliers want to create value for their customers in this area they have to **deliver on-time**, by constantly meeting delivery schedules. Besides delivery on time, they have to be **flexible**, that is capable to adjust to modifications in delivery schedules and **accurate**, which require the capacity to deliver the right parts constantly<sup>59</sup>.

The fourth dimension of relationship value is **supplier know-how**. In this case customer value can be created by possession of specific expertise by supplier, which is not available within customer's company. Thanks to supplier's extant knowledge of the supply market it is possible for customer to gain information about **new sourcing alternatives**. Moreover, supplier can assist its customer with conducting **improvements in its existing products**, both in terms functionality and costs, or **developing new products**.

According to Ulaga's research, there is also increasing importance of **time-to-market** in value creation. Nowadays, there is a high pressure put on manufactures to develop products at faster pace, which cause that speed and time-to market have become strategic guiding principles in designing and managing supply chains. That is why we think that it is important for the supplier to be able to reduce time-to market through **accelerating design work, developing prototypes** faster than competitors and speeding up the **product testing and validation process**<sup>60</sup>.

**Personal interaction** represents the last dimension of relationship value. It is important to develop interpersonal ties between supplier and buyer as they lead to many benefits. Thanks to them it is possible to achieve the enhancement of **communication** between both parties.

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<sup>58</sup> Ulaga, W., „Capturing value creation in business relationships: a customer perspective”, (2003), p.683

<sup>59</sup> Ulaga, W., „Capturing value creation in business relationships: a customer perspective”, (2003), p.684

<sup>60</sup> Ulaga, W., „Capturing value creation in business relationships: a customer perspective”, (2003), p.686

This can lead to more effective and efficient **problems resolutions** and **better understanding of each partner’s objectives**. All these benefits significantly affect the relationship as a whole<sup>61</sup>.

#### 4.4.1 Level of value creation through supplier-customer relationship

The essential aim for a supplier and customer company engaging in a relationship is to work together in a way that creates value for both of them<sup>62</sup>. That is why, supplier and customer have to be aware in which relationships invest. In previous section dimensions, which create value for the customer were presented. But before increasing relationship benefits, it is important for the supplier to find out which of its relationships provide more value and which provide less value. In order to understand the current situation of the company the **model classifying value creation through supplier-customer relationship** will be applied (table 3).

**Table 3 Model classifying value creation through supplier-customer relationship**

|  |      |                              |                               |
|--|------|------------------------------|-------------------------------|
| Direct value-creating functions of supplier-buyer relationships      | High | Selling relationships        | High-performing relationships |
|  | Low  | Low-performing relationships | Networking relationships      |
|  |      | Low                          | High                          |
| Indirect value-creating functions of supplier-customer relationships |      |                              |                               |

Source: Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.373

After reviewing the selected literature it was found out that it is possible to distinguish **direct and indirect functions of supplier-buyer relationship**. **Direct functions** are related with loyal customer and reliable supplier. On one hand, loyal customer purchases a steady volume of products and thus provides supplier with a regular cash flow<sup>63</sup>. On the other hand, reliable supplier, always fulfils its selling agreements. **Indirect functions** refer, for instance, to innovation development or access to information possess by others. Product and process innovation developed together with a customer or supplier may improve its value. Beside this,

<sup>61</sup> Ulaga, W., „Capturing value creation in business relationships: a customer perspective”, (2003), p.688

<sup>62</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.365

<sup>63</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.367

in order to achieve a success, suppliers have to obtain market information, which can be gathered and disposed by its customers and vice versa<sup>64</sup>.

Looking at the **model classifying value creation through supplier-customer relationship** there are four different groups of supplier-customer relationship<sup>65</sup>:

- **Low performing relationships**- which indicate that both direct and indirect value creating functions of supplier-customer relationship are low. This can be caused by fairly new relationships, that have not developed a clear pattern of functions, but there can be a good potential to develop them. In this box there can also be previously better performing relationships that have changed in the meantime because of different reasons. If a relationship fulfills neither direct and indirect functions then the supplier should conduct a critical analysis to evaluate the future potential of this relationship. If analysis shows that the relationship will be ineffective in long run, supplier should not waste its time and resources to maintain it in the future.
- **Selling-buying relationships**- which involve only direct functions. In order to develop those relationships supplier should be prepared to manage them properly. Because of complexity of the selling task, supplier should expand not only capabilities of a single salesperson, but develop a whole group within its organisation that will be responsible for managing selling relationships. This means the selection of the selling team leader, who will be responsible for all actions related with negotiations and relationships developments. A seller, who will be a primary contact for a customer, and customer service representative for providing installation, maintenance and other customer services.
- **Networking relationships**- these relationships have a strong impact on value creation in connected relationships, providing high indirect value-creating functions and low direct value creating-functions. Within these relationships there is a need to gather valuable resources, such as, know-how, new products and market information, and transform them into value by facilitating them into connected relationships. Success in this case depends on supplier ability to transfer resources from networking relationships to connected relationships. It is claimed that salespeople or sales

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<sup>64</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.368

<sup>65</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.373-375

managers may be overcharged to achieve this. That is why, management of these relationships should be embedded and coordinated within broader range of other relevant management activities in the supplier's company.

- **High performing relationships**- where full range of direct and indirect value functions is exploited. Being in this box is very valuable for supplier and customer, but on the other hand the relationship itself and its management are very complex. It is suggested that the best team the cross-functional team, which will compose of personnel out of different departments from the supplier's company, should be able to manage this relationship. This team should be able to interact with high-potential customer and through that exploit their relationship and demonstrate competence in areas such as selling existing products and developing new ones.

According to this model, companies have to spare some time on analysis their relationships in order to allocate their resources in relationships which will create value for them. Both partners have to understand the value creating functions within the relationship in order to develop strong and long-term relationships. Furthermore, an effective management is required. It was shown that the relationship management is influenced by what value functions are fulfilled in a given relationship<sup>66</sup>.

Summing up, we found out that in the dynamic nature of B2B relationships, collaborative supplier-customer relationships are of growing importance in value creation. That is why, it is essential for suppliers to know which activities and resources of its company and customer's company lead to value creation. In this project we suggest that product quality, service support, delivery performance, supplier know-how, time-to-market and personal interaction are the main dimensions of relationship value. Moreover, we revealed that an important point for a company is to find out which relationships are worth to maintain in order to generate value. The conceptual framework presented in this section will support supplier within this area.

#### **4.5 Information: the way of increasing value across the Supply Chain**

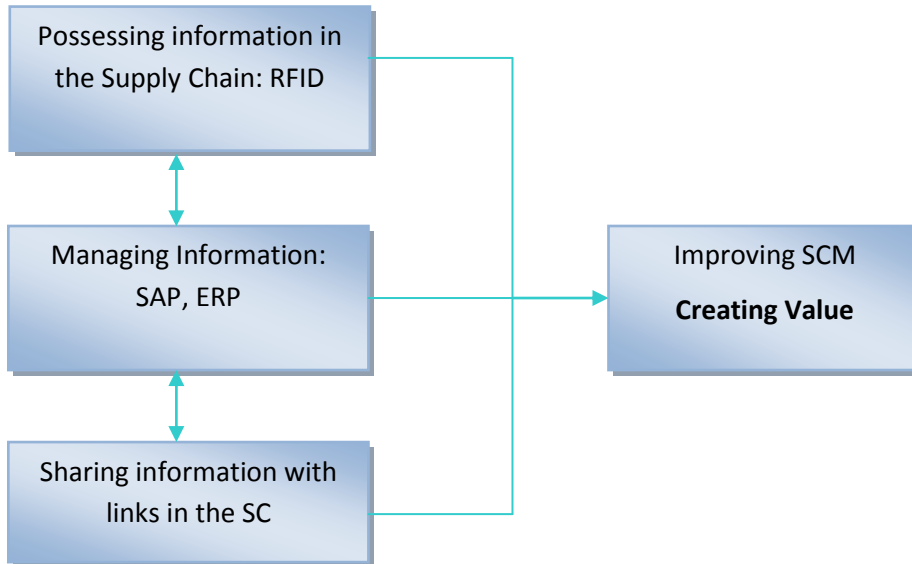
In this section the Radio Frequency Identification System (RFID) will be presented and described. This part provides the reader with the basic information about this particular improvement. Gained knowledge should help to understand the advantages and disadvantages

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<sup>66</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p. 375

of this system which are also discussed below. Then there is a focus on the ERP character, as well as on the benefits and value brought by the system. Finally, Internet advantages are indicated and discussed.

Figure 10 Creating Value process



Source: Own creation

#### 4.5.1 RFID system and its application

Radio Frequency Identification (RFID) is a system that allowed reading physical tags on single products, box, pallets, or re-usable containers. There are two types of the tags; active and passive. First possesses own energy sources that increase their range. Second does not possess energy source, their range is not so high but the tag price is lower.<sup>67</sup> Released signal is picked up by the reader device. These tags and devices must be supported by a sophisticated software architecture that enables collection and distribution of location-based information in real time.

The RFID system combines the technology of the tags and readers with access to the global standardized databases, ensuring real time access to up-to-date information about relevant products at any point in the supply chain.

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<sup>67</sup> Franz, J.W., „What is RFID?...and what can it do for metal producing processing operations” January - February 2008, Metal Producing & Processing, p. 22

#### 4.5.1.1 *RFID in the value creation*

Before implementing RFID system, it is significant to discuss the benefits coming from the change. We found it important to classify the value that can be created to advantage the company, the customers and the whole supply chain.

According to Andre Pino, vice president of supply chain solution provider Acsis, RFID can increase the value in the main business areas. It allows for precise data **monitoring** in the real time and improves effectiveness and responsiveness through the end-to-end **process integration** across the chain. RFID improves **information access** by means of insight into all activities and associated performance across the company. As well, the system helps to **eliminate delays** among the processes and reduce time cycle for the product movement. Moreover, reduction in product and process errors and associated revise through **the automation** of standard processes, which allows human resources to focus more closely on exception processing. Automation allows human intervention to be reduced or even eliminated, allowing manufacturers to deal with changing workforce trends. System gives the opportunity to **reduce the risk** of regulatory and customer non-compliance in the supply chain, as well as **reduction in organizational and logistical systems** and operational costs through simplified and more efficient manufacturing and distribution processes.<sup>68</sup> The improvements can influence the whole Supply Chain. It is quite easy to imagine the self ordering systems in warehouses and shops. During the way from the factory to the final customers, it will be possible to verify the exact transportation process of the product.

Beside the fact that, the RFID concept was created in the 1970's it is continuously evolving.<sup>69</sup> Nevertheless, still some disadvantages of the system should be identified since the value creation could be weakened. Firstly, the integration of the RFID system with others systems like ERP, SAP can cause some difficulties and in consequence negatively influence the effectiveness. Moreover, it is common that any significant change actually reduces efficiency at first. This is usually known as the "learning curve". However, the act of forcing changes to established procedures somehow brings out positive results. At last it should be mention that some technical tag problems can also occur. One tag hidden after other will not be found. However, this problem slowly disappears during technology improvements.

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<sup>68</sup> Kenney, B. ,, *10 reasons to adapt RFID: a quick overview of the answer to the question: What is in RFID for me?*” March 2008, Industry Week, p. 68

<sup>69</sup> Hewitt, M., ,, *Do you know what RFID is? Media investment executive Marian Hewitt does and has shifted her career accordingly.*” October 2006, The Newsletter on Newsletters, p. 3

Nowadays, when information is one of the most valuable assets RFID system start enjoy good reputation. The biggest market chains as Wall-Mart, Tesco or Makro start using that system to achieve cost savings. This solution can offer precise, real time information and improves sharing information with other supply chain partners.

#### 4.5.2 Software: ERP Systems

Computer software constitutes in the modern company as the main communicating tool. Nowadays, most of the companies comply with the Enterprise Resource Planning systems (ERP). ERP is a tool which **increases the integration** of data possessed by the company, helps to process them and provides easy access. Most often ERP is consisting of many components as hardware (computers) and software. Mostly ERP systems use a unified database to store data for various functions found throughout the organization. The complex system provides functionality that covers all organizational functions like SAP R/3 needed in SCM. Nevertheless, there are systems which coordinate only a part of the company, for instance Payroll & Accounting system. In different organization ERP system can differ from the others. It is caused by individual ERP system planning for different organizations.<sup>70</sup> ERP is like an umbrella that covers all organizational fields and distributes needed information to the right units in real time.

##### 4.5.2.1 ERP improves the value

Before ERP systems were implemented in the company's life, each department in the organization had their own computer system, data and database. Unfortunately, many of these systems were not able to communicate with each other or require to store or rewrite data to make it likely for cross computer communication. Having information and data from different departments in the separate computer systems, makes it more time-consuming, complicated and requires a greater deal of work to process certain functions. "Once an ERP system is in place, usually all aspects of an organization can work in harmony instead of every single system needing to be compatible with each other."<sup>71</sup>

Therefore, ERP system provides company with great advantages creates value for the cooperating units and benefits them. ERP system is totally **integrated** which positively affects **customer service**. It improves efficiency and productivity levels, which in consequence helps to lower total costs. Moreover, it possesses ability to streamline different processes and

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<sup>70</sup> Sprecher, M., "The future of ERP in the public sector" August 1999, Government Finance Review, p. 49

<sup>71</sup> <http://www.tech-faq.com/erp.shtml>, data acquired at 20.07.2008



workflows which makes company's performance more effective. As well the system ensures successful monitoring process and **forecasting**.<sup>72</sup> This solution improves organizational effectiveness and reduces possible mistakes. All data can be easily reachable and available after inserting them to the system. Integration is the key part in the ERP. It is extremely important to integrate all company data and processes.

### 4.5.3 Internet

Internet becomes indispensable information source for the companies and their customers. The greatest advantage of the Internet is the possibility to find all needed information in the relatively short time, discuss doubts and share opinions with other users. Nowadays, any developing company can not exist without Internet access. Its popularity comes from many factors. Firstly, it is a fast and convenient way of exchanging information and data with trading partners, and potential customers<sup>73</sup>. Moreover, communication through this network is one of the cheapest solutions, comparing for example with electronic data interchange (EDI) or fax. Finally, Internet application can be customized to meet the specific trading partners' requirements.

Nowadays, Websites are the most common way of gathering information from the Internet. Most companies possess their own Websites with their portfolio, products and services because it is a good way to get customer's attention. The user can as well acquire information from on-line libraries, articles, discussing forums. Specialized website browsers, like for instance Google, which help to search and manage all information in the most convenient way. Those solutions were also created to save potential business partners' and customers' time. Moreover, today's technology enables to search through Websites on the mobile phones, PDA or other small devices. Websites are built on the wireless application protocol (WAP) standards that take into account devices limitations which consequently gives an opportunity to use internet almost everywhere and at any time.

#### 4.5.3.1 Online procurement system

Internet development contributed to the creation of **new virtual business models**. As an example of that particular business model, the Internet companies should be mentioned, which exist in the virtual space and the buying process takes place in the electronic network.

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<sup>72</sup> Stedman, C., „*What's next for ERP?*” August 1999, Computerworld p. 48

<sup>73</sup> Research: Clampitt 1991; Kettinger and Grover 1997; Warentin, Sayeed and Hightower 1997; Bird 2000

After transaction is completed, the product is delivered to the buyer. This way of purchase is more convenient for the customers and in many cases also cheaper. On the other hand, there are some disadvantages of this virtual process such as lack of opportunity to check, touch, smell or try the product. Online procurement can be alternative to the traditional way of purchasing or supplement. It could be observed that also existing shops enlarge their service by using electronic network. The simplest example can be international chain of Wall-Mart stores that sells goods both in real and virtual shops. Online procurement has created an opportunity for the companies to **increases their selling area**. The Internet does not have any borders; the only limitation is the access.

Nevertheless, the on-line shopping contributes to the creation of **greater competition**. As it was mentioned previously the Internet is a fast way of acquiring information and therefore the customer could more effectively search for a good which meets his/her requirements and bring the highest value to them. Consequently, companies should make an effort to catch the attention and loyalty from their customers.

#### **4.5.3.2 Communication tools**

From the beginning Internet was used as an effective communication tool. On the internet foundation, many types of the information software as e-mails, internet messengers, chat rooms, blogs and forum were created to benefit their users. Those tools perfectly fit today's business world.

- E-mail – gradually displaces traditional mails as the message reaches its destination faster and more cost-efficient. Most companies take advantage of this tool to communicate with the supply chain echelons.
- Instant messengers – the way of communication in the real time. Instant messengers have developed over times. Nowadays, existing technology enables to communicate as well by written text as by sound and vision conference (i.e. teleconference) where partners from different places can discuss their opinions.
- Blogs, bulletin, and forum – those applications are directed to all potentially concerned. It enables to share information with others by open messages, discuss problems and experiences. Companies slowly start to notice the benefit resulting from those communication tools.

- Internet Questioner – is a method of possessing information from the environment. It gives an opportunity to receive results when the minimum number of respondents fills the survey. Nevertheless, findings are limited only to the internet users' opinions. Therefore, the sample can not be representative.

Although the Internet provides its users with the great advantage, some companies are skeptical when it comes to sharing essential information. Therefore, if the supply chain “partners are deeply concerned with the potential security risks of inter-organizational on-line communication, they are unlikely to have a strong interest in sharing significant or strategic information over the Internet. [...] The literature on business-to-business (B2B) e-commerce suggests that the security concern is a major determinant of a company's willingness to communicate with each other and conduct businesses over the Internet.”<sup>74</sup>

Summing up, we found out that RFID system is a useful application which allows for precise monitoring in the real time and improves effectiveness and responsiveness through the end-to-end process integration across the chain. RFID is a great tool for gathering information through the supply chain. In turn, to support company' performance, there is ERP system, which combines company's activities and improves information flow within it. According to Internet, it becomes a significant information source for the business players. Thanks to the internet it is simple to communicate with business partners, which makes performance more effective.

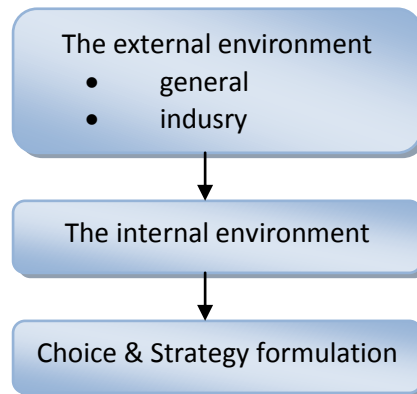
#### 4.6 Strategy management

The strategy and consequent company's performance have an important effect while the customer value creation process. The company should determine which way is the best to choose and check if its foundation and resources are enough to meet market requirements. Therefore, it is not sufficient to manage the supply chain effectively without having full understanding about the external environment and the internal situation of the firm. Only then, the company can develop in the right direction and satisfy the customers by increasing the value gained through the process and the relationship. Consequently, in this section the reader will acquire the essential knowledge of the strategy building process.

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<sup>74</sup> Cai, S., Jun, M. & Yang, Z. „*The impact of international internet communication on purchasing performance: a study of Chinese manufacturing firms*”, Journal of the Supply Chain Management, No. 7/8 (2006), p.16

Figure 11 Strategy building process



Source: Own creation

### 4.6.1 External factors

To gain strategic competitiveness and create the value for its customers, the company must be aware of the different terms of the external environment. Therefore, information about the general environment and the industry should be acquired before any strategic action is taken. On the foundation of gathered knowledge, the company may build close relationship with suitable partners in the environment by creating an effective supply chain.<sup>75</sup>

The **general environment** is composed of many factors from the society which influence the particular sectors. Those features may be distinguished between demographic, legal, economic, social and technological ones. Actually the company can not have them under full control or influence those elements in any way. Nevertheless, the knowledge of the general situation is used for strategy selection process. Secondly, the **industry factors** should be identified. In fact, they affect the company more directly than the general environment. We think that the Porter’s five forces model is valuable method for the analysis. The model aims to give a better understanding of the industry context where the company operates. To create competitive advantage the company should analyse competitors’ profile within the industry. This knowledge helps to understand competitors and predict their moves. Nevertheless, the key elements in this analysis should comprise the suppliers and customers as they are the potential links in creating long-term and strong network. Moreover, essential knowledge about current situation within the sector and its participants helps to define the company’s position among others and build the right strategy.

<sup>75</sup> Hitt, M. A., Ricart, J. E., Costa, I. & Nixon, R. D., “*Managing Strategically in a Interconnected World*”, John Wiley & Sons (1998), p. 12

#### 4.6.1.1 Porter's five forces

Company, which aspires to create a long-term business strategy and consequently gain competitive advantage, has to analyse the environment. If a company understands the nature of all factors affecting its performance, it has greater chances to defend against threats and to influence the forces with its strategy. Consequently, we decided to apply Porter's Five Forces model into the project at hand.

- **Threat of new entrants** – New entrants that can threaten the market share.<sup>76</sup> The chance for new companies to enter is mostly determined by entry and exit barriers.
- **Bargaining power of suppliers** – Powerful suppliers can significantly reduce profitability of the business.<sup>77</sup>
- **Bargaining power of buyers** – The most important determinants of buyer negotiating power are the size and the concentration of customers. Moreover, buyers are more powerful when the product is undifferentiated and when buyers are price sensitive.
- **Threat of substitute products** – Products or services which satisfy the same need. The industry becomes unattractive when product can be easily substituted.
- **Intensity of rivalry** - This force is located in the middle of the model, where other four forces influence all players. The competitors are mutually dependent<sup>78</sup>, where one's action initiates the responses of competitors.

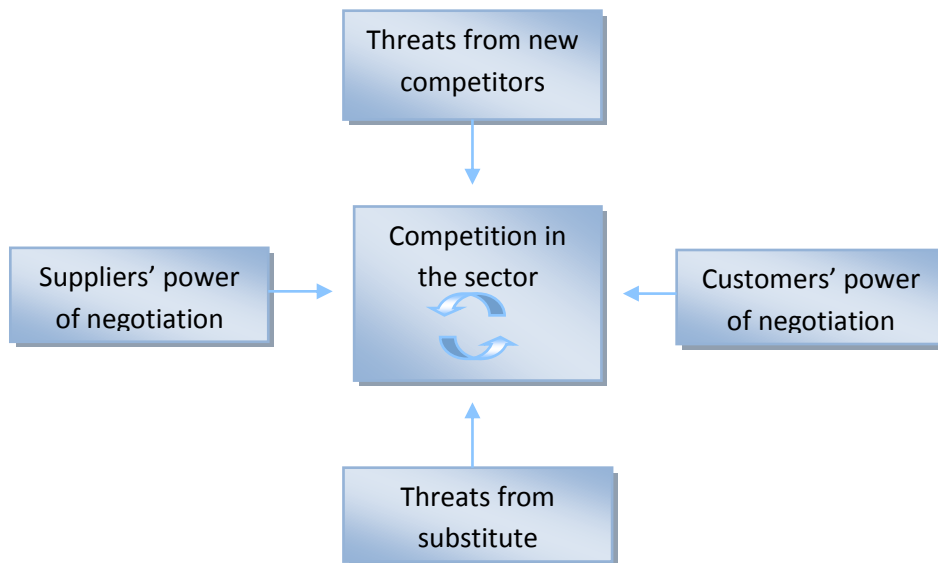
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<sup>76</sup> Geroski, P. A., "Early warning of new rivals", Sloan Management Review, (1992), p. 107-116

<sup>77</sup> Kotler, P., "Management Marketing", Pearson Education International, 11<sup>th</sup> edition, (2003), p. 242-243

<sup>78</sup> Hitt, M.A., Ireland, R.D. & Hoskisson, R.E., "Strategic Management – Competitiveness and Globalization", Thomson South-Western, 6<sup>th</sup> edition, (2005), p.57

Figure 12 Porter's five forces model



Source: Porter, M. „*How competitive forces shape strategy*”, McKinsey Quarterly, McKinsey & Company, Inc., p.36

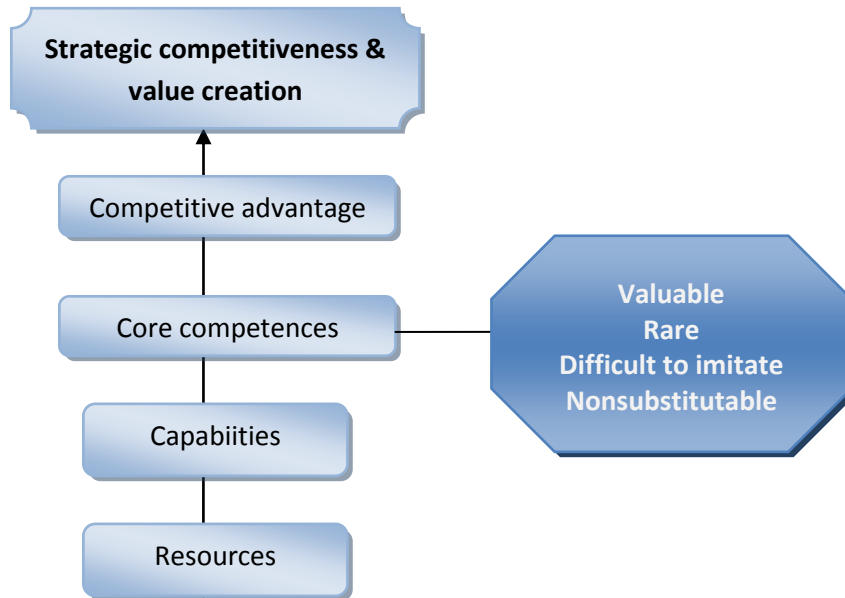
#### 4.6.1.2 Criticism of the model

It is important to be aware that Porter's model has further limitations in today's market environment. In fact, it bases on the economic situation from 80's, where the market was relatively stable. Nowadays, business world is described by unstable market conditions, and the nature and relative power of the forces tend to change. The industry is continuously being affected by innovation that indicates Porter's model being of limited value. This model cannot fully explain or analyze today's dynamic changes that have the power to transform whole business. Therefore, it is advisable to base a strategy not only on Porter's model but also to examine it at the frameworks of other methods. In the project, we are going to use several tools and techniques, as mentioned in methodology and theoretical framework, and therefore the threat of Porter's model infirmity is minimized.

#### 4.6.2 Internal environment

Firstly, company should identify its resources, capabilities and competences and then create strategy where employing the best areas of performance helps to benefit the company itself and the customers. Figure 13 describes how companies should use their resources and capabilities to build strategic competitiveness and create the value through its action.

Figure 13



Source: Own creation based on the market information and Hitt, M.A., Ireland, R.D. & Hoskisson, R.E. „Strategic management: Competitiveness and Globalization”, p. 75

By developing core competences and competitive advantage to meet market requirements, the companies create **value for the customers**.<sup>79</sup> In fact, the core competences are the capabilities to use all resources in the most effective way which ensure gaining the power over competitors. In other words, the core competences reflect company’s personality. “Firms create value by innovatively bundling and leveraging their resources and capabilities.”<sup>80</sup> Consequently, companies which are not able to employ their core competences in a way that create value for the customer gradually lose their market share.

### 4.6.3 Building the strategy

Nowadays, the business world is quite complicated correlated with many factors which may positively or negatively affect company’s performance and activities. It is easy to achieve success when the business environment is stable, where there are no changes and no strong competition. Nevertheless, the business reality is different. Therefore, the company cannot play and maintain on the market without clear strategy where the key issues are defined.

<sup>79</sup> McEvily, S. K. & Chakravarthi, B. “The persistence of knowledge-based advantage: An empirical test for product performance and technological knowledge”, Strategic Management Journal, No. 23 (2002), p. 285-287

<sup>80</sup> Nambisan, S. “Designing virtual customers environments for new product development”, Academy of Management Review, No. 27 (2002), p. 394-396

Commonly, competition is one of the most important issues while creating the company's strategy since it is about to sustain within the business in highly competitive environment. This form of planning within well known economic structure, dictated by demand and availability of resources, is called **Red Ocean Strategy**. The red ocean represents the existing business in the market place, where borders are clearly defined and all members know the market, its characteristics and rules. There is no or very little space to innovate or change. In this situation, good analysis of the external and internal economic structure might generate profit for companies which are active and have all required resources to fulfill customers' needs. Then it is possible to take advantage over others and be successful within existing market. Nevertheless, profit margins have limits since there is defined demand scale. Thus, the companies try to beat their competitors and gain a greater share of the market. Therefore, it is significant to develop such strategy, where, besides fulfilling an existing demand, the company is able to discover new desire which creates a new demand. Such strategy is called **Blue Ocean Strategy**. „Blue ocean strategy challenges companies to break out of the red ocean of competition by creating uncontested market space that makes the competition irrelevant.”<sup>81</sup> The blue ocean represents the uncovered business, demand creation and consequently an opportunity to grow. Even though the core of the blue ocean strategy is about discovering a new market place beyond the existing economic borders, it is also about extension of the activities and expanding borders within the exiting business. Therefore, it should be easier to become successful since no such great resources are required.

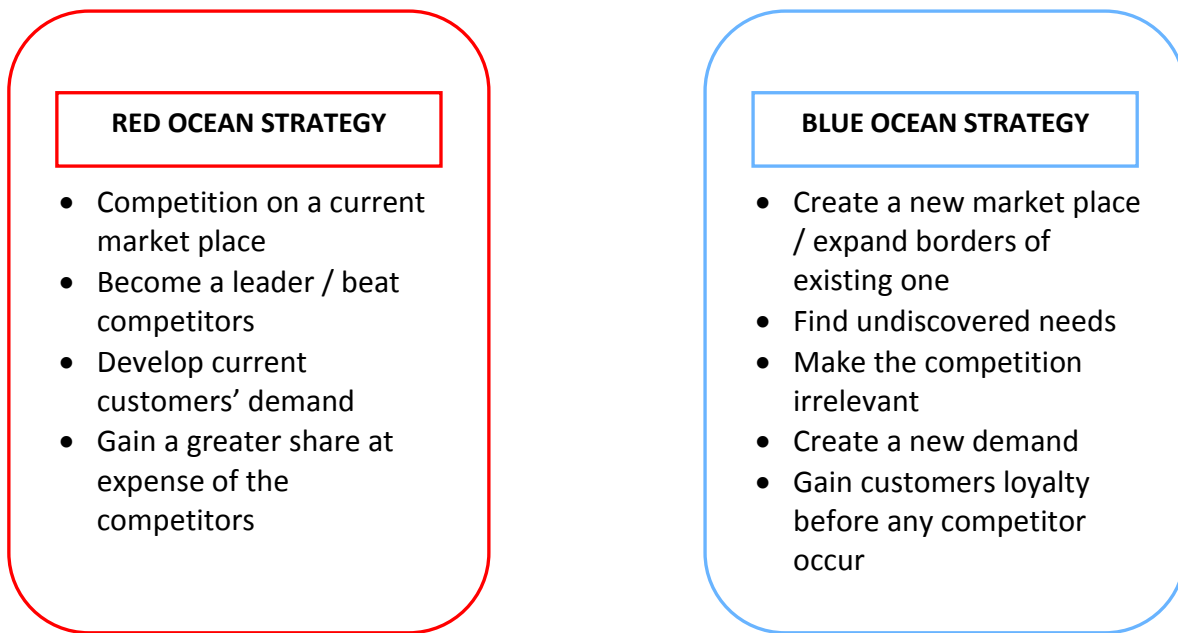
Certainly, it is important to perform successfully in the red ocean by out competing other actors since it still matter and will always be a fact of business life. Nevertheless, the blue ocean strategy is a right way as competing for a share and for costumers' loyalty within existing business cannot be enough to maintain high performance.

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<sup>81</sup> Kim, W. Ch. & Mauborgne, R. "Blue Ocean Strategy", Harvard Business School Press, (2004)



Figure 14 Red ocean vs. Blue ocean strategy



Source: Own creation based on Kim, W. Ch. & Mauborgne, R. "Blue Ocean Strategy", Harvard Business School Press, (2004)

#### 4.6.3.1 Criticism of Blue Ocean Strategy

It is important to be aware that Blue Ocean concept has few limitations and can not be a great solution for all businesses. In Blue Ocean it is crucial to identify customers' requirements, since it is needs-based strategy. Nevertheless, it has to be remembered that changes in customers' needs can not be seen as an ultimate reason for expansion because it will not always translate into a great success. Kim and Mauborgne do not follow a deductive process and assume that all blue ocean strategies are winning. In practice, success is driven by many external factors, which can be independent of the company and internal elements, which can be not sufficient for business innovation. Moreover, Blue Ocean strategy is effective and generates benefit only when changes are valuable for customers and difficult to imitate for competition in short time.

Summing up, it is obvious that not all of the new created companies can maintain on the market. It should be even said that business failure is rather common. Therefore, the company, which wishes to be successful, has to create clear goal-oriented strategy. The strategy is mostly about the choice, which affects outcomes in the future. It is an integrated combination of commitments and activities intended to exploit core competencies and gain a

competitive advantage through value creation process.<sup>82</sup> Consequently, the strategy should be a resultant of the further analysis of external and internal factors affecting the company.

#### 4.7 Sub-conclusion

Summing up, this section provides the conceptual framework, which was created based on our discussions regarding customer value concept and value creation process.

The discussion conducted in this chapter revealed that customer value reflects the personal value of individual customer. Moreover, in nowadays dynamic marketplace the perception of value shifts very often, so it is very difficult task to assess value and ways of its enhancement. We found out that Woodruff's customer value model, which examines attribute, consequence and goal layers of customers' decision process, can be useful for assessing customer value. In our opinion, an important point is to perceive value as an overall assessment of the utility of a product or service based on customers' learned perceptions, preferences and evaluations. Thanks to this, it is possible to link together attributes of products or service with use situations and related consequences experienced by the customer.

According to supply chain management we found that goal of SCM is to create value for the whole supply chain, from the origin to the end consumer. To achieve competitive advantage and create value for the customers, company has to establish cooperation with members of the chain.<sup>83</sup> We revealed that nowadays companies should engage in a relationship with their customers. They should work together in a way that creates value for both of them. The Ulaga model and model classifying value creation through supplier-customer relationship can provide supplier with the tool that can be used to define which kind of relationships should be held and how to manage those relationships in order to generate value.

Then, it was concluded that company, which wants to satisfy customers and be competitive on the market has to follow information technology, which is a key for the right communication. We found that RFID system, which allows for precise monitoring in the real time and improves effectiveness and responsiveness across the chain, can be a great tool in the near future of pallet business.

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<sup>82</sup> Hitt, M.A., Ireland, R.D. & Hoskisson, R.E. „*Strategic management: Competitiveness and Globalization*”, p.22

<sup>83</sup> Grönroos, Ch., “*The relationship marketing process: communication, interaction, dialogue, value*”, *Journal of Business & Industrial Marketing*, Vol. 19, No. 2 (2004), p. 49

Finally, we concluded that successful company has to create clear goal-oriented strategy. Since the perception of value shifts very often, the strategy should be more elastic that the company can easily fit to the market. The strategy should come up from the further analysis of external and internal factors affecting the company. We found that Porters' five forces model, conducted survey, observations and interviews are sufficient for evaluating the competitive environment and formulating the strategy, which will make a profit and benefit the customers. We also found that the company should both develop on existing market and look for expansion across the borders of the current business (Kim and Mauborgne).

## 5 Analysis of value creation process in EP Serwis Sp. z o.o

Previous part of the project has provided a short presentation of the company, its industry profile and a discussion regarding the most relevant theories of the customer value and the process of its enhancement. Theoretical part, has presented also the conceptual framework that can help to understand, which aspects companies should examine in order to increase value delivered to their customers. In this section, it is relevant to conduct an analysis of each following topic previously discussed in the theoretical part. This chapter will contain the discussion and specific consideration regarding EP Serwis.

### 5.1 Overview of the business

Firstly, this section will provide reader with a brief of the packaging market, which is important for further understanding of empirical part.

#### 5.1.1 Package

Package is a product which could be made from different materials, dedicated to protect, distribution and storage of goods from raw materials to final products. It is an integral part of the goods supply chain. As well as packaging secures products from damage, it also allows efficient distribution, informs and helps to promote goods in the market place.<sup>84</sup> Therefore, roles of packages<sup>85</sup> were identified below:

- protection,
- marketing – stimulate sales, encourage people to buy,
- information transmission – inform the consumers,
- security,
- ecological – by reusing or recycling packages,
- logistic and convenience.

The industry defines many different kinds of logistic units like containers, bottles, cans, barrels, cartons, boxes, pallets, etc. Therefore, we can identify several sectors within the packaging industry. As mentioned previously, EP Serwis specializes in the pallet business and therefore the accurate analysis will focus on that sector.

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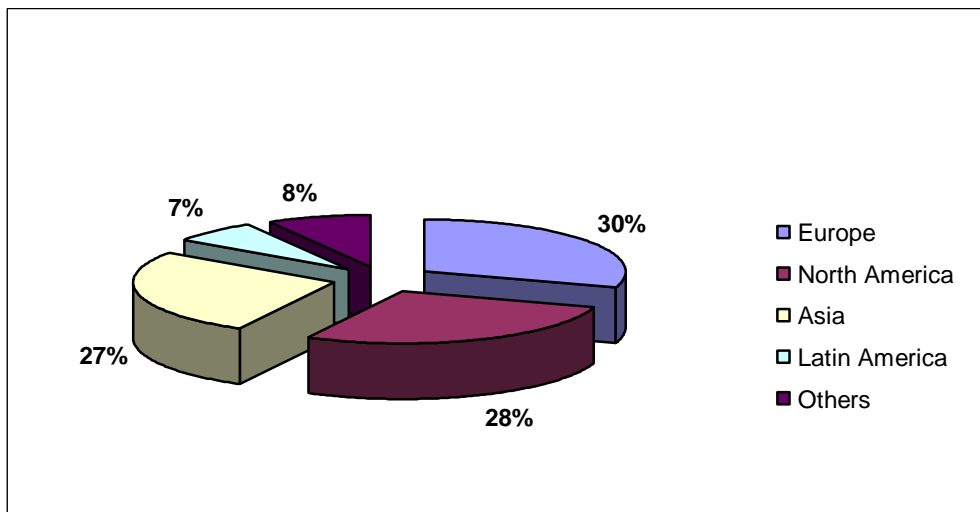
<sup>84</sup> INCPEN - The Industry Council for Packaging and Environment

<sup>85</sup> Akademia Menedzera ltd., „*Gospodarka opakowaniami zwrotnymi*” PowerPoint presentation (2007)

## 5.2 Packaging market overview

The packaging industry continues to rise, where projected market growth constitutes for 3,5%<sup>86</sup>. Now, global packaging industry is worth approximately 424 billion USD<sup>87</sup>. The graph presents how this value is divided into continents. It can be easily noticed that the majority of the world packaging consumption stands for Europe and North America. The reason for that is better development of those regions and, consequently, higher consumption.

Figure 15 Consumption of packages



Source: own creation based on information gathered from [www.packaging-gateway.com](http://www.packaging-gateway.com)

Packaging industry tries to make packaging easier to use and more convenient for other businesses, for instance in transportation and warehousing, and for consumers, through providing better protection using less material and then generating less waste. Under the European Packaging Directive, “the industry has to meet strict requirements to prevent the use of excessive packaging”<sup>88</sup>.

### 5.2.1 Polish packaging market

Packaging sector creates 2% of Polish GDP and therefore its value can be estimated for 13-15 mld PLN. Although now this 2% gives Poland poor position comparing to other European countries (average 2,5%), the value tends to grow. Moreover, there are predictions that Polish packaging market is going to double its value within next 10 years.

<sup>86</sup> [www.packaging-gateway.com](http://www.packaging-gateway.com)

<sup>87</sup> [www.packaging-gateway.com](http://www.packaging-gateway.com)

<sup>88</sup> INCPEN - The Industry Council for Packaging and Environment

On the Polish market there are 7.000 entities involved in production of packages. The market is diversified, and a great majority of companies are rather small. Nevertheless, big companies (approx. 100 employees) dominate 60% of total sales, they constitute only for 2% of all producers of packages.<sup>89</sup>

### 5.3 Assessment of pallets customer value

In this section the analysis of the value for pallets' customers will be conducted. Complexity of the concept causes that it is of great benefit for EP Serwis to achieve a clear understanding of it. First, the overview on pallets, their destination and characteristics will be addressed. Although EP Serwis is involved in the business covering only wooden pallets, it is worth to know and understand the difference between products, which are considered as substitutes. Afterwards, based on issues of customer value explored in theoretical framework, the model capturing the essence of customer value will be applied.

#### 5.3.1 Pallet types

Firstly, we would like to provide reader with explanation of what is a pallet. **Pallet** is a flat transport structure that supports goods in a stable fashion<sup>90</sup>. It is the foundation of a unit load design, where the goods can be placed on it, and secured with straps or stretch-wrapped plastic film.

There are four basic parameters<sup>91</sup> that determine pallet suitability for a given application. These parameters are strength, stiffness, durability and functionality.

- **Strength** is the load carrying capacity throughout the transportation and storage environments. Pallets should be strong enough to support the required load. In this case metal pallets are considered to be the strongest.
- **Stiffness** is the resistance of the pallet to deformation under load. Here, wooden and metal pallets should be mentioned.
- **Durability** is the ability to withstand the rigors of the shipping and handling environments.
- **Functionality** is the compatibility of the pallet with the packaging and material handling equipment. It also includes things such as fire safety, weight etc.

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<sup>89</sup> Statistical data gathered from GUS Poland


<sup>90</sup> Interview with Zbigniew Pawulski, Manager, information acquired at 16.09.08

<sup>91</sup> Clarke, J. „*Industry Overview and Wood, Plastic, Paper, and Metal Options*” (2004), report

Even though the market is becoming global, most of the pallet sizes are still different for different regions of the world. For example, a standard pallet size throughout EU is a rare size in the rest of the world. However, there are trends towards domestic and global pallet size standardization.

Secondly, division of pallets concerning the material they are made from is needed to understand the differences, destination, advantages and disadvantages. Therefore, five main categories will be fully described in the following section.

Table 4 Types and characteristics of pallets

| Types of pallets  | Description   |
|---|---|
|  <p data-bbox="180 1146 402 1182"><b>Wooden pallets</b></p> | <p data-bbox="635 833 1402 1249">Wood was the principal raw material and remains the most common pallet material around the world<sup>92</sup>. Wooden pallets are cheaper than plastic ones and are characterized by higher friction, cargo capacity and stiffness. The main disadvantages are difficult to keep them clean, low durability and high rot rating. They are widely used by department stores, warehousing and in train and truck transportation.</p> <p data-bbox="635 1272 1402 1796">The cheapest pallets are made of <b>softwood</b> and are often considered as disposable ones to be discarded as trash at the end of the trip. These pallets are simple stringer pallets. <b>Hardwood</b> pallets cost more to manufacture than the equivalent strength stringer pallets but their durability is longer. The advantage of block pallets is full access on all 4 sides for both forklifts and pallet jacks. Wooden pallet construction specifications can depend on the pallet's intended use, the expected load weight and type of wood desired.</p> <p data-bbox="635 1863 1402 1946">On the European market, the EuroPallet (EUR standard pallet) is widely used within many industries. Its size is</p> |

<sup>92</sup> Bush, Robert J. & Araman, Philip A. "Changes and Trends in the Pallet Industry" hardwood market report

80 by 120 by 12 cm and it is one of the six footprints recognized by ISO<sup>93</sup>. Manufacturers must obey the **Euro-Pallet Association** (EPAL) requirements, which govern the smallest details, even which types of nails and lumber may be used.<sup>94</sup> EPAL's quality certificates are widely accepted in the EU, Japan and USA.



**Composite wood pallets**

Those pallets are cheaper than plastic or metal pallets. Advantages include a smooth and 100% coverage deck surface and durability. Moreover, they save storage space and are manufactured from recycled wood. They are suitable for air transport thanks to low weight. Disadvantages are that they cost more than solid wood, are expensive to repair, less weather resistant than plastic or metal.



**Metal pallets**

They include pallets made from steel and aluminum. **Steel** pallets are strong and are used for heavy loads and long term dry storage but they are relatively expensive comparing to wooden pallets.

**Aluminum** pallets are lighter than steel, weather and rot resistant but they cost about 2-3 times that of steel. According to their weight, they can be used for air transportation as well as for long-term outdoor storage.

Metal pallets are preferred where durability and product protection are key measures. They are widely used in clean, closed loop environments. General advantages are strength, stiffness, durability and sanitary. Disadvantages are higher initial price, weight, low friction.

<sup>93</sup> ISO 6780: *Pallets for Materials Handling – Principal Dimensions for Flat Pallets* (2001)

<sup>94</sup> Interview with Zbigniew Pawulski, Manager, information acquired at 16.09.08





**Plastic pallets**

They are extremely durable comparing to wooden pallets, however their price is 3-6 times higher as hardwood. They are weather, rot and corrosion resistance and easy to clean. Plastic pallets can break under heavy loads and then become unusable as they cannot be repaired. Deflection rating is high which means that they are not so stable when putting many levels one-on-one. Because of the features plastic pallets are widely used within the dairy, pharmaceutical and beverage industries. Plastic pallets can be a good long-term investment but should be used in the closed systems.



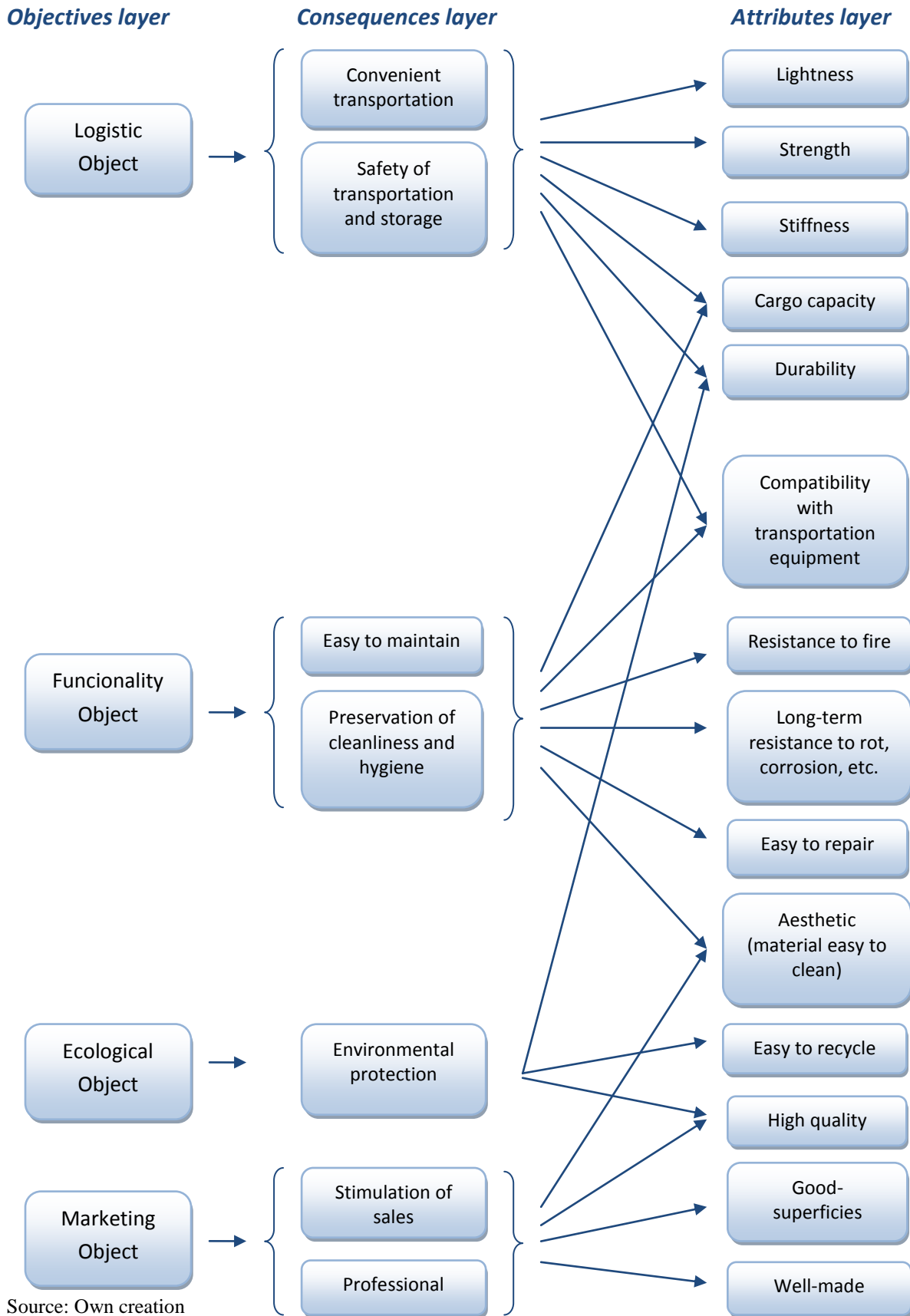
**Paper pallets**

They are often used for light loads. Paper pallets find acceptance mainly within niche markets. Nowadays, new markets have opened driven by globalization process and increased air transportation with weight-based charges. Paper pallets are also used where recycling and easy disposal is important. General advantages of paper pallets are that they are lightweight and easy to recycle. Disadvantages include lack of stiffness with flexible loads, low durability and low product protection.

### 5.3.2 Pallets customer value hierarchy model

Applying Woodruff's customer value model it is possible to uncover the objective-consequence- attribute chain in relation with pallets' value. Figure 16 shows how customers consider pallets in a hierarchical structure. It integrates both desired and received customer value.

Figure 16 Pallets customer value hierarchy model



Source: Own creation

It was revealed that managers have to understand what customer's value is, so that they will know where they should focus their attention. In our opinion uncovering the customer value hierarchy can be very useful in EP Serwis case.

Customer buying behaviour is often presented as purposeful and goal-oriented that is why we started our analysis with **objectives layer**. It was found out that pallets customers mainly use four objectives, while assessing value of the pallets, namely, **logistic object, functional object, ecological and marketing objects**. Afterwards, these goals and purposes guide them in attaching importance to **consequences**. It was found out that convenient transport, safety of transportation and storage is important consequence of logistics object. In order to deliver value for customers in use situation pallets should be easy to maintain and there should not be any problems to keep them clean, which is related with functionality goal. Moreover, ecological object attaches importance to the fact that pallets will not contaminate the environment, while and after their usage. In addition to this, customers expect that while using pallets they can stimulate sales, which is related with the marketing goal.

Thanks to achieving in-depth understanding of the consequence layer it was possible for us to identify customers' key buying criteria, which are understood as **preferred or desired attributes**. After the evaluation of attribution value dimensions it was found out that the most important features of pallets are their weight, appropriate cargo capacity, resistance to fire, rot and corrosion, strength and stiffness, which also influence their durability. In addition to this, pallets should be compatible with the transportation equipment, used by the customer of pallets. It was found out that for a certain group of customers it is important that material, which is used to construct the pallet, is of high quality and it is possible to achieve high level of aesthetics. On the other hand, there is also one group of customers that put a lot of attention to the superficies of pallets so that they can be used also to achieve marketing goals.

**EP Serwis provides only wooden pallets, what can significantly limit the number of attributes, which customers use to judge the value.** As it was mentioned before, the main attributes of wooden pallets are stiffness, high cargo capacity, they are compatible with transportation equipment, relatively easy to repair and recycle. Furthermore, the number of objectives which can be satisfied by goal-oriented customers is limited when we will take into consideration wooden pallets. By applying Woodruff's customer value model into EP Serwis

case it was found out that wooden pallets can partly satisfy logistic objects, functionality and ecological objects.

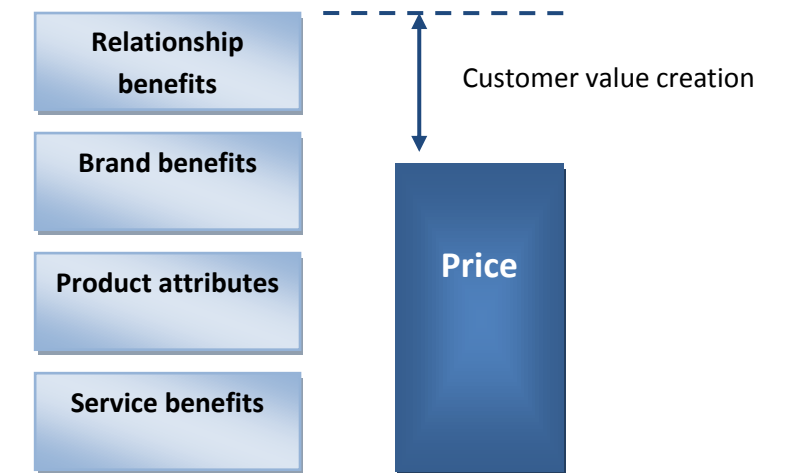
An analysis of customers' preferences regarding pallets shows that direct costs of the product and reputation of the company are also very important aspects in evaluating its value. According to the results of the survey (Appendix 1) all customers claimed that price is very important factor, while their decision making process.

**Price** is an important characteristic and often give more consideration than the other factors. Wooden and paper pallets are much cheaper than plastic and metal ones but they also have some disadvantages, therefore, the company has to balance the price versus the needed features. The decree issued in 2006 by Minister of Environment, which charge fees on the pallets producers, had a great impact on the price of pallets. It has to be noticed that government does not charge any fees for the wooden pallet production.

Because of pallets are rather standardised products, companies have to find a way to increase customer value not only through enhancement of products attributes and price. One way of delivering a superior value to customers can be **business brand or company reputation**. For some customers brand name and reputation can provide potential benefits. These benefits are intangible, but the survey shows that for 86% of EP Serwis's customers they are of great importance.

Taking all previously mentioned aspects into consideration we can illustrate EP Serwis's process of value creation (figure 17).

Figure 17 Customer value creation



Source: Own creation, based on: Best, R. J., “Market- Based Management; Strategies for Growing Customer Value and Profitability”, Prentice-Hall, (2000), p. 79

EP Serwis can create value for its customers by increasing products attributes, brand benefits, relationship benefits or service benefits and lowering costs or maintaining the reasonable price of the product. Service and relationship benefits will be the aim of analysis in following chapters of the project.

Summing up, the discussion conducted in this chapter revealed that there are different types of pallets, which have different destination and characteristics. This causes that they represents different value to the customers. We found out that the Woodruff’s customer value model could be applied in EP Serwis case. Thanks to this model we could uncover the objective-consequence- attribute chain in this chapter. Thanks to this EP Serwis’s managers will better understand how customer think about the pallets’ value and what they take into consideration when they judge the value.

#### 5.4 Market players and relations in the Supply Chain

In this section, the business players and market map will be presented. After this part, the reader will understand the market and complicated relations between its members. Consequently, it will help to identify and evaluate the value creation process occurring in the supply chain.

The pallet industry is an interesting subject for analysis due to its specific business to business relations closed in the circle. There is no end user and the pallet circulates many times, changing its owner frequently. Therefore, relations within the pallet business can be perceived as very strong since actors have to establish long-term cooperation to maintain in the “circle”.

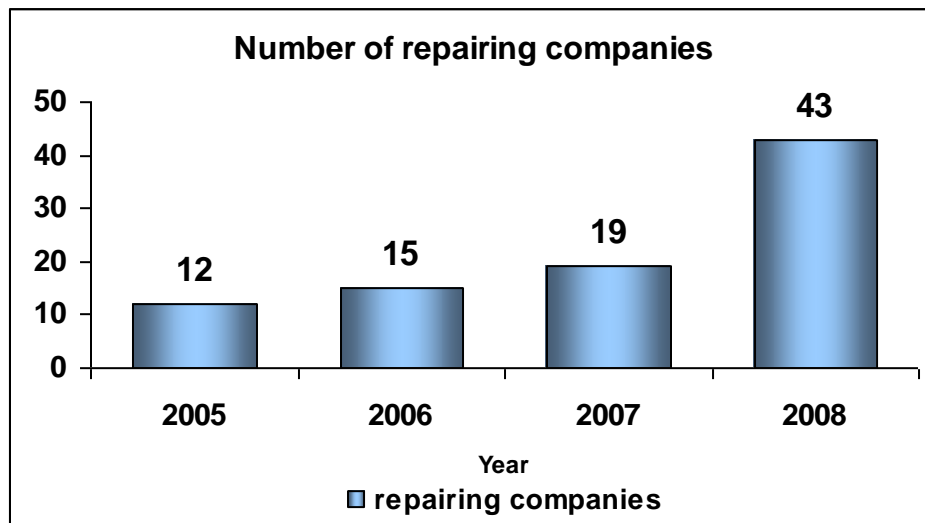
Thus, we can distinguish seven main players on the pallet market between which relations are created.

- **Sawmills** - Wood is a main material used both for production and repairing process of wooden pallets and its elements. Due to many environmental regulations it is also the most difficult pallet material to gather. It is possible to import wood from other countries or purchase from polish forest private owners or from Polish National Forests. Nevertheless, import is the most expensive way since costs of transportation are relatively high. In turn, private owners are not able to assure continuity of deliveries, because of small size of theirs forests. Therefore, for the pallet producers it is significant to cooperate with sawmills which are able to supply them with raw material on time and with required amount. Consequently, producers and repairing companies try to establish **long-term contracts** with sawmills. Although in Poland more than 1300 sawmills operate on the market, it is difficult to find a supplier who fulfil one's demand.
- **Repairing companies** – The advantage of wooden pallets is that they are easy to repair. Generally, it is more efficient to replace broken parts than produce a new pallet. It is worth to mention that pallets are divided into two categories; with EPAL certificate and without certificate. Pallets with certificate can be repaired only by companies with license for pallet repairing. In turn, non-certified pallet can be repaired by anyone but it has to be remembered that this kind of pallet is not fully accepted in the business. Thus, the number of companies without license is not known. However, the number of pallet repairing companies is growing systematically. According to EPAL's data<sup>95</sup>, in 2005 only 12 pallet repairing companies were registered. During next three years this number rose to 43. Consequently, this situation strongly affects competition between companies.

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<sup>95</sup> <http://www.epal.org.pl> Data gathered at 19.08.2008

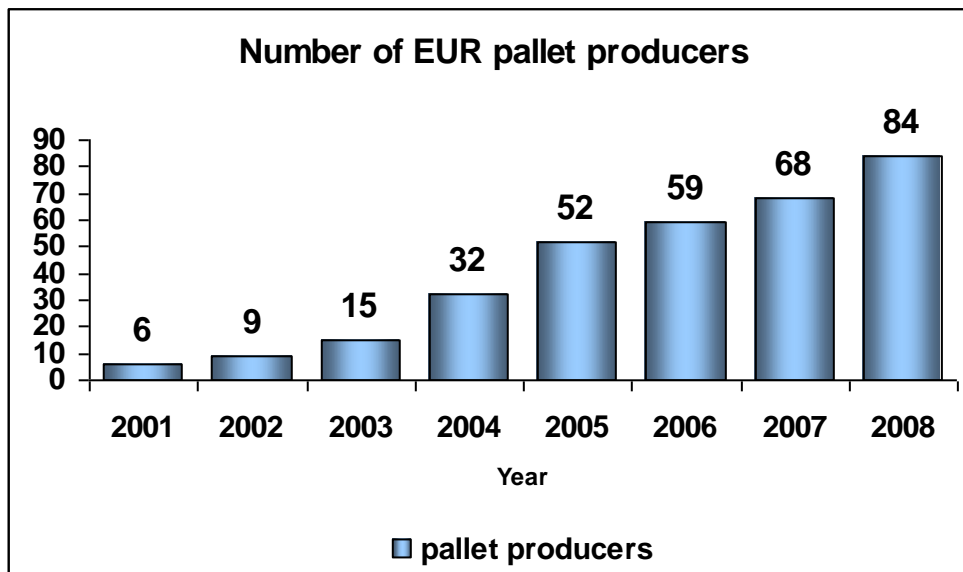
Figure 18 Number of licensing companies



Source: Own creation based on the EPAL's data: [www.epal.com.pl](http://www.epal.com.pl).

- Pallet producers** – According to legal position of the pallet producers, it is common to repairing companies. Thus, we can distinguish licensing producers who can produce pallets with EPAL and EUR symbols as well as without it and non-licensing producers who can produce only pallets without any quality symbols, which are mainly considered as disposable ones. Initially in 2001, only 6 pallets producers were registered in the Polish National Committee EPAL, and therefore, the competition was not so perceptible. Nevertheless, number of the licensing pallets producers systematically grows. After two years their number reached 15, and since that time has started to grow rapidly, reaching 84 companies in 2008 year. The number of non-licensing pallet producers is difficult to indicate but it is very probable that the number is decreasing mostly because of growing popularity of the EPAL pallets and European regulations. Certainly, some of non-licensing producers applied for EPAL certificate to avoid bankruptcy. Consequently, the competition is quite fierce. That situation forces pallet producers to look for new solutions for pallet development and value creation for customers.

Figure 19 EUR Pallets Producers



Source: Own creation based on the EPAL's data: [www.epal.com.pl](http://www.epal.com.pl).

- **Manufacturers** - Manufacturers are the main customers for the pallet producers and repairing companies. They need pallets for transportation and storage of produced goods. Depending on manufacturers' size, they possess and require different number of pallets. For experienced pallet companies, it is significant to gain customers with high market share. Nevertheless, the key manufacturers have strong bargaining power that helps to negotiate better contract conditions. For EP Serwis it is valuable that relations with manufacturers are rather long-term.
- **Wholesalers, Retailers** – Since the goods are always transported on pallets or in the containers to their destination, it is obvious that the wholesalers and retailers are the next link in the pallet circulation. They receive pallets and depending on contract with manufacturers have to deal with them.
- **Purchasing centers** - Since last three years their number has significantly increased. The business is to collect pallets from the market and then resell them. At the time purchasing centers start developing by repairing broken pallets. According to their size, we can distinguish big and small purchasing centers, where bigger ones usually have also a license for repairing.

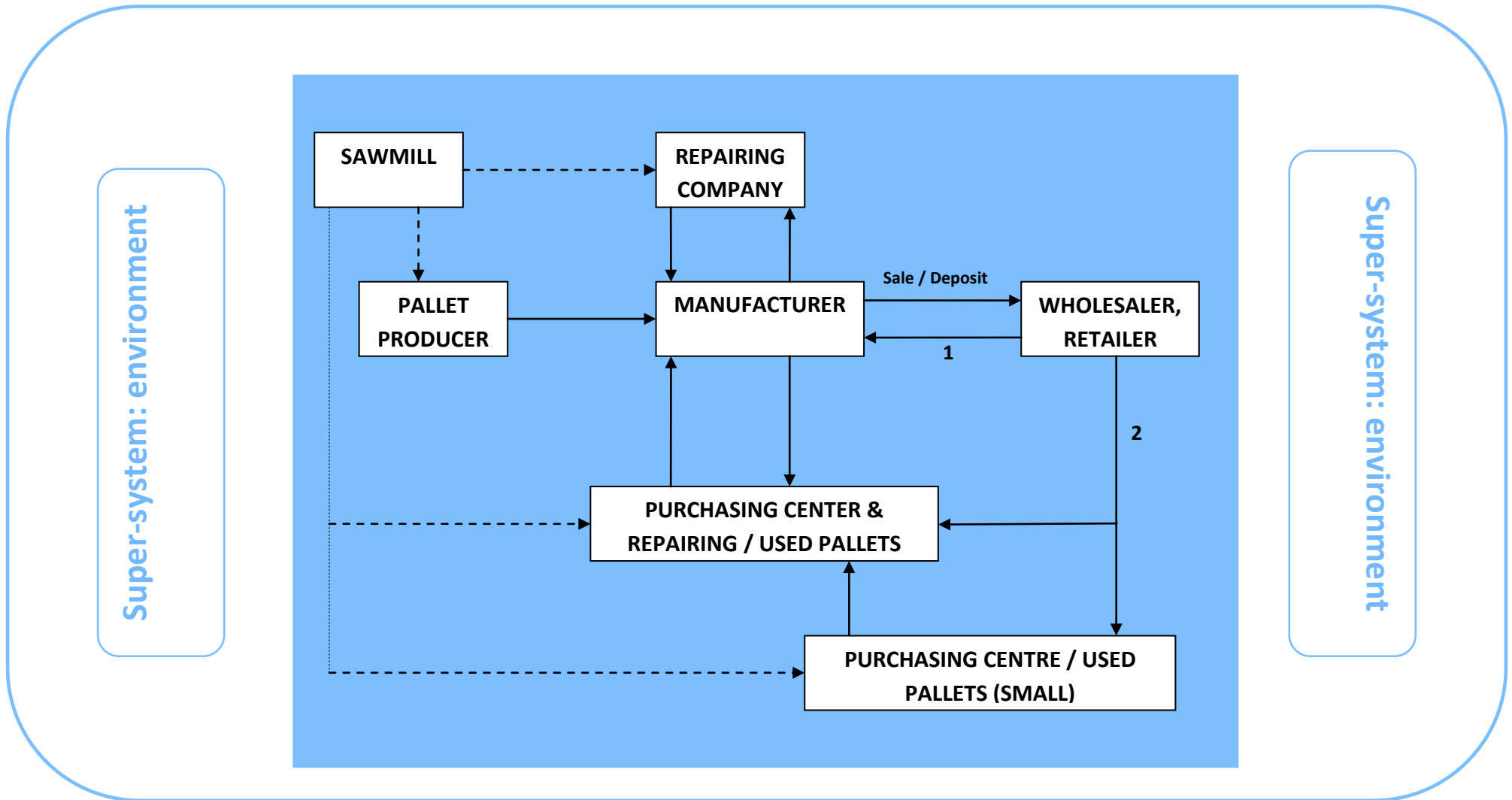
#### 5.4.1 Market Supply Chain Relations

On the pallet market, relations occur between above mentioned market players. In this pallet cycle, there is the pallet producer as a first link in the business which sells the pallets to the



manufacturing company. Consequently, manufacturer's products are transported on the pallets to the wholesaler or the retailer. Here, depending on the manufacturer's power, he can sell the products together with the pallets or sell the products with charging a deposit. This fee will be given back when pallets return to the owner (1). In the former one, the wholesaler / the retailer has to rid out of the pallets (2). Therefore, the next link in the chain appears i.e. pallet purchasing center. The large pallet purchasing center has certificates required by law, and thus, they can both resell the pallets and repair the broken ones. The small pallet purchasing center usually has no rights to repair the pallets, according to the law regulations, so they job is to resell gathered pallets to the large pallet purchasing center. Beside the purchasing centers, there are also companies which specialize in repairing broken pallets for the manufacturers. In the cycle there are also sawmills which supply pallet producer, pallet purchasing centers and repairing companies in the raw material (i.e. wood).

Figure 20 Market Map of non-rental pallet cycle



Source: own creation based on information gathered from EP Serwis ltd.

## **5.5 Analysis of value creation in EP Serwis's business relationships**

In this section the analysis of value creation through EP Serwis's business relationships will be conducted. By applying model presented in chapter 3.4 we will analyse EP Serwis's relationships with its customers.

### **5.5.1 Analysis of EP Serwis's relationship benefits and value creation**

As it was mentioned in theoretical part customer value can be generated through products and services, but also through networks entered by the company. EP Serwis operates on business to business market, where number of potential customers is relatively small and what is more new customers do not enter market very often. It was found out from the interview that conditions in which company operates require long term cooperation and relationships with customers. Maintenance of good relationships should be of great importance for both companies. That is why, we find it essential to analyse relationship benefits that can be offered by EP Serwis to its customers. For this purpose the Ulaga model will be addressed.

In order to conduct the comprehensive analysis of value creation through supplier- customer relationships, the group has decided to use the results of survey provided by EP Serwis. The survey was conducted in the first quarter of year 2008. Figure 21 presents the results of this survey.

Figure 21 Level of EP Serwis customers' satisfaction



Source: Customer survey conducted by EP Serwis, I quarter 2008

Results presented above show that **EP Serwis's products and services are assessed by its customers quite well**. An average grade that EP Serwis received is above 4 in 0-5 scale. This means that customers are rather satisfied with the benefits, which they can get from the relationship with EP Serwis. Nevertheless, none of dimensions of value creation got the highest mark, so we can assume that there is still space for improvements to achieve full satisfaction.

### 5.5.1.1 Examination of EP Serwis's products range and their quality

From the materials provided by EP Serwis we found out that company meets the main driver of the relationship value, according to Ulaga's dimensions, which is **product quality**. We revealed that products offered by EP Serwis meet standards within pallet market. The company has a licence, which authorises it to produce and repair EuroPallets. As a result, each pallet has a buckle attached and a certificate allowing for legal trade in pallet market. This certificate is a quality mark. Moreover, there are inspections from EPAL in order to check dimensions of the pallets, humidity, their shape and other features of pallets which can affect their quality. If some pallets do not fulfill quality norms they cannot be sold. Under applicable acts, repair and production of EUR-pallets without a license is an offence and is

punishable<sup>96</sup>. Even though company meets quality standards, EP Serwis's customers assess the quality of the product quite low compared with other dimensions. This means that company should put more attention to increase its products performance. In order to achieve better results in that area company can increase frequency of conducted surveys. Thanks this EP Serwis can constantly assess customers' opinion about product reliability and delivery of consistent quality levels over time. Moreover, company should concentrate on actions aiming at improving quality systematically.

Examining the **product range** offered by EP Serwis, it was revealed that company's offer is not fully attractive for its customers. The survey shows that customers gave the lowest grade, namely 4 points in 0-5 scale, for range of products offered by EP Serwis. That is why company should consider introducing products, which could be used together with pallets, such as wooden tops, wooden lids or consider introducing new type of pallets.

#### *5.5.1.2 Examination of EP Serwis's service support*

Analysing **service support**, which is second important dimension in relationship value creation according to the Ulaga, we found out that EP Serwis deals quite good with product-related services, such as **product warranty and customer information**. Both factors were graded quite high by EP Serwis's customers, which is about 4,5 points in 0-5 scale. EP Serwis's customers do not have problems with guarantee, as usually there are not so many complaints; only a few in comparison to large amount of pallets that are monthly sold. Because of that, customers can count on fast reaction regarding their problems.

Company's customers can receive appropriate **information** relatively fast, by contacting customer service department. We found out that sales consultant are well prepared to their work. Their performance was graded quite high, which is 4,5 points in 0-5 scale. Moreover, EP Serwis is attending fairs, where customers can gain more detail information about the pallet market and product itself<sup>97</sup>. Nevertheless, company's web page is not so well developed, which makes it more difficult to obtain adequate information in real time. Furthermore, it is not possible for EP Serwis's customers to be connected to the company's computer system so they cannot exchange their data.

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<sup>96</sup> EP Serwis homepage, [www.epserwis.com.pl](http://www.epserwis.com.pl), information acquired at 25.09.2008

<sup>97</sup> Interview with Zbigniew Pawulski, Manager, information acquired at 16.09.08

Even though EP Serwis's customers can **outsource** some tasks to EP Serwis, such as design work, recycling and repair of pallets. Company does not track and manage its clients' transit equipment flows, which other international companies do. At the moment, EP Serwis is not able to help its customers to solve their supply chain problems. Because of that company cannot fully create value for its customers through consolidating the supply base. By delivering integrated services, company could reduce the number of outside companies that the customer has to coordinate.

### *5.5.1.3 Examination of EP Serwis's delivery performance*

The third value creation dimension, which will be examined, is **delivery performance**. Not meeting delivery schedules results in coordination problems and additional costs for customers. That is why EP Serwis treats delivery as a major criterion in its service evaluation. Company's motto is "always on time", so it put much attention to avoid delays. Delivery on time and speed of order fulfilment was graded, respectively, 4,25 and 4,31 points in 0-5 scale, which mean that company still have to improve this area of service. The problem can be caused by the fact that company has only one production capability, which is not enough to serve all customers. Moreover, according to the survey company's delivery is not flexible enough. If delivery requirements change, customers expect their suppliers to adjust to these modifications immediately. Customers want to shorten delivery cycles through just-in-time delivery. As a result supplier should keep safety stocks in order to meet its customers' requirements. We revealed that even though EP Serwis's deliveries are accurate and it meets delivery schedules, company does not distinguish itself among other companies selling pallets. If competitors have pallets on stock their delivery time can be similar to EP Serwis<sup>98</sup>.

### *5.5.1.4 Examination of know-how and time-to-market as a relationship benefit*

Analysing dimensions of value creation within supplier- customer relationship, such as, **supplier know-how and time-to market**, we revealed that even though EP Serwis is open for cooperation and is willing to provide its customers with all needed information, company does not provide its customers with the access to company's resources, specific technical expertise or know-how. This means that company is not treated as an in-house partner for its

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<sup>98</sup> Interview with Zbigniew Pawulski, Manager, information acquired at 16.09.08

customers, which could improve their time- to- market performance. The analysis shows that EP Serwis does not create value through supplier know-how and time- to market dimensions.

#### *5.5.1.5 Examination of EP Serwis's personal interactions*

The analysis of **personal interactions** shows that EP Serwis's had some problems within that area. The interaction while conducting the deal was not direct, because negotiations were between salespersons and customers, who in most cases were managers or presidents of the companies. This made it more difficult to get the valuable answer in negotiations. Nowadays, salespersons arrange meetings, send offers and provide customers with information about the products, but during the negotiation meetings, with important and big customers, they are in EP Serwis president's company<sup>99</sup>. An analysis shows that company has introduced changes aiming at improving its interactions with customers, but there is still need to develop politic, which will focus more on value of the interpersonal skills of company's salespersons.

Summing up, after having applied the Ulaga's model into EP Serwis case, we conclude that company meets to a higher degree most of the dimensions of value creation in supplier-customer relationships. Analysis revealed that company should improve its performance within such areas as quality delivery, information in real- time and creating value for its customers through consolidating their supply base.

#### **5.5.2 Level of value creation through EP Serwis's relationships**





From the interview we found, that EP Serwis has been operating on polish pallets market since 1994. During that time, company has already established about 150 relationships with companies within whole Poland<sup>100</sup>. That is why, we find it important to analyse company's relationships and assess its current situation by applying the **model classifying supplier-customer relationships** (table 5).

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<sup>99</sup> Interview with Zbigniew Pawulski, Manager, information acquired at 16.09.08

<sup>100</sup> Interview with Zbigniew Pawulski, Manager, information acquired at 16.09.08

Table 5 Model classifying value creation through EP Serwis-customer relationship

|   |      |  |   |
|---|------|--|---|
| Direct value-creating functions of supplier-buyer relationships       | High | <b>Selling relationships</b><br>        | <b>High-performing relationships</b><br> |
|   | Low  | <b>Low-performing relationships</b><br> | <b>Networking relationships</b><br>      |
|   |      | Low  | High  |
| Indirect value-creating functions of supplier- customer relationships |      |  |   |

Source: Own creation based on: Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.373

The analysis shows that **EP Serwis has only a few low-performing relationships**. Luckily, these are rather new relationships, so we can assume that they have not developed a clear pattern of functions yet. Company has to evaluate the future potential of these relationships. Relationship development and maintenance is an investment process, so company has to be sure if certain relationship is worth to keep. The analysis indicates also that **EP Serwis has only a few networking and high- performing relationships**. This means that company's relationships do not involve the indirect value- creating functions. Because of that **company does not achieve the level of high value creation through supplier-customer relationships**.

Through analysis, we revealed that most of EP Serwis's relationships can be categorized to the group with high direct value- creating functions and low indirect value- creating functions. This means that **most of relationships maintained by EP Serwis are selling relationships**. EP Serwis can get benefits from those relationships, because it could be possible for the company to sell large quantities of products, whereas customer can get the profitable price. In this case the value is directly created through supplier- customer relationship, due to high



profits and economies of scale<sup>101</sup>. EP Serwis has 8 sales persons, who manage relationships with customers. In order to generate value through these kinds of relationships EP Serwis has to implement changes in sales department, so that the complexity of selling tasks will not overwhelm the capabilities of salespersons.

Summing up, EP Serwis is not involved in relationships, which have a strong impact on the value creation. We assume that EP Serwis does not learn about its customers effectively, which is essential for creating competitiveness in a collaborative supplier-customer relationships. Furthermore, it was revealed that even though company's salespeople possess wide knowledge about pallets, they do not possess well developed interpersonal skills, which makes interactions with customers even more difficult. That is why we assume that EP Serwis does not create value through its business relationships effectively, which can makes it difficult to differentiate itself from competition and achieve competitive advantage.

## 5.6 Evaluation of the Information tools

Nowadays, the company can perform successfully only when information about its activity is easily accessible by the business partners and the customers. Secondly, the information flow in the company's units should be clear and dynamic. It happened that information is considered as one of the most important assets in the business reality. Therefore, this section provides an analysis of the EP Serwis communication tools and explanation how they help in creating value for the customers.

The company communication strategy has changed over the last several years. EP Serwis started to put more attention on the business relations, so that it will become more recognizable within the business, trying to create a new brand image on the polish pallet market. Firstly, the company divided Poland into five main regions, where on each of them, sales representative were responsible for business contacts. This change helped to better understanding of customers' needs and to communicate with environment, which in consequence resulted in new contracts. Moreover, EP Serwis change typical business relations in more personal, informal ones. The company invested also in a website up-date, since it has not change from years. In fact, comparing to other players on the market, this action was taken a bit too late. Nevertheless, now the website is available for international customers,

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<sup>101</sup> Walter, A., Ritter, T., Gemunden, H. G., "Value Creation in Buyer-Seller Relationships", (2001), p.374

translated into four languages. This website is used to communicate with the environment, informs about the new products changes in an offer, helps to find new domestic and international customers. Information about EP Serwis can also be found on thematically connected internet sites.

At the same time as website was improved, the company changed information documents, price lists and offers which started to be sent both by e-mails and post. Information is easier to read, graphically more interesting and, therefore, more valuable for the potential customers. Subsequently, company's logo gained smoother shape, which easier gets into customers' mind. Then, besides logo, managers created slogan "EP Serwis - Always on the time", which gives positive view on the company's action.

As it was mentioned in the project, customers' satisfaction is the key element of the company's success and, thus, to understand their requirements and demands, EP Serwis checks customers' opinions by sending questionnaires and asking for feedback. The judgments help to improve performance and correct mistakes; make service friendlier and more valuable for customers.

The next step in building an effective information system and creating brand awareness was participation in the international fairs in Poland organized in Poznań in 2008. The main objective was to present the company's position on the market. Moreover, EP Serwis introduced a new service offered by the company, prepared brochures, information for the press and short movie about the company's performance. Table presents communication techniques frequently used by EP Serwis.

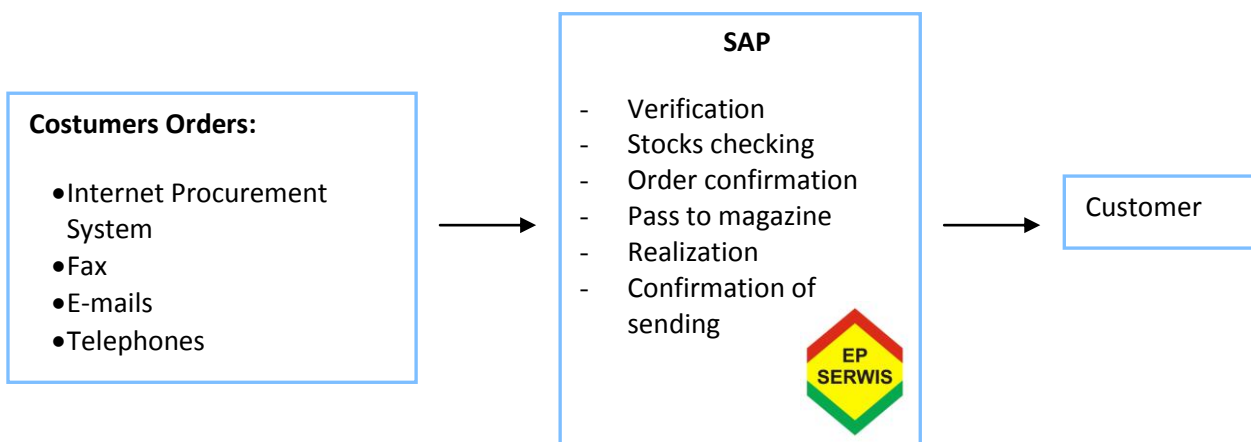
Figure 22 Communication tools in EP Serwis

- | EP Serwis - communication tools          |
|--|
| • Sales Representatives                  |
| • Company's Website                      |
| • Websites about pallet market e.g. EPAL |
| • Information Documents, Sales Lists     |
| • Offers                                 |
| • Questionnaire                          |
| • Fairs                                  |

### 5.6.1 Information system

So far, EP Serwis has performed successfully with paper documents, Excel & Access application to manage an information flow. Nevertheless, simultaneously with fast development and growing number of orders, the company decided to apply SAP, specially created system for them. Now, the system is in test and implementation phase. The system will help to manage orders, shorten delivery time and reduce number of human errors. A simplistic pattern of the new system is presented on the figure below.

Figure 23 Ordering System Diagram



The system is directly connected to the Internet, where customers can make orders through Internet Procurement System. Of course, there is also a chance to order pallets in the traditional way by fax or telephone. In such case, data is put in the system by employees. Nevertheless, SAP system is a first step in modernization of the company information management process. In the next paragraph, there is a concern about RFID system, which in the near future can revolutionize the pallet market.

### 5.6.2 RFID implementation

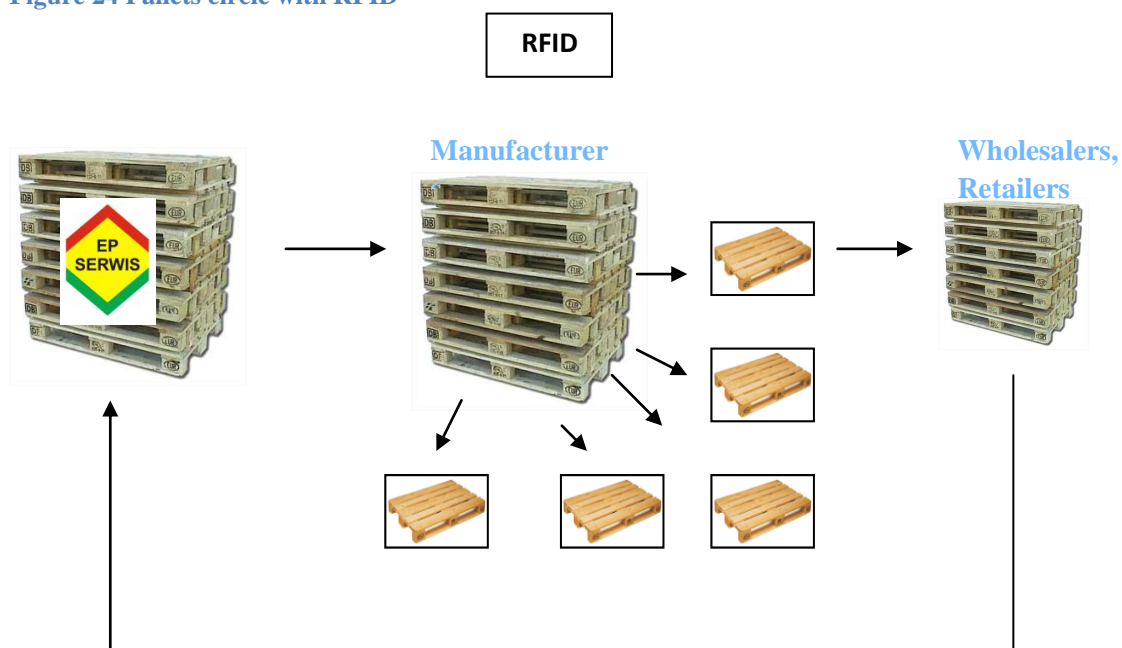
At the last conference<sup>102</sup> EPAL provided information about implementation of RFID system. EPAL plans to introduce this technology on broader scale in 2012. It can create an opportunity for EP Serwis to develop their activity and expand market borders. Advantage of the system is that RFID can be easily connected with the company's SAP system, and

<sup>102</sup> EPAL conference 11.09.2008 year in Zakopane

therefore the implementation should go smoothly without any delays. Moreover, the system is useful when managing pallet stocks. EP Serwis will know how many pallets they possess at any time, which will positively affect ordering system. RFID system is also a great tool according to the company’s plan for introduction of a new product/offer - renting pallet system, which will be fully discussed in the next part of the project

From the company’s perspective it is an immense advantage, since now on the polish market there is no any company that offers pallet with RFID system. It gives an opportunity to be a first mover and strengthen position among competition.

Figure 24 Pallets circle with RFID



Source: own creation

Summing up, thanks to the right information flow and communication tools, EP Serwis is able to establish trustful customer service where demand can be met always on time. Changes in the information system help to build brand and image of modern and developing company which put customers’ satisfaction on the first place.

### 5.7 Strategy management

Strategy management is a formulation and implementation of decisions that will enable EP Serwis to achieve its objectives. It is the process of specifying the mission, vision and developing strategic plans. It is significant to make both external (competitor) and internal analysis (self-evaluation) before any action is taken. In strategy management it is important to

consider two surfaces, company benefit and customer benefit. Therefore, through analysis of external and internal factors affecting EP Serwis activities, the project will reflect on the strategy which creates value for customer and is profitable for the company.

### 5.7.1 External environment

In this part of the project we are going to analyse external factors influencing the company's performance. Firstly, attention should be paid on the environment in general. It is important to consider factors in the society which affects industry and firms within. Then, the industry will be evaluated through Porter's five forces model.

**Economic cycle** of the pallet industry is highly related with the growth pace of the whole economy. According to the business reviews, increase of GDP growth rate by 1 percentage point results in packages demand growth by 2 percentage points. Moreover, if it comes to Poland, significant role is played by external demand (EU). Consequently, growth pace of packaging production is recently 3 times higher than GDP increase rate.<sup>103</sup> However, current situation on the global market, especially in the USA, and stock exchange fluctuations may affect negatively predicted growth of GDP. In Poland, average annual consumption of packages exceeds 100 kg per person. In comparison with Western European countries, where consumption reaches 190 kg per person, the rate is quite low. Therefore, the consumption growth is predicted in the following years.

On the European market, the EuroPallet (EUR standard pallet) is widely used within many industries. According to law regulations, manufacturers must obey the Euro-Pallet Pallet Association (EPAL) requirements, which govern the smallest details, even which types of nails and lumber may be used.<sup>104</sup> EPAL's quality certificates are widely accepted in the EU, Japan and USA.

According to **demographic segment**, year 2007 was the sixth one with negative population growth. Moreover there is negative migration balance. Consequently, the population of Poland is going to decrease from year to year. Therefore, in the near future Poland will catch up developed countries if it comes to a problem with aging population which will result in lower number of people in production age.

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<sup>103</sup> Incona - International Consulting Agency "Opakowania i maszyny pakujące..." marketing report (2006)

<sup>104</sup> [www.wikipedia.org](http://www.wikipedia.org); information gathered 17.09.2008

Following global trends of the **environment** protection, Polish government launched many regulations which negatively affect companies' performances, increase their costs and sometimes limit productivity. Therefore, there is a serious danger that some players will go bankrupt and close their businesses. However, there are also some advantages, as many illegal pallet companies will disappear from the market place. Thus, for stable and trustful companies there is a big chance for development and gaining greater share.

According to **technology segment**, it has been developing very well over the years. Consequently, companies have to follow new trends, if they want to maintain on the market. Nowadays technological progress in production is based on automation and, therefore, producers who can afford implementing it can gain competitive advantage over the rivals.

Summing up, thanks to the knowledge possessed from general environment, EP Serwis has a better understanding of the reality, opportunities and the characteristics of the competitive environment in which they perform, which can be successfully used in strategy formulation.

#### *5.7.1.1 Porter's five forces*

According to the theoretical part, Porter's five forces is a model for the industry analysis, which aims to give a better understanding and evaluating of the industry context in which the company operates. The model can help managers to determine how attractive the segments structure is.

- **Threat of new entrants** – We have decided to start the analysis with elaborating on the concept of the threat of new entrants. The sector of wooden packaging products and pallets is sanctioned by international requirements. Companies operating on the market are obligated to possess special quality certificates which confirm that their products fit to the norms (i.e. UIC 435-2 i UIC 435-3). Strict legal regulations mean that the sector of wooden pallets is characterized by high entry barriers. Therefore, it is quite difficult for the new competitors to come up on the market. New entrants can also find difficulties in gathering raw material for production since the sector suffers from the lack of wood. Moreover, there is a relatively high technological sophistication (automation) of the process especially if the company wants to become a market leader. On the other hand, sector is characterized by high growth and therefore its attractiveness increases.

Consequently, it is an optimal situation for the companies with strong business relationships that already exist on the market.

- **Bargaining power of suppliers** - Within the pallet business sector there are two levels of suppliers. There is the raw material supplier (i.e. sawmills) and the used pallet supplier called pallet purchasing centre. Sawmills have high negotiating power. They can negatively affect pallet companies' activity by setting high price for the raw material as there is not enough wood on the market due to the trees cutting down restrictions. Therefore, it is a good idea to sign long-term contracts where no price „tricks” can appear. Consequently, companies with such „backup” can be sure about raw material delivery. According to the pallet purchasing centres, they have no power to bargain as the sector is dispersed and there are numbers of used pallet suppliers.
- **Bargaining power of buyers** - Bargaining power of buyers explores how strong the buyers' position is in the industry. Although the buyers in the pallet sector can not be defined as the end consumer of the products, they possess high power of negotiation. Especially big manufacturing companies have strong position as they order big amount of pallets which gives them such a big power.
- **Threat of substitute products or services** - An analysis of threat of substitute products or services explores how large possibility and impact of substitute products can be within the industry. It was discovered that the range of products is rather small but there still exist some substitutes, for instance, pallets manufactured from plastic, metal or paper. Nevertheless, popularity of those products is different within industries and is highly related to customer's need for particular pallet's features (e.g. plastic pallets are commonly used in the dairy industry, where water resistant features are required). Therefore, there is no high threat that substitutes can revolutionize industries that EP Serwis cooperates within.
- **Intense of rivalry** - Rivalry among existing competitors, which is placed in the middle of the model, is based on the exact market competition. The other four forces are indirect affecting the market conditions. Rivalry among existing competitors refers to overall level of competition within the industry. It can be affirmed that the sector is dispersed; there are a lot companies which operate in the business. There are also several key competitors like Palimex, PHU Zbigniew Marek and Palko, which are the biggest pallet

producers on the market. In order to achieve the superior competitive position companies increase their quality and punctuality. Nevertheless, it is important to maintain competitive price as the products are homogenous.

To conclude Porter's five forces analysis, the sector is still growing and the profitability is relatively high comparing to other industries<sup>105</sup>. As the sector is still in the **phase of development** and the leaders have not really come up, each company has an opportunity to create effective strategy and become successful. Moreover, there is low threat that substitutive products occur as there are some widely accepted standards in carrying goods. Therefore, the wooden pallet sector is perceived to be **attractive** although there are quite high entry barriers for new members to cross.

### 5.7.2 Internal factors

In this part, we focus on the company itself. By analysing the internal environment, companies can determine what they are able to do, i.e. actions permitted by company's resources, capabilities and core competencies.<sup>106</sup> Nowadays, the pallet business creates new sources of competitive advantage. Therefore, it is significant to identify elements that can help to gain greater market share and be successful. Therefore, we will evaluate EP Serwis's resources, capabilities and core competencies, which are the main factors that give company the foundation for the competitive advantage.<sup>107</sup>

#### 5.7.2.1 Resources

According to firm's tangible resources it has to be mentioned that financial situation is rather stable with some seasonal problems with cash flow. EP Serwis generates figures which are, in most terms, better than competitors' ones. The problem occurs when it comes to access to raw material as there are strict environmental regulations which sanction tree cutting down activities. Therefore, sometimes the company suffers from the lack of wood, which is a significant component and can not be replaced by other material.

Regarding intangible resources, EP Serwis is led by experienced management staff which gives a great advantage for the company. They believe in success and put a big effort to develop companies' performance and, consequently, gaining customers' satisfaction which is

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<sup>105</sup> Incona - International Consulting Agency "Opakowania i maszyny pakujące..." marketing report (2006)

<sup>106</sup> Hitt M.A., Ireland R.D., Hoskisson R. E. "Strategic Management - Competitiveness and Globalization" p.74

<sup>107</sup> Hitt M.A., Ireland R.D., Hoskisson R. E. "Strategic Management - Competitiveness and Globalization" p.79



one of valuable measure of business effectiveness. According to human resources, sales representatives are well-trained and possess skills to gain new customers and their appreciation. When it comes to reputational resources the company can observe that current customers' perception of the service quality is satisfactory. Customers can fully rely on the EP Serwis performance and be sure that their problems will not stay without answer. On the other hand, we observed that the company has not built brand awareness yet, and, therefore, can lose many of the potential customers.

#### 5.7.2.2 Capabilities

The next factor which helps to gain competitive advantage is the company's capacity to use all its resources effectively. Mostly, it is the human component of the company which is the base for many capabilities.<sup>108</sup> Therefore, the most significant capabilities are an effective customer's service led by experienced sales representatives and production employees, who make their job with the highest diligence assuring quality of the products. Then, EP Serwis has effective management techniques, which resulted in the fast growth and development in the past 2 years. Moreover, EP Serwis has clear view for the future and ability to emerge both existing and future resources.

Summing up, EP Serwis carefully evaluates its internal environment and maintains its strengths by constantly investing in its resources. The company spends its surplus on both production and marketing. The company willingly invests in new technology like automation line for pallet repairing (2006) or new production line for wooden supports (2007). They believe in high potential and quick development. EP Serwis participates as well in pallet business events, for instance fairs and conferences. Thus, EP Serwis becomes more recognizable on the polish pallet market as a modern company that is not afraid of changes and modernization, which in consequence **benefit customers**.

#### 5.7.3 Strategy formulation

After analysis of both external and internal factors, and conclusions made after CHEP conference about „**Pallet market challenges in Poland**“ which took place in 2008 in Warsaw, managers decided that they should expand company's activity. It is crucial to develop current offer and better understanding of customers' needs and value creation.

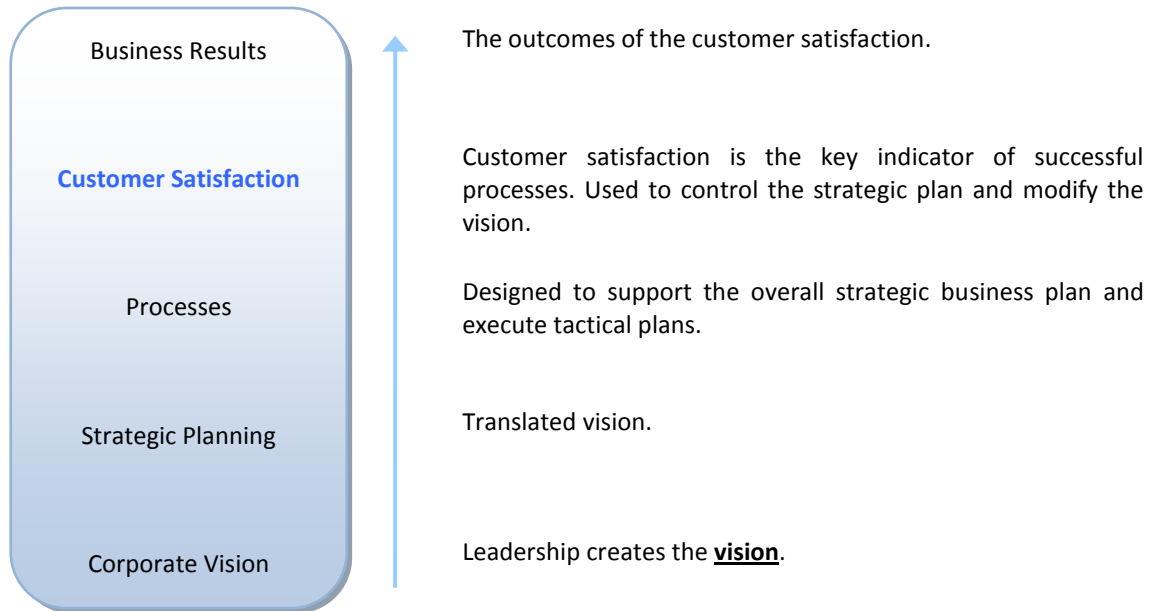
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<sup>108</sup> Hitt M.A., Ireland R.D., Hoskisson R. E. *“Strategic Management - Competitiveness and Globalization”* p.82

5.7.3.1 Vision & Mission

According to Tan (figure 25), gaining customer satisfaction is connected with vision and strategy establishment, where customers' value is mentioned from the beginning.

Figure 25 Strategic vision



Source: Own creation based on Tan, K.C., "A framework of supply chain management literature", European Journal of Purchasing and Supply Management 7/2001, p. 41

Therefore, after takeover in 2005, managers decided to precise the company's mission, which by definition, is an externally focused statement of a firm's unique targets and activities. Consequently, EP Serwis's mission, which is defined below, focuses both on the company and customers benefit.

**Company's Mission:**

Comprehensive **customer service** within maintenance of collective packaging covering production, repair and recycling. We focus on ensuring **benefits** and **added values** for our customers, shareholders and employees.

**Company's Vision:**

To become **a leader** within providing pallet service operating within „always on time" motto.

5.7.3.2 *Red ocean vs. blue ocean strategy of EP Serwis*

Before EP Serwis reformulates its strategy, it is important to compare the current business and the future business outcomes. It is not only about customers' satisfaction but mainly about benefit for the company, since a successful business should make a profit.

Table 6 Outcomes from businesses

|                         | Is the resource or capability valuable? | Is the resource or capability rare? | Is the resource or capability costly to imitate? | Is the resource or capability nonsubstitutable? | Performance implications     |
|-------------------------|---|-------------------------------------|--|---|------------------------------|
| <b>Current business</b> | YES                                     | NO                                  | NO   | NO  | <u>Average returns</u>       |
| <b>Renting system</b>   | YES                                     | YES                                 | YES  | NO  | <u>Above-average returns</u> |

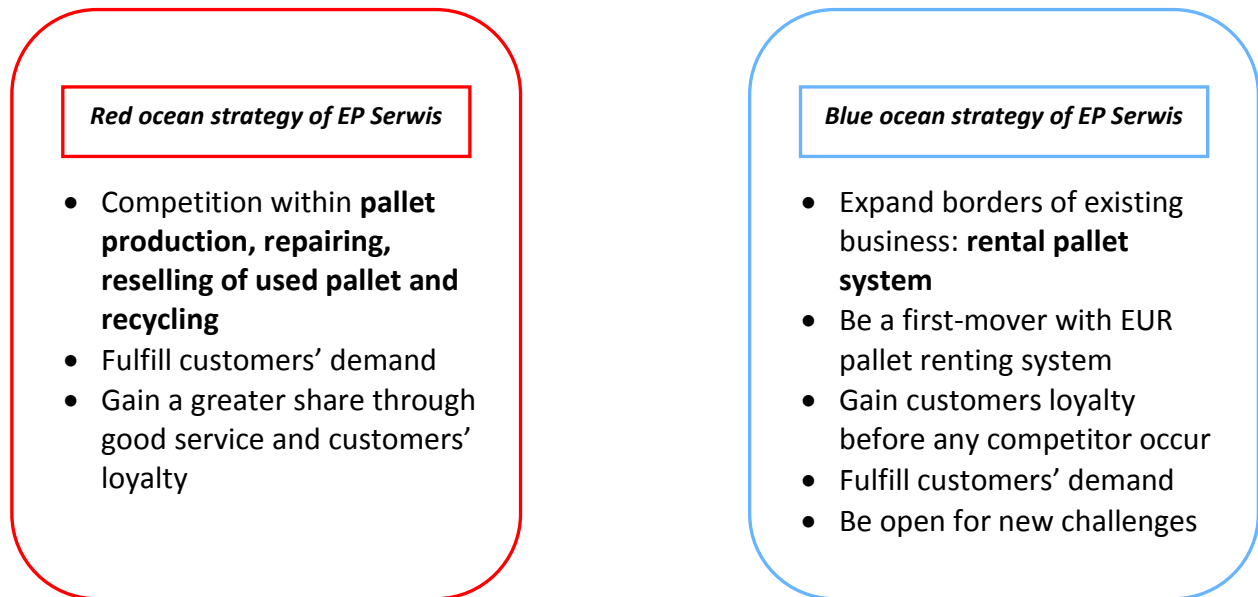
Source: Own creation based on the market information and Hitt, M.A., Ireland, R.D. & Hoskisson, R.E. „Strategic management: Competitiveness and Globalization”, p.58

However, current business of EP Serwis (production, repairing, reselling and recycling) has only average returns, it is important to perform **in this red ocean** and competing with other pallet companies, because it has a potential to develop, since some small pallet customers are not able to switch to the new offer. Consequently, EP Serwis should take care of their satisfaction and maintain the current offer for them. Moreover, it can take time before customers will notice advantages of renting pallet system. Nevertheless, **the blue ocean** strategy is a right way as competing for a share and for costumers' loyalty within existing business cannot be enough to maintain high performance.

Customers, who perform on the biggest scale, find pallets managing as a huge logistical operation that takes a lot of recourses and capabilities. Some of them admit that they are **interested in outsourcing** their activities to professional companies. We found that on the polish market there is no company, which offers rental system of the most common EuroPallets. There are a few companies that offer renting but only with their own pallets. Nevertheless, this offer is quite expensive and sometimes problems might occur since some retailer chains do not accept non-licensed pallets. Consequently, the attractiveness of such pallet systems is limited. According to conducted survey and trends in the global pallet market, EP Serwis identified a market gap for a **new system** to be launched in the near future. Nearly half of survey participants express their wish to join rental pallet system. Some of

respondents claim that they are even likely to pay more for complete service since it will help to focus on their core competences. Therefore, EP Serwis decided to meet this challenge and has taken first actions to **introduce rental pallet system**.

Figure 26 Red ocean vs. Blue ocean strategy of EP Serwis



Source: Own creation

Summing up, thanks to the Porter's model, we found that the wooden pallet sector is quite attractive although there are some challenges. The pallet market is in the phase of development with some potential to grow. We observed that EP Serwis has a stable position within the business and customers are rather satisfied with their offer. However some of them admit that they are interested in renting pallet system, since they prefer to outsource activities connected with pallet circulation. We found that EP Serwis has enough resources to implement a new strategy, where a new offer is the key element.

## 5.8 Sub-conclusion

Summing up, in this chapter we have conducted the analysis of pallets' customer perceived value and the process of the enhancement of EP Serwis's customer value by applying the framework presented in theoretical part.

In this section we revealed different types of pallets, namely, wooden, composite wood, metal, plastic and paper pallets. Each of these pallets represents different attributes and at the same time satisfies different customers' goals in use situation. EP Serwis, by selling only

wooden pallets significantly limit the number of attributes, which customers use to judge value of pallets. By applying Woodruff's customer value model EP Serwis's managers can get better understanding of customers' expectations and to improve customers' problems solving process.

All six suggested dimensions of Ulaga model were used to measure the level of value creation in EP Serwis' relationships. We revealed that company meets to a higher degree most of these dimensions. Nevertheless, it could be of great advantage for the company to conduct improvements especially within such areas as, quality delivery, service support consolidating customers' supply base and personal interactions. Moreover, matrix classifying supplier-customer relationships appeared to be a good tool to select important and valuable for EP Serwis relations.

We found that EP Serwis should always follow changes in information technology and, thus, thanks to the right information flow, the company is able to establish high quality customer service, where all doubts and problems can be solved immediately. Modifications in the information system help to maintain image of modern company, which cares about close contact with customers. Moreover, information systems are the foundation for the new offer of pallet renting system, where whole process can be monitored in the real time.

We observed that EP Serwis has a stable position within the business and customers are satisfied with its service. Nevertheless, they admitted that they have problems with coordination of pallet circulation and they are even likely to pay more for outsourcing. Consequently, we conclude that there is a high demand for pallet renting system and, thus, introducing such offer can **provide a great source of advantage**, help to increase **customer value** and **gain greater share** of the market. The analysis showed that EP Serwis has enough resources and experience to expand their business and enter "the blue ocean".

## 6 Conclusions

The purpose of the project was to analyse how EP Serwis can increase value for its customers. The research resulted in pointing out main issues, which can be the subject to the value enhancement in business-to-business environment, such as, strategic supply chain management, including at least three elements, namely, supply chain management, business relationships and information systems. This subject field, nowadays constantly captures attention of organisations in a quest of achieving competitive advantage.

Firstly, the research comprised of **in-depth analysis of concept of customer value**. This resulted in finding out that an understanding of value from the customer's point of view can be nowadays, a way to increase customer satisfaction and loyalty. We revealed that managers should understand customers' attribute-base key buying criteria, but also assess value at higher levels of abstraction, which are consequence and goal levels. Customer value hierarchy can be used by EP Serwis' managers to specify what they should learn about their customers. Thanks to this they will know where they should focus their attention in order to increase customer value delivery. By uncovering the pallets' customer value hierarchy, we conclude that because EP Serwis offer is narrowed only to wooden pallets, company cannot fully satisfy its customers' desired value.

We also conclude that there **is a need for continuous learning about customer value**, as its magnitude and the attributes that customers use to judge value can change over time. Companies cannot depend only on what they currently know about customer value, they have to anticipate what customers will value next, so that they will be ready to implement changes faster than competitors.

From the **analysis of EP Serwis's relationships**, we conclude that even though the overall assessment of benefits achieved through EP Service's relationships, is good, EP Serwis can still improve some areas of its operation. Company is generating value to its customers mainly through very good delivery performance and service support. Nevertheless, **improvements in such areas as quality of pallets, information in real time and creating value through**

**consolidating customers' supply chain base**, can significantly affect EP Serwis's value creation through relationships.

While conducting **analysis of business relationships**, we found that customers need no longer be mere passive recipients of value propositions offered by companies<sup>109</sup>. Now, they should be involved in the process of co-creating value. The efficient communication process and interactions between customers and companies' employees can lead to the successful customer involvement. That is why the further analysis has been performed to examine kinds of relationships entered and maintained by EP Serwis. We investigated that most of **EP Serwis's relationships are mostly selling-buying relations**, there are only a few customers with which company has a closer cooperation. **Company is not involved in collaborative relationships**, which have a strong impact on value creation. Moreover, **EP Serwis's salespeople interpersonal skills are not well developed**. We conclude that **EP Serwis did not switch yet toward customer-based relational performance**, which could ensure continuous learning about customer value and thanks to this positively affect company's value creation process.

We also found that customers' needs and requirement are changing constantly. Thus, the business offer, which previously fulfilled demand successfully, cannot longer be effective in the future. Consequently, through mentioned collaborative relationships with customers, EP Serwis should follow new trends, be more elastic for changes and understand customers' needs. We researched that **business-to-business relations are not easy** to run because there are more factors affecting such cooperation than in business-to-consumer relations.

We conclude that the best way to build beneficial relations is establishment of an effective **supply chain management**, where each link will gain from the cooperation. In the supply chain management, companies can receive mutual goals and therefore all members are willing to keep partnership rather than take advantage on the other echelons. The supply chain is a **value creating network** which consists of different players of the market. Although companies might use different designs of the supply chain, they could bear fruits. Good supply chain management prevents companies from unexpected changes on the market. A

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<sup>109</sup> Ramaswamy, V., „Co-creating value through customers' experiences: the Nike case”, (2008), p.9

main issue in supply chain management is trying to build up a strategy that is compatible with the overall company's strategy and mission in order to run effectively.

We found that communication between members is an important issue in supply chain. The way of managing information has changed over the years and some of tools were inappropriate for today business life. Therefore, the company implemented new solutions to meet market expectations. We researched that EP Serwis is now in the phase of implementation of RFID system which will help to monitor pallet circulation within renting system.

We conclude that the pallet market and offer within is **quite similar** for all players. Therefore, even small **differentiation** like product or service quality or reputation **can provide a great source of advantage**. The offer that is having an important effect on the customers' value creation is always in a position to benefit the company.<sup>110</sup> Therefore, it is for all time a good idea to look for innovations to gain a pose of a first-mover than waiting for competitors to move in. EP Serwis is now on a good way to gain a greater share of the market since they revised their strategy and decided to cross the borders of the present business and introduce a **pallet renting system**. Consequently, the company fulfils their vision and mission strategic assumptions, where being a leader within pallet service and benefiting customers and value creation are always on their mind. According to the conducted survey and market analysis, we found that **customers are very likely to switch from current solution to the renting cycle**. They admitted that such offer would solve their problem with pallet management and be more cost effective. We also found that important manufactures and wholesalers insisted on implementation of the renting pallet system and some of them even offer their help. Therefore, we assume that, if all turbulences will be crossed, a new solution can become a great success and consequently benefit all committed companies.

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<sup>110</sup> Best, R.J., *“Market-Based Management. Strategies for growing customer value and profitability”*, Pearson Prentice Hall, (2005), p. 193



## 7 Recommendations

This section will provide some recommendations on how EP Serwis can increase its customers' value, looking from strategic supply chain management perspective.

As mentioned earlier **EP Serwis can improve several areas of its operation to enhance its customers' desired value**, looking at attribute, consequence and goal layer of value hierarchy. As customers are exposed to many attributes, they require from their suppliers to offer pallets which will satisfy more and more of their goals. That is why, EP Serwis should extend its assortment of other products, which can be used together with pallets. It can be interesting to introduce **pallets collars or tops**, which can be designed according to customers' requirements. This solution will significantly **refresh a current business** of EP Serwis (production, repairing, reselling and recycling).

Furthermore, it can be of great benefit to EP Serwis to open "**Engineering and Innovation Centre**", where pallets and boxes or other packaging products can be designed and tested. It is important for EP Serwis to show that company cares of continuous improvement of its new and existing products.

EP should also establish more **collaborative relations** with its customers, so that value could be jointly created through co-creative interactions. Moreover, company should **develop internal, organisation-wide knowledge process**, which could assist company in **learning about customers**. Managers can learn about customers through:

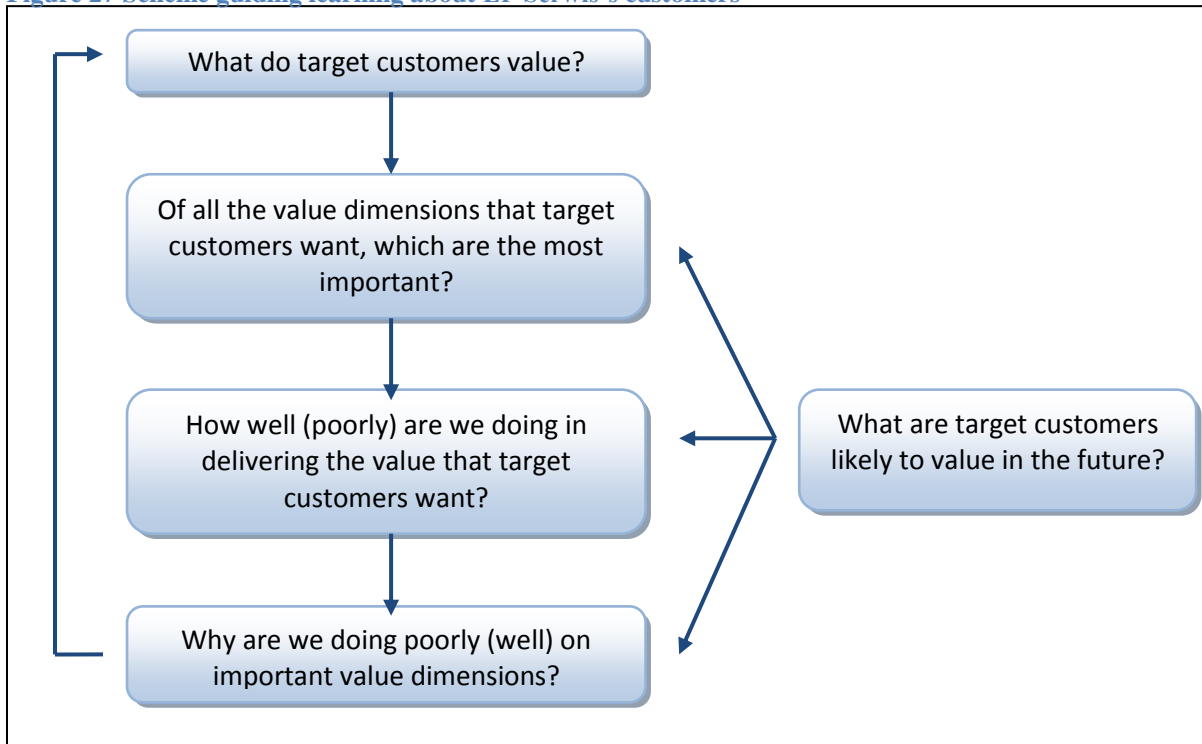
- **informal learning**- which contains such sources as manager personal observations of customers, feedback from salespersons and trial-and-error experiences with past decisions directed toward customers.
- **research learning**- which includes all the various market and customer research methods, such as surveys and qualitative research<sup>111</sup>.

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<sup>111</sup> Woodruff, R. B., „*Customer Value: The Next Source for Competitive Advantage*”, (1997), p.143

Typically, customer satisfaction measurements are good for uncovering how customers evaluate a seller’s weaknesses and strengths in delivering value, but they do not provide the insight into reasons for high or low satisfaction scores. Therefore they should be incorporated with a wider customer value and satisfaction learning process. Managers should set up critical questions, which should guide learning about their customers (figure 27).

Figure 27 Scheme guiding learning about EP Serwis’s customers



Source: Woodruff, R. B., „Customer Value: The Next Source for Competitive Advantage”, (1997), p.144

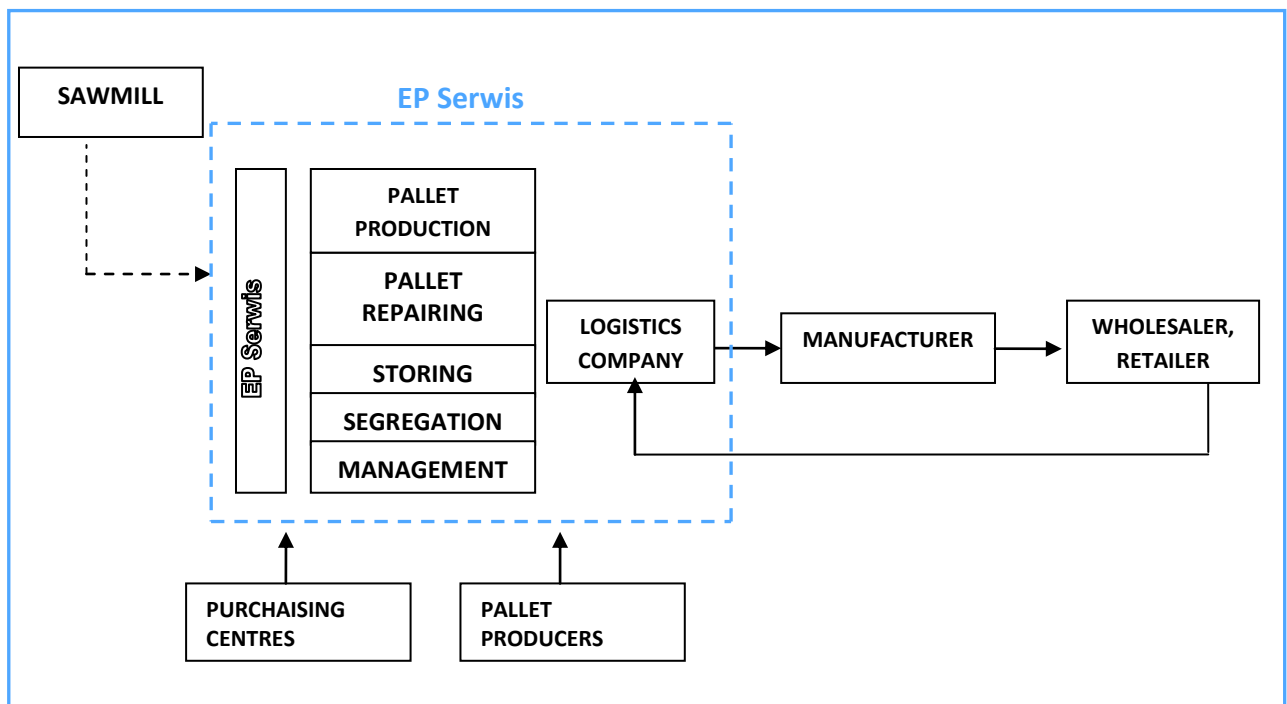
Thanks applying this scheme, EP Serwis can identify important opportunities to improve the way that managers can learn about their customer present and future value.

In order to achieve success in the process of sharing and learning about customers, it is recommended that **EP Serwis should implement changes in the way of management of its relationships**. The high-performing relationships themselves and their management become more complex than simple selling relationships. In order to exploit these relationships and show competences in several areas, such as selling of existing products and developing new ones, a lot of different inputs are needed. Moreover, different EP Serwis’s departments and functions will have to cooperate with high-potential customers. It seems that salespeople might be simply overcharged to handle this kind of relations. Therefore, it is suggested that a

**cross-functional team**, composed of personnel out of different departments should be involved in handling EP Serwis’s high-performing relationships.

Finally, we examined and evaluated that the **rental pallet system** is the best way for EP Serwis to **increase customers’ satisfaction and value**. Thus, the company will expand current borders, which create a chance for gaining greater share. Nevertheless, it could be difficult to introduce a new offer since it is a huge challenge for the local company. Therefore, we prepared a recommendation scheme (figure 28) of the value chain, which combines all activities. EP Serwis is in the centre of the process, where, besides current business, pallet rental service occurs in their portfolio. EP Serwis has to cooperate with the logistics company which delivers the pallets to the manufacturing company. **Participation of the logistics company is the key element of success**. Next, customers use pallets to transport goods to the wholesaler or the retailer. Then, the logistics company collects all the pallets from the final destination and transport them to EP Serwis, which select them and repair the broken ones. Unfortunately, in that solution EP Serwis is dependent on the logistics company, thus, it is recommended **to take over** such firm and employ its resources to EP Serwis.

Figure 28 Market map of EP Serwis rental system



Source: Own creation

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EP Serwis

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GUS Poland

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## 9 Appendix

### Survey for pallets buyers (translation)

Dear Sir or Madame!

We are in a process of preparing a new product. Your comments and opinions will help us meet your requirements. We would like to ask you to answer the following questions.

#### **1. Within which industry does your company operate?**

Building industry 0%

Food industry 71%

Chemical industry 0%

Wood- paper industry 29%

Other: ..... 0%

#### **2. How often do you order new/used pallets in your company?**

More rarely than once per month 0%

2-3 times per month 42%

4 and more times per month

#### **3. How many pallets do you order (monthly)?**

..... (number)

#### **4. Which kind of pallets are used in your company?**

Wooden pallets EURO 72%

Wooden pallets, so called disposable 43%

Plastic pallets 15%

Metal pallets 0%

Compound pallets 0%

Others:..... 0%

#### **5. Does your company...?**

resell pallets together with the products 15%

pallets are given back to my company 42%

part of the pallets are sold and part returned to my company 43%

**6 . Do you repair broken pallets?**

Always 43%

Sometimes 52%

Never 0%

**8. Have you ever calculate the exact cost of pallet management in your company? (i.e. pallet price, transportation, repairing, recycling)**

Yes 58%

No 42%

**9. What kind of cost categories do you calculate in pallet management in your company?**

|  | Percent |
|--|---------|
| Transportation                           | 100%    |
| Segregation                              | 75%     |
| Storage                                  | 25%     |
| Reparation                               | 75%     |
| Product Fees                             | 0%      |
| Recycling Fees                           | 0%      |
| Workers Salary (responsible for pallets) | 75%     |
| Pallet Cost                              | 100%    |

Other.....0%

**10. Have you ever heard about systems of renting pallets by companies, which specialize in this field?**

Yes 100%

No 0%

**11. Which systems of renting pallets do you know?**

.....  
 EURPPAL - TRANSFER PALET, CHEP, PAKI LOGISTICS, UNIWERPAL, LOGIPAL

**12. Would you be interested in joining the system of renting pallets?**

Definitely Yes 29%

Rather Yes 15%

I do not know 43%

Rather Not 15%

Definitely Not 0%

**13. Please define how important for you are the following statements, when you are buying pallets.**

|   | None | Low | Average | High | Very high |
|---|------|-----|---------|------|-----------|
| Punctuality (delivery pallets on time)                                    |      |     |         |      | 4.71      |
| Short time of realization of the order                                    |      |     |         |      | 4.71      |
| Flexibility of the delivery   |      |     |         |      | 4.43      |
| Quality of the pallets  |      |     |         |      | 4.86      |
| Price of the pallets  |      |     |         |      | 5.00      |
| Good reputation of the partner  |      |     |         |      | 4.71      |
| Flexibility of the offer  |      |     |         |      | 4.00      |
| Wide range of products  |      |     |         |      | 4.29      |
| Guarantee on pallets  |      |     |         |      | 4.57      |
| The customer information  |      |     |         |      | 4.71      |
| The possibility to outsourcing some activities to supplier of the pallets |      |     |         |      | 4.86      |

|                                     |  |  |  |  |      |
|-------------------------------------|--|--|--|--|------|
| Access to supplier's know-how       |  |  |  |  | 4.43 |
| Possibility of recycling of pallets |  |  |  |  | 4.29 |

*Open questions:*

**14. Which problems related with pallets did you face in your company?**

.....

**15. How can we help you with solving your problems related with pallets?**

.....

Thank you very much for participation in our survey.

## **Interview script (fragment, free translation)**

.....  
**Do you put much attention to maintain relationships with your customers?**

On the B2B market number of the potential customers is relatively small. Thus, maintaining relations is one of the most important things for EP Serwis.

**What do you do to keep your customers? (Please describe)?**

To keep customers, EP Serwis tries to provide the best service on the market. Jointly with company slogan "Zawsze na czas" - "Always on the time" company guarantees continuity of service and deliver.

Always when pallet market price changes more than few percent EP Serwis or they customers can start to renegotiate the contract price. That gives both sides guarantee of good price.

Two times a year company conducts questionnaire to the customers to gather their opinions about service and products. This helps to improve EP Serwis performance; avoid with mistakes; make service more friendly and more valuable for costumers.

Next thing that is appreciated by customers is a long payment deadline (approx. 2 weeks).

Extension of company's service and product.

Marketing activities as invitations to the company, presence on the fairs, brochures of the company service, outdoor ads etc.

**Do you count on getting something more than only regular purchases from your customers? Do you treat your customers also as a source of information or as a business partner with who you could develop product and process innovations?**

Company asks for the potential customers opinions, suggestions, but they do not discuss together new concept of the products. Development of the new and existing product is only in charge of EP Serwis.

EP serwis uses customers as a source of information to improve service and products.

**In which areas do you cooperate with your customers?**

- Pallet Sales,
- Pallet Repairing service,
- Open Pallet Pool,
- Information source for EP Serwis,
- Opinion source for EP Serwis,
- If company receive question about pallets, service for surely they will answer on it,

**Could you approximately divide your customers on categories:**

**a. How many new customers do you have?**

Few - in this month I know about two big ones Sokołów & Bella + maybe smaller ones

**b. How many of them buy only from time to time and you do not have close cooperation with them?**

Marginal number, mostly small companies and pallets purchasing centers.

**c. How many of them buy regularly but you do not cooperate with them in other areas?**

Many, Ep Serwis is open for their opinions but they are not interested in close cooperation.

Pallet is a standard product, each producer offers same pallets and in most cases companies don't want to maintain close relations with pallets producers. This situation gives them comfort of switching pallet source without giving any reason.

From the other hand, EP Serwis always tries to establish close relations with customers. For instance one company can realize that EP Serwis competitor gives better price. Then, EP Serwis can react.

**d. With how many customers do you have close cooperation but they buy only from time to time?**

Few

**e. How many customers buy regularly and you have close cooperation in other business areas?**

Few

**6. Who in your company is responsible for sales activities?**

We have five main regions and we have one sales representative in each of them. That solution helps for better sales management and understanding o customers' needs. This modification opened EP Serwis for their customers and helped in communication with environment. Thus, EP Serwis changed typical business relations in more personal ones.

Besides in Kozenice there is a headquarters, which is responsible for offer preparation for the potential customers and helps sales representatives in their job.

**a. Do you have any sales representatives in your office in Kozenice?**

5 sales representatives in regions  
3 in the office

**7. How does sales process look and after sales service in your company?**

Pallet sales:

- Offer to the potential customers;
- Response of interested companies;

- Negotiation phase (price, number of pallets, service, payment time, product quality etc.);
- Agreement;
- Pallets Sales, delivery to the customer,
- Invoice;
- Complaints and after service.

Pallet Repairing:

- Offer to the potential customers;
- Response of interested companies;
- Negotiation;
- Agreement;
- Pallets delivery to EP Serwis,
- Pallet Segregation: good/defective to repair or utilization (if more than 7 broken pieces),
- Repairing of broken ones,
- Transportation of good and repair pallets. EP Serwis pays for the utilized pallets;
- Invoice,
- Complaints and after service.

Pallet rental:

- Offer to the potential customers;
- Response of interested companies;
- Negotiation;
- Agreement;
- Pallets delivery to the customer and their circulation (wholesaler, retailer);
- Pallets delivery to EP Serwis,
- Pallet Segregation: good/defective to repair or utilization;
- Repairing of broken ones,
- Invoice.

**8. How do you manage relationships with your customers?**

Relationships with customers are managed by sales persons. In case huge customers, it is responsibility of EP Serwis owners to deal with them.

**9. What differs you from other pallets suppliers?**

- Company size that allowed dealing with huge orders,
  - Always on time service,
  - Location near the biggest polish market,
  - Fast realization time,
  - High Service Quality,
  - Broad wood pallets product range,
  - Company reputation,
- .....