

# **Global Price Management**

- Incentives for Implementing an IT-based Price Management System

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## Abstract

**Title:** Global Price Management – Incentives for Implementing an IT-based Price Management System

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**Problem discussion:** Synchron experience a challenge in realizing the full market potential of its newly developed IT-based price management system, Global Price Management (GPM). The system has already been implemented and is currently running with success within the IT-structures of the first customer. The fact that the development of the system has been initiated by a customer, and thereby has left Synchron oblivious of the real underlying drivers and incentives for the development, is part of the problem.

Understanding the customers' incentives for developing their pricing process thus reducing the application uncertainty is a good starting point. A multifaceted picture of the incentives for an IT-based price management system will contribute to a description of what constitutes good price management in the interaction with IT. This is something sparsely discussed in existing literature, which is another part of the problem.

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- Purpose:** The purpose of this master thesis is to map and analyze the incentives for an IT-based price management system, and to discuss how these incentives could be used by sales representatives.
- Methodology:** The system approach was considered to best harmonize with the three constituents of the research process of this master thesis. The research strategy chosen was a multiple case study. The three case companies are all in different stages of their price management development process. The primary data has been gathered through in-depth interviews thus generating qualitative answers.
- Results:** The result of this master thesis is a map of the incentives for IT-based price management. Each incentive has been appointed to one of the three levels; strategic, tactical or operational level. The precision of the map is enhanced by the division of the incentives into needs and arguments.

	Needs	Arguments
<b>Strategic level</b>	Centralizing Integration	Holistic fit Process control One company Profit maximization
<b>Tactical level</b>	Pricing logics support Sources of value	Strategic pricing
<b>Operational level</b>	Precision Feedback	Negotiations

The results also contribute to the general body of knowledge regarding the use of IT-based systems in price management. An important part of the results is thus the presentation of a theoretical framework which combines price and organizational issues with IT.

Furthermore, since the IT-system is based on a Service-Oriented Architecture (SOA), it contributes to, and complements the somewhat insufficient contemporary evidence of this architecture. The usefulness of the GPM solution has been shown and thus also the usefulness of SOA.

- Keywords:** Price Management, Service-Oriented Architecture, Enterprise Service Bus, Information Technology.

## Preface

With this master thesis we are finishing our years as students at Lund University and we would like to take this opportunity to thank the people who have made this last step possible.

We want to thank the project initiators and advisors at Synchron, Klas Westling and Carl-Johan Andersson, who has kept us on track and answered our questions along the way. We would also like to express our gratitude to our university advisors, Ingela Elofsson and Per Magnus Andersson, who have been giving us much needed advice and constructive criticism. Furthermore we would like to thank the personnel at Volvo CE, Dynapac and Alfa Laval, who have been willing to take part in our interviews.

Lund, May 2006

Christopher Blidberg  
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# 1 Introduction

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*This chapter aims to introduce the rudimentary basics of this master thesis including a background of the essentials of price management and a brief presentation of Syncron's Global Price Management solution. The research problem is carefully discussed and then the purpose is defined. The chapter ends with a disposition.*

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## 1.1 A background to price management

### 1.1.1 The price advantage

*"To determine cost is a science, to set prices is an art"*<sup>1</sup>. This quotation expresses the complexity adhering to price management and is easily illustrated by the fact that the meaning of the word price differs depending on the beholder. The economists will see price as the intersection between supply and demand. Their focus will stay on the overall industry level. On the contrary, the marketers will focus on a customer level and how customers weigh the benefits of one offering in comparison with another. Their concern is to get the most out of this difference. If their own offering is superior they have to determine the appropriate price premium and if the opposite is true, they either have to calculate an appropriate discount or improve the offering to justify the price charged. The third view of pricing is the perspective of the sales representatives. Their concern is usually to get the optimal price for each specific transaction. This involves negotiations about topics such as discounts, invoicing price, terms and conditions.<sup>2</sup>

All companies want to gain a competitive advantage. The advantage could be associated to technology, innovation, distribution, brand name or other related areas. One possibility, seldom pursued, is to gain a price advantage. Striving for excellence in price management, through developing the ability to maneuver the price lever is most certainly worthwhile extensive efforts. This is partly true due to the close relationship between price and operating profit. A single one percent price increase, assuming a constant cost structure and no change in sales volume can result in a double digit improvement of the relative operating profit<sup>3</sup>.

### 1.1.2 Globalization of the supply chain

As the world is getting more accessible, borders, both physical and legal, are gradually eroded. This affects our private life as well as the business environment, which thus is getting more global every day. Today's modern corporations are able to search for the most suitable suppliers and customers all over the world. This has resulted in businesses getting organized in supply chain networks where the

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<sup>1</sup> Lecture with Carl-Henric Nilsson, 2006-01-27

<sup>2</sup> Marn et al (2004) p. 14

<sup>3</sup> Ibid, pp. 4-5

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participating companies can focus on the specific area where they have a competitive advantage and/or can reach economies of scale. The result is a fierce competition on a global scale, which adds to the price pressure in the business environment. This price pressure is further motive for developing the price management process<sup>4</sup>.

Coping with the increased competition has led to an outsourcing trend in search of cost reductions. Companies are allocating their most cost intensive parts of their business to low-cost locations. This further adds to the price pressure since, if the costs are constantly reduced the justification of the price levels could be lost in the eyes of the customers. Outsourcing has definitely increased the complexity of the geographical perspective of the organizational structure. As companies are being more and more scattered around the world, the supply chains in which they get entangled also increase in complexity.

Although companies are becoming part of a complex supply chain, they still must appear as a single company in the eye of the customer. An essential part of this process is to keep a stringent pricing model all across the supply chain. The complexity of the price management process is essentially the same as all the other issues that have to be addressed when a company is getting more and more embedded in a network. None of the above stated issues would be a problem if the supply chain only consisted of, for example two participants.

### 1.1.3 The role of information technology

The globalization of the business environment has to a large extent been enabled and simplified by the use of information technology. The practical implication of this technology is that corporations are able to send and receive information instantaneously and to communicate regardless of geographical constraints. As the number of possibilities, interactions and processes that a company has to evaluate and administer grows, the demand for accuracy is accentuated. This is something that information technology can provide.

To manage the increased level of complexity, companies in both national and international contexts are implementing IT-based Electronic Resource Planning systems (ERP-systems). However, the one thing constant about supply chain networks is that their composition constantly will change<sup>5</sup>. As companies grow, organically or through acquisitions, or as they simply have to connect to a new member of the supply chain, the number of ERP-systems quickly increases and their interactions become increasingly complex and expensive to administer and overview. As a response to this, the ERP-system providers are often recommending that all companies within the supply chain should implement their specific system. This is virtually the case regardless of which management process the system aims to support, including price management. Projects to implement general ERP-systems are

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<sup>4</sup> Marn et al (2004) p. 9

<sup>5</sup> Interview with Leif Ottosson, 2006-01-24

known to last for years and to break budget constraints. In numerous cases these projects have never even reached the stated objectives.<sup>6</sup>

The Malmö based company Synchron International AB offers an alternate solution to investing in a general ERP-system for the entire supply chain network. Instead of replacing all IT-systems to a predetermined standard, Synchron's solution can integrate already existing systems in the network.

## **1.2 A company presentation of Synchron International AB**

### **1.2.1 A brief historical perspective**

In the late nineties there was a general trend in the utilization of information technology. Multinational manufacturing companies, in trying to reach economies of scale, were replacing a variety of IT-systems in favor of one single prevailing system. Anders Ottosson was at the time working with IT-strategic issues and he recognized that there had to be an easier and less expensive way. As a result, he developed a new idea differing from the general trend. The idea was to enable IT-systems integration instead of replacement.<sup>7</sup>

Taking the idea into action, Mr. Ottosson founded eTekram in the fall of 1999. At the end of the year 2000, the company changed its name to Sync BPI AB. Thereby better signaling its offering as the three capital letters represented Business Process Integration.<sup>8</sup>

Sync BPI AB was specialized in handling the administrative process of order management and attracted customers in numerous locations within as well as outside Europe. Another company named Synchron had specialized in automating the process of planning and prediction of supply and demand. The companies had matching profiles and complemented each other's offerings. Synergies could easily be identified and as a result, Sync BPI AB acquired Synchron in December of 2004.<sup>9</sup> From this point, the company is known as Synchron International AB, hereafter referred to as Synchron. A typical customer of Synchron is a large multinational manufacturing or distribution company<sup>10</sup>. A selection of its customers is Metso Minerals, Atlas Copco and Trelleborg. Today the annual turnover is about 100 MSEK and it has about 80 co-workers, mostly logistic and computer engineers but also marketing and administrative personnel<sup>11</sup>.

### **1.2.2 The Synchron solutions**

To create an effective organization, coordination is essential. In turn, coordination requires communication skills. This is as true for any inter-personal communication

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<sup>6</sup> Birgersson et al (2004) p. 7

<sup>7</sup> Ibid, p. 10

<sup>8</sup> Ibid

<sup>9</sup> Interview with Klas Westling, 2006-02-13

<sup>10</sup> Interview with Carsten Weber, 2006-02-17

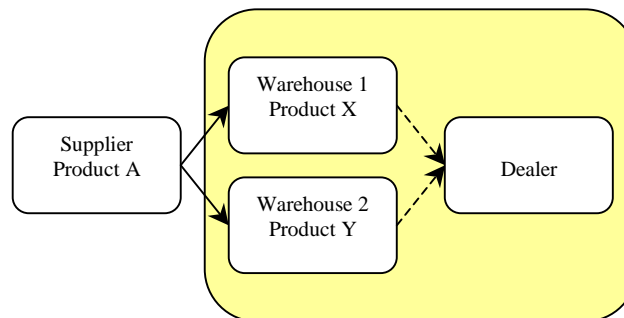
<sup>11</sup> www.synchron.com, 2006-02-13

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as for any inter-system communication. The difference lies within the accuracy of the language. The languages of IT-systems are much more precise than the language of humans. Since there is no room for human interpretation between the systems, they must use well-defined standards of communication.

The existence of language differences between systems is no stranger than that there are language differences between countries. Thus, in order to enable communication and coordination, the first problem that needs to be solved is to introduce a common language. If changing all languages to one agreed standard is too cost and time consuming, one possibility is translation between systems. This is one of the functions of the Synchron solutions – they translate and communicate all information within a supply chain.

Imagine a supply chain with one supplier and a company including two warehouses and one dealer as illustrated in Figure 1-1. The supplier is manufacturing the *Product A*, but the systems of *Warehouse 1* is labeling it *Product X* while the systems of *Warehouse 2* is labeling it *Product Y*. At this point the situation in itself is not problematic. The problem first arises when the dealer wants information about *Product A* from the two warehouses. An additional communication problem is that the product, within the dealer's systems, could have another label. Instead of the graphical illustration, the situation could be described by a table, see Table 1-1.<sup>12</sup>



**Figure 1-1:** Graphical illustration of a product name in a supply chain.

Suppliers	Products	Customers	Labels
Supplier	Product A	Warehouse 1	Product X
Supplier	Product A	Warehouse 2	Product Y

**Table 1-1:** Table view of a product name in a supply chain.

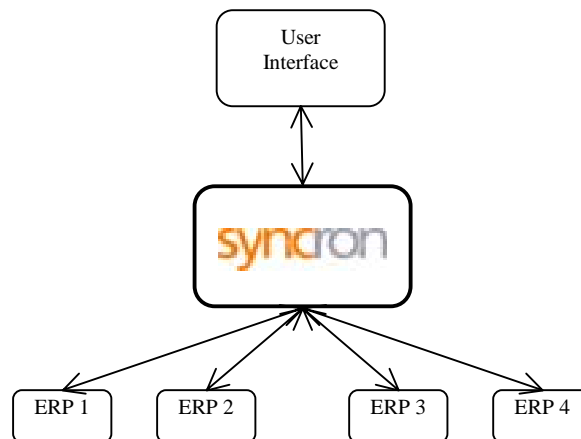
By cross-referencing the data, the Synchron solutions are translating the information, in this case the product names. Besides differences in the contents of the table, differences may also exist in the table category names. Thus cross-references or translations of the names of the table categories are also enabled.<sup>13</sup>

<sup>12</sup> Interview with Anders Zederfeldt, 2006-03-15

<sup>13</sup> Ibid

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The Synchron solution communicates with the participating ERP-systems, orchestrating the business processes, constantly gathering, translating and transferring information between them. The user of the software interacts with a single interface, being spared the activities performed behind the scenes. A schematic overview of this solution concept can be studied in Figure 1-2.<sup>14</sup>



**Figure 1-2:** Schematic overview of Synchron's solution<sup>15</sup>.

The data that Synchron translates and communicates with the ERP-systems is called *Master Data*. The internal communication, within the IT-systems of a company in the supply chain, is not altered but when communicating externally the information is translated into *Master Data* before forwarded in another translation form to the target system by using the principle of cross-referencing tables. The *Master Data* do not only consist of product name information as illustrated in Table 1-1. The three other categories are customers, suppliers, and price related data. They may all contain cost structures, delivery and warehouse status, historical information and estimates of future supply and demand levels.<sup>16</sup>

Language skills are seldom useful without something to communicate. This is also true for the *Master Data*. The implementation of *Master Data* is thus only a prerequisite or enabler for the Synchron solutions in supporting different main processes in the customer companies. The three main processes supported by the Synchron solutions are *Supply Chain Planning*, *Global Order Management* and *Global Supply Management*. Other support elements besides *Master Data* are *Performance Measurement & Monitoring*, *Business Process Management* and *Integration*. All main processes supported, and their support elements can be studied in Figure 1-3. *Performance Measurement & Monitoring* allows observations of order history and trends, purchase statistics, process performance monitoring and key performance indexes such as supplier performance, service levels and sales. In *Business Process Management* the logic of the connections between the different layers of the actual

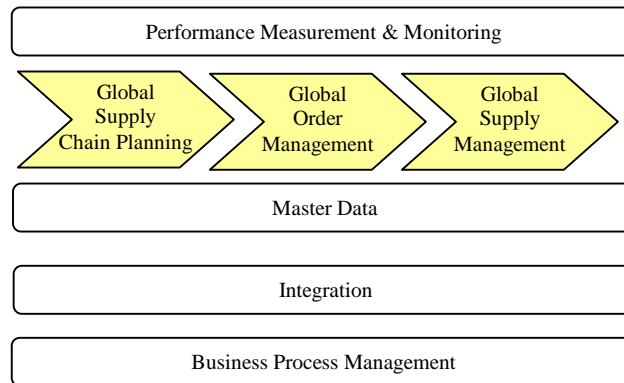
<sup>14</sup> Interview with Carsten Weber, 2006-02-17

<sup>15</sup> Ibid

<sup>16</sup> Interview with Klas Westling, 2006-01-11

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software application are stated, thereby making changes in the application directly executable. The last of the support elements is *Integration*. It includes support for the actual integration between different technical standards.<sup>17</sup>



**Figure 1-3:** The main processes and their support elements supported by Synchron's solutions<sup>18</sup>.

The *Global Supply Chain Planning* process is assisted by advanced demand planning algorithms to obtain full visibility and to optimize the replenishment control. The *Global Order Management* and *Global Supply Management* are accessed through a single order entry point. It is assisted by intelligent sourcing decisions to manage a resource saving approach in supply control. A global supply chain and inventory visibility is made possible and the software facilitates better global supplier and customer management.<sup>19</sup>

All of the Synchron solutions influence the processes of supply chain management. Synchron aims to develop process-centric software that provides synergies within, as well as between companies. In line with the idea of Mr. Ottosson, Synchron's solutions operate independently of the customer's underlying IT infrastructure and ERP-systems and can be integrated with all the available systems on the market. Indifferently of which of the three main processes that is to be supported by a Synchron solution, the software application will act as a middle layer between the different ERP-systems as well as to the interfaces for the actual users of the systems as illustrated in Figure 1-2.<sup>20</sup>

### 1.2.3 Synchron and price management

The activities supported by the Synchron solutions in supply chain management are closely connected to price issues since the order management process must have access to price information. As implied in the background, price management is more complex than just distributing a pricelist. Volvo Construction Equipment made an

<sup>17</sup> Interview with Carsten Weber, 2006-02-17

<sup>18</sup> Ibid

<sup>19</sup> Ibid

<sup>20</sup> www.synchron.com, 2006-02-13



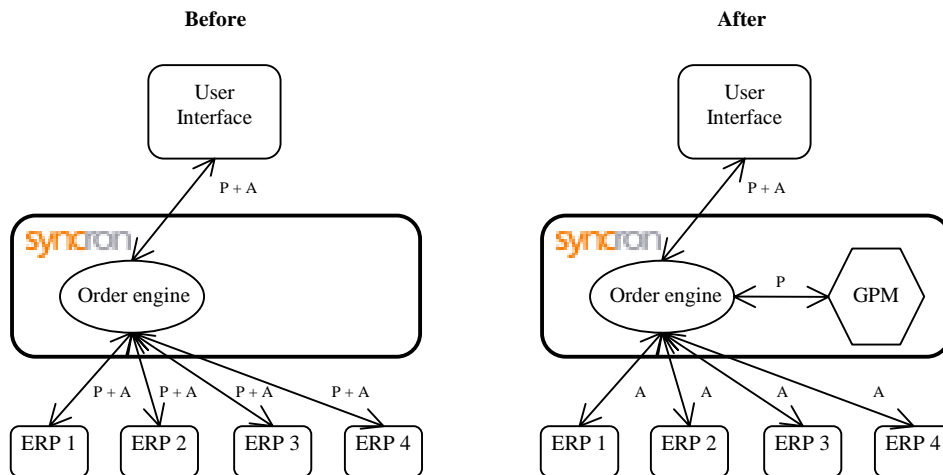
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inquiry to Synchron in 2004, asking if Synchron could support its price management process<sup>21</sup>. None of the, at the time existing solutions in the Synchron portfolio could fulfill this request. However, believing that they had all the essential software components, a new project was initiated. In the autumn of 2004 Synchron was selected supplier of the Global Parts Pricing System (GPPS), a project based on the Synchron Global Price Management (GPM) solution. During 2005 the GPPS software was adopted and further enhanced based on Volvo Construction Equipment's requirements.

The GPM follows the schematic overview of the Synchron solution concept, where it acts as a middle layer in the processes. Before introducing the middle layer, communication with the back-end layer, i.e. the different ERP-systems, had to be done directly, resulting in numerous information routes and formats. Further complicating the communication is the fact that about 50 percent of the ERP-systems are linked to front-end web applications or *user interfaces*.<sup>22</sup>

When introducing the Synchron solution, ERP-systems are able to send and receive information about price and availability of an order through the *order engine* at Synchron. This information is translated and transferred to the desired recipient.

When including a GPM module, price information is orchestrated to ensure that the different ERP-systems are provided with the correct information to support price management. The price information no longer needs to pass through the different ERP-systems and can instead be calculated, stored and distributed by the GPM module. An illustration of the communication routes before and after an introduction of the GPM can be studied in Figure 1-4.



**Figure 1-4:** Before and after the introduction of a GPM module as a middle layer between the different ERP-systems and the user interface. Price information ( $P$ ) and Availability Information ( $A$ ).

<sup>21</sup> Interview with Anders Åkerlund, 2006-02-20

<sup>22</sup> Interview with Klas Westling, 2006-03-06

### 1.3 Problem discussion and research questions

Syncron experience a challenge in realizing the full market potential of its newly developed IT-based price management system, the GPM. The system has already been implemented and is currently running with success within the IT-structures of the first customer, Volvo Construction Equipment. The importance of managing the pricing process seems to be increasing within the manufacturing industry of today, even to the point that it could be called a trend. Wherever Syncron sales representatives discuss price management, many companies show great interest.<sup>23</sup>

The fact that the development of the system has been initiated by a customer, and thereby has left Syncron oblivious of the real underlying drivers and incentives for the development, is part of the problem. With a satisfied customer and a proven effect of the system it is, at a first glance, difficult to identify the experienced problems. This lack of understanding makes it hard for Syncron to identify and enhance what the potential customers actually appreciate and value and what the incentives for an IT-based price management system are. Identifying these incentives could improve the sales representatives bargaining ability as well as help in identifying potential product development guidelines.<sup>24</sup> The overall application uncertainties about the GPM solution are high since there are many uncertainties about how the offering can be most effectively used by the customers<sup>25</sup>.

Another part of the problem is that Syncron is in need of being able to understand and control the transaction uncertainties of potential customers. These uncertainties can be described as when the customers might be sure about the solution they seek, and which suppliers that can provide it, but might still be uncertain whether the supplier will be able to fulfill the offering or not.<sup>26</sup> In line with this reasoning, it is quite difficult for a small or medium sized company, such as Syncron, to reach the status of an IT-system's supplier to a large sized manufacturing company. These companies often have highly defined guidelines that suppliers need to meet to even be considered a potential supplier.<sup>27</sup> A further complicating circumstance is that the manufacturing companies often have long-existing relationships with large IT-system's suppliers. The fact that it is hard to quantify the result of an IT-system implementation is not helping Syncron either.

What is then Syncron to do, to realize the experienced, inherent market potential of its price management system? Understanding its customers' incentives for developing their pricing process thus reducing the application uncertainty is a good starting point. In doing this, it is not merely enough to understand the technical operations of the pricing process, like adding percentages to cost estimates or to show various graphs. It is not even enough to know the technical specifications that have to be met for the

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<sup>23</sup> Interview with Klas Westling, 2006-02-23

<sup>24</sup> Ibid

<sup>25</sup> Ford et al (2001) p. 25

<sup>26</sup> Ibid, p. 22

<sup>27</sup> Interview with Jonas Rönnebratt, 2006-02-20

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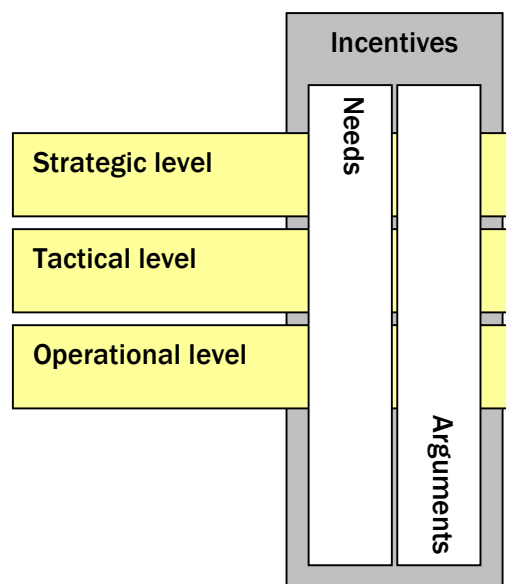
GPM solution to be compliant with the existing IT-systems. The incentives for an IT-based price management solution have to be identified in a wider perspective, both empirically and theoretically, in order to understand the full potential of the solution.

To be able to make a more accurate identification of the incentives, they are hereby divided into needs and arguments. Needs are referred to as the actual problems that have to be solved and dealt with by the system in contrast to arguments that rather represent what could drive the decision to invest in an IT-based system.

The incentives will also be divided into three categories in another dimension. This since pricing is a cross-functional and cross-organizational activity. The division enhances the precision of the identified incentives, which thereby increases the usefulness of the results. The chosen subdivision is strategic, tactical and operational level.

Decisions made at the strategic level can have far-reaching consequences, while the decisions at the tactical level typically are made on a one to two year basis. The time span of the operational decisions is however no more than a year. In relation to price, the strategic level is most closely linked to the overall pricing policies while the tactical level mostly is about setting list prices. The operational level, on the other hand, is about setting the specific transaction price related to each specific sale.

The two dimensions can be used to create a two by three matrix of the incentives for an IT-based price management system, as illustrated in Figure 1-5.



**Figure 1-5:** *The incentive matrix for an IT-based price management system.*

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The different incentives can be analyzed in detail for each field of the matrix in Figure 1-5:

At a *strategic level*, where the issues relate to overall pricing policies:

- What are the *needs*?
- What are the *arguments*?

At a *tactical level*, where the issues relate to setting list prices:

- What are the *needs*?
- What are the *arguments*?

At an *operational level*, where the issues relate to transaction pricing:

- What are the *needs*?
- What are the *arguments*?

The answers to the six questions above will give a multifaceted picture of the needs and arguments for an IT-based price management system, thus contributing to a description of what constitutes good price management in the interaction with IT. This is a subject sparsely discussed in existing literature, and this master thesis will thereby make a contribution to the general body of knowledge regarding IT-based price management. It will also be useful to Synchron since the identification of the incentives for IT-based price management could be used in the promotion of its GPM solution.

### 1.4 Purpose

The purpose of this master thesis is to map and analyze the incentives for an IT-based price management system, and to discuss how these incentives could be used by sales representatives.

### 1.5 Delimitations

The area of research is delimited to studying the incentives for an IT-based system in spare parts price management of the discrete manufacturing industry. The studies of the pricing process is further limited to only studying the process from factory sales price to dealer purchase price within three companies in this industry.

Both the transaction uncertainties of the customer and the application uncertainties of the supplier have been discussed in chapter 1.3. Since this master thesis was initiated by Synchron, in the role of a supplier, the latter uncertainties will be in focus at an expense of the former.

The needs and arguments could in addition to the already made division, in turn have been divided in what could be the needs and arguments for a system as an improver of price administration or the pricing ability. We have chosen, in consultation with Synchron, not to make this subdivision of the price management process, and the two questions will be dealt with in parallel.

## **1.6 Stakeholders and target audience**

The stakeholders of this master thesis constitute the project initiators and advisors at Syncron, the advisers at Lund University as well as the opponent group at the Technology Management Program at Lund University. The main target audience is students attending the Technology Management Program and the sales representatives and product development team of the IT-based price management system at Syncron. Another target audience is other students with interest in price management and the management of after sales in the discrete management industry.

## **1.7 Disposition**

The first chapter has now introduced the reader to the subject, by introducing the basics of price management and giving a brief introduction of Syncron and its GPM solution. Furthermore, the research questions have been described and the purpose has been defined. The second chapter contains the methodological considerations, including the scientific approach and the research strategy.

The third chapter presents a theoretical framework of IT-based price management, thus putting it into a context from which to study the three cases described in the fourth chapter. With the theoretical framework and the empirical findings in place, the fifth chapter then continues with the analysis. Finally, in the sixth chapter, the results are presented and discussed.



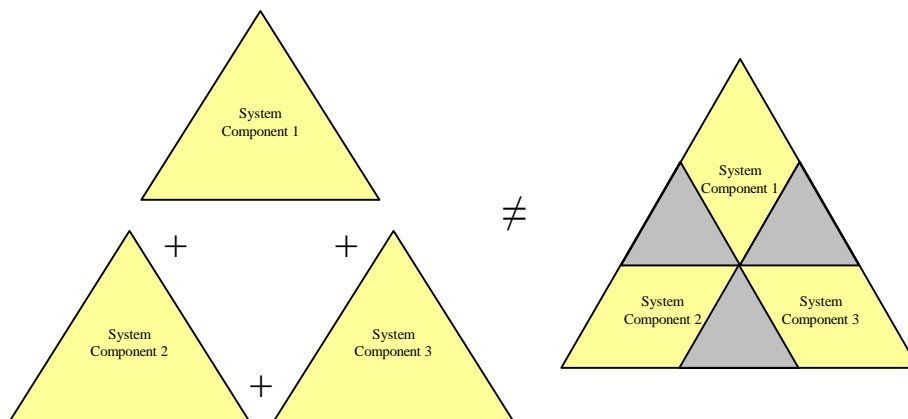
## 2 Methodological considerations

*In this chapter the chosen methodology is presented. The research process is clarified in order to enhance the reader's understanding of how the study was performed. Finally criticism of primary and secondary data is discussed.*

### 2.1 Scientific approach

A successful research process is characterized by the researcher's ability to accomplish a fit between the paradigm, methodology and the problem at hand<sup>28</sup>. Thereby would any methodological considerations lack relevancy without stating the basic assumptions of reality and the knowledge of the researcher<sup>29</sup>. The systems approach, discussed by Arbnor and Bjerke, was considered to be the one to best harmonize the three constituents of the research process of this master thesis.

The basics of this approach are that reality is considered to be objective and that the whole differs from the sum of the parts that constitute reality. In the systems approach the parts are considered to be mutually interacting and therefore can not be added and subtracted as separate components. The implication of this is that the relations between different parts can generate both positive and negative effects. These effects, referred to as synergies, are created in the interaction between different system components.<sup>30</sup> These are symbolized by the shaded areas in Figure 2-1.



**Figure 2-1:** Synergy effects created by combining system components<sup>31</sup>.

<sup>28</sup> Nilsson (1994) p. 1

<sup>29</sup> Bjerke (1981) p. 2

<sup>30</sup> Ibid, p. 7

<sup>31</sup> Based upon fig 5, Bjerke (1981) p. 7

Another important feature of the systems approach is that developed knowledge is considered to be dependant on the system. This meaning that the parts of the system are explained by the character of the system as a whole. In trying to predict the outcome of future events, the systems approach considers factors that have been determinants for similar events in the past to be relatively unimportant. The researcher instead has to look for relevant driving forces that are applicable for the specific constellation in the specific situation.<sup>32</sup> We believe that these characteristics, in a number of ways, make the paradigm appropriate in our research process.

Price management is a complex matter consisting of several areas of business administration. We aim to find synergies from the interaction of these areas. There will be implications on our result by the fact that we are studying companies in the discrete manufacturing industry. When making generalizations we have to consider the fact that our results are dependant on the system from which they originate, and therefore we have to look at the relevant driving forces rather than the specific results generated from companies in our analysis.

### **2.2 Research strategy: Multiple case study**

A multiple case study can be described as an inquiry, where a present phenomenon is empirically investigated and where the boundaries between the phenomenon and its context can not be clearly defined. Therefore, multiple sources of evidence are needed in the research process.<sup>33</sup> A situation where case studies are considered to be especially appropriate is when little is known about a phenomenon, since theory building does not rely on previous literature or prior empirical findings<sup>34</sup>.

#### **2.2.1 Strengths and weaknesses with case studies**

There are a number of strengths and weaknesses that should be considered when conducting a case study. The weaknesses that ought to be mentioned are that a theory solely based on empirical findings might become too complex, depending on the selected cases. Another risk is that the researcher tries to cover every possible aspect that might be found empirically. When doing this, the developed theory might become too narrow in its scope and not being applicable to anything else but the specific cases studied.<sup>35</sup> The most frequent criticism of case studies is that they are subjective and influenced by the researchers' judgments.

The strengths associated with conducting a case study are several. By using cases, there is a likelihood of generating new theory and the possible conflicts between different cases might enhance the possibilities of thinking in new dimensions. An additional aspect is that theories developed by using cases are more likely to be valid

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<sup>32</sup> Bjerke (1981) p. 8

<sup>33</sup> Patton et al (2003) p. 60

<sup>34</sup> Eisenhart (1989) p. 548

<sup>35</sup> Ibid, p. 547



since they are tested on recent occurrences and are constantly evaluated during the development process.<sup>36</sup>

## **2.3 Case study methodology**

There are a number of activities that needs to be carried out by the researcher in order to get the most out of conducting research through a case study. The following five step roadmap is a summary of what case study literature emphasizes.<sup>37</sup>

### **2.3.1 Step one: Determine the object of study**

The first step in the process is to determine what subject the cases should focus on. Initially this should be broadly defined to give the researcher the opportunity to maneuver if the selected case leads into new directions. However, the aims of the research must be outlined.<sup>38</sup>

Since our research topic was sparsely treated in literature we decided, at an early stage, to conduct a multiple case study. Our object of study was initially initiated by Synchron. Synchron experienced a challenge in identifying what the actual incentives are for companies to develop their price management process with an IT-based system. Given this broadly defined research area we had the overall aims outlined. Thus we were relatively free to concretize the actual research question.

### **2.3.2 Step two: Select the cases**

In order for the researcher to be able to make profound and valid conclusions from the case study, the cases must be relevant to the object of study and enable the selected subject to be thoroughly examined<sup>39</sup>.

To avoid the presented shortcomings of case studies the following measures have been taken. We have limited our scope to three companies within a specific industry segment and only focused on the overall stated incentives, neglecting too detailed findings.

The reason for choosing the spare part market within the discrete manufacturing industry as the object of study is that it is characterized by a vast number of products and thus represents a high degree of complexity in price management. The criterion of the cases, to have global operations, was also introduced since this would further contribute to the complexity in pricing. This since it was considered that the greater the complexity, the greater the possibility to identify incentives for IT-based price management.

The companies which we have selected as our cases are all within the existing customer base of Synchron. This has simplified initial contacts and enabled access to

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<sup>36</sup> Eisenhart (1989) p. 546

<sup>37</sup> Patton et al (2003) p. 67

<sup>38</sup> Ibid

<sup>39</sup> Ibid

data and pricing personnel. Another reason for the case selection is that they are in different stages in the development of IT-based price management. The three companies are:

- *Volvo Construction Equipment* (Volvo CE), which was the initiating part of the price management project at Synchron and is at present successfully using the developed solution.
- *Dynapac Compaction Equipment* (Dynapac), which today is evaluating a similar solution to the one developed by Synchron and Volvo CE.
- *Alfa Laval*, which has no ties to Synchron concerning price management but has conducted its own development projects regarding the same issues.

Volvo CE and Dynapac are very similar in the sense that they are selling the same type of products to a specified customer segment. Alfa Laval has a much more diversified base of customers in a number of different segments. Despite these differences the companies are all facing the same area of difficulty since they globally have to price thousands of articles every year.

With our selection of companies, we hope to identify many different incentives of why companies in the discrete manufacturing industry are working with IT-based price management. Since they differ in various aspects, the possibility that our conclusions could be applicable to a wider range of companies is enhanced.

In case studies it is suggested to study four to ten cases or to stop adding cases when the additions does not contribute to anything new in an already existing pattern<sup>40</sup>. In our survey it could have been preferable with additional cases. However, it was hard to find companies that met the requirements and were willing to participate.

### **2.3.3 Step three: Build initial theory through a literature review**

The existing literature on the object of study helps putting the case study in a context and establishes the reliability in the future findings. If the findings correspond with existing literature, their relevance will be increased, while if the opposite is true, deviations could be investigated in order to develop a new theory.<sup>41</sup>

Two common ways of conducting research is through deduction and induction. When using the deductive approach the researcher will use existing theory to analyze empirical findings.<sup>42</sup> The inductive approach, on the other hand, has its starting point in an empirical finding from which the researcher aims to develop a new theory<sup>43</sup>.

In our theory development we have used an inductive approach since we are trying to analyze a research area, which is sparsely discussed in existing literature. We took our starting point in studying general price management literature. When realizing that

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<sup>40</sup> Stuart et al (2002) p. 426

<sup>41</sup> Patton et al (2003) p. 67

<sup>42</sup> Andersen (1998) pp. 29-31

<sup>43</sup> Ibid

this is a complex matter consisting of several aspects of business administration, we tried to find the most appropriate theoretical framework in order to capture this complexity. After an intensive process of theory mapping we found price management, organization and IT to be the most relevant components in a framework to generate the desired synergy effects. The information has been found through the libraries at Lund University and consists of literature, in the form of books and articles, from the above mentioned theoretical areas.

### **2.3.4 Step four: Collecting and organizing the data gathering**

In order to ensure the possibility of comparison between different cases, instruments and protocols should initially be established to ensure an uniformity in the empirical findings<sup>44</sup>.

Our area of research aims to find the incentives for working with IT-based price management in the discrete manufacturing industry. Since we want to get a profound understanding of these incentives we have used a qualitative approach in collecting our primary data. This was done by conducting in-depth interviews.

In the process of designing the theoretical framework we developed a set of questions for the interviews with Volvo CE and Dynapac. The questions, presented in Appendix 1 were sent to the respondents in advance in order to give them a better chance to prepare their answers. After having conducted interviews with Volvo CE and Dynapac, and having established the theoretical framework, we were able to design a new set of questions with a narrower focus than the previous. These were used in our interviews with Alfa Laval and are presented in Appendix 2.

We have been three persons present when conducting our interviews. Two persons have been assigned to write down the answers while the third have been responsible for conducting the interview. After each interview, we have compared the generated answers and deviations have been thoroughly examined. As an additional validity check we have asked our interviewees to double-check our compilation of the interview in order to eliminate the risk of misinterpretations.

Due to the difference in character of the separate cases, we are unable to present them in a totally uniform way. Since our aim was to identify incentives at a general level, there was no need for structured comparisons between the cases. The differences in the presentations should have no greater implication on the final result.

### **2.3.5 Step five: Analyzing the data and reaching conclusions**

The ultimate goal with a case study is to find patterns, construct conclusions and build theory. To ensure the validity of the results it is important to keep in mind that the context for the cases needs to be thoroughly described.<sup>45</sup> An important part of the

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<sup>44</sup> Patton et al (2003) p. 67

<sup>45</sup> Eisenhart (1989) p. 545

context description is to link results to existing literature since the findings usually are based on a limited number of cases<sup>46</sup>.

The analysis aims to identify the incentives for an IT-based price management system and to sort them into the different fields of the matrix illustrated in Figure 1-5. This was done in a four step process:

1. The theoretical and empirical findings were separately divided into the three horizontal levels; strategic, tactical and operational.
2. Patterns and recurrent terminology at each level were identified.
3. The identified patterns were assigned with an appropriate generic term. Thereby the incentives were identified.
4. The similarities and differences between the theories and the empirical findings as well as between the different cases were analyzed. During this analysis the incentives were categorized as a need or an argument.

## 2.4 Critics of sources

One method to assess a source of information is through the *contemporary*, *tendency*, *dependency* and *authenticity* criteria. The *contemporary criterion* evaluates if information from an oral source is collected close to the occurrence of the actual event. If little time has elapsed, the likelihood of the interviewee to distort or forget information is limited. By looking at the *tendency criterion* the interviewee is judged whether he/she has personal interest in what is said or written. The suggestion for how to evaluate this is to find two sources that counter each other. The *dependency criterion* studies whether two sources originate from the same initial source. An example of this can be two articles that have similar or identical references. With the *authenticity criterion* the sources are evaluated to what extent the presented information is true or not.<sup>47</sup>

### 2.4.1 Critics of primary data

#### *Contemporary criticism*

Our primary data has been collected through in-depth interviews with employees at the selected case companies. The price management development process has recently been initiated at all of the three companies and our interviewees are all deeply involved in the process. In two of the cases they have even been the initiating part of the projects.

#### *Tendency criticism*

Our case companies have invested large amounts in this process, and the people with whom we have spoken to, in two of the cases, have even been the initiators to these projects. Thereby, it is unlikely that they would openly criticize something that they have so much personal interest in. Since we have theoretically been convinced of the potential in working with price management, we do not have any reason to believe

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<sup>46</sup> Patton et al (2003) p. 67

<sup>47</sup> Eriksson et al (2001) p. 151

that the information presented to us would have been altered to give an exaggerated positive description of the actual state. Another point to support this view is that we have received correlating answers from all three companies.

*Dependency criticism*

Although some of the answers have been correlating, we assume that the answers we have received are based on the interviewees' own experiences, since they have nothing to do with each other and the companies for which they work are in no way competitors.

*Authenticity criticism*

All of our companies are customers to Synchron and the information that we have asked for, in our point of view, have not been of a character not already known or too strategically sensitive for the companies to share. Therefore we find it unlikely that we have been misled during the process of gathering our empirical data.

## **2.4.2 Critics of secondary data**

Since we are using a qualitative approach and since we had to design our own theoretical framework, a great deal of our work has been to study secondary data.

We have evaluated our secondary data being aware of that our knowledge of its history is limited and therefore we can not be confident about its accuracy. However, to assess every source in our secondary data would be extremely time consuming and we do not find it reasonable to conduct this work in our limited timeframe.

Our belief is that the authors of the literature used in our theoretical framework have done the necessary research to be able to justify their stated findings. Our primary way of verifying the used literature has been by double-checking our findings through studying many different sources.

## **2.5 Chapter summary**

With this chapter we have provided the reader with an understanding of the scientific approach and the research strategy of this master thesis. The applied multiple case study methodology has thoroughly been described through a five step process. With the basic assumptions of the systems approach kept in mind, the theoretical framework can now be presented.



### 3 Theoretical framework

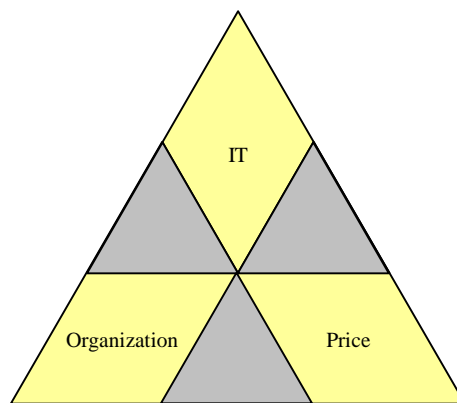
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*This chapter contains a presentation of the theoretical frame of reference. It will also describe the essential theories that highlight the synergy effects of the three theoretical areas; IT, organization and price.*

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#### 3.1 Constituents of the framework

Price management can be described from many different perspectives. We have identified the relationships between the three areas; price, organization and IT, to best capture the entirety of the subject. Thereby the three constituents of our theoretical framework are where these areas overlap, as illustrated by the darker shaded fields in Figure 3-1.



**Figure 3-1:** *The constituents of the theoretical framework.*

#### 3.2 Price and organization



The synergy effects of the theoretical areas of price and organization will be divided into the following categories; *The development of strategic pricing, Industry level, The product/market strategy level, The transaction level and Centralizing the pricing process.*

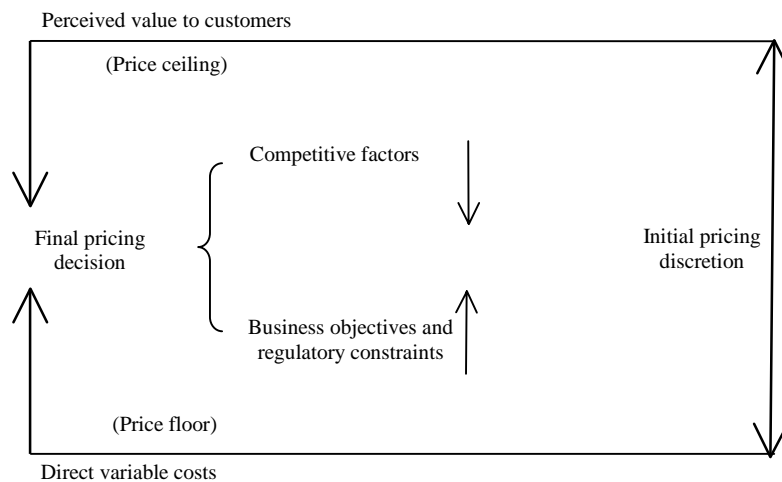
##### 3.2.1 The development of strategic pricing

There is a difference between setting prices and implementing strategic pricing. The former yields reactive responses to market changes while the latter enables a proactive approach thus developing the ability to anticipate such changes. A challenge in the relationship between the organization and price, as implied in the background, is that the perception of price and price related issues vary depending on from which organizational perspective they are studied. As a result, the implementation of strategic pricing could mean changes in whom, when and how

## Global Price Management

prices are being set. Strategic pricing requires a new kind of relationship between finance and marketing.<sup>48</sup>

The *price ceiling* and the *price floor* are the upper and lower limits, when pricing an offering. These are represented by demand factors like *perceived value to customer* and cost factors respectively. The intermediate and available space is further restricted by *competitive factors*, which tend to lower the upper limit, as well as by *business objectives and regulatory constraints* which in turn tend to raise the lower limit.<sup>49</sup> The situation is illustrated in Figure 3-2.



**Figure 3-2:** *Limits to the price span*<sup>50</sup>.

Given this limited freedom of action, what are the difficulties in implementing strategic pricing? Pricing is commonly described as a linear decision, isolating and separating the different steps of the pricing process. With this approach a company is exposed to the risk of overlooking the interactions of the company's objectives and the competitive situation with customer characteristics. It is not preferable, and it can even be bad to have a one-sided focus on a particular information category when making price decisions.<sup>51</sup>

Companies must thus try to integrate different information types in their price decision processes. Internal information considering cost structures and the sales representatives' objectives must be integrated with external information such as customer needs and value expectations as well as the intentions and abilities of the competitors. A well-performed integration enables the identification of synergies, which then can be exploited. This is labeled strategic pricing.<sup>52</sup> The difference

<sup>48</sup> Nagle et al (2002) p. 1

<sup>49</sup> Monroe (2003) p. 11

<sup>50</sup> Based upon Figure 1.1, Monroe (2003) p. 12

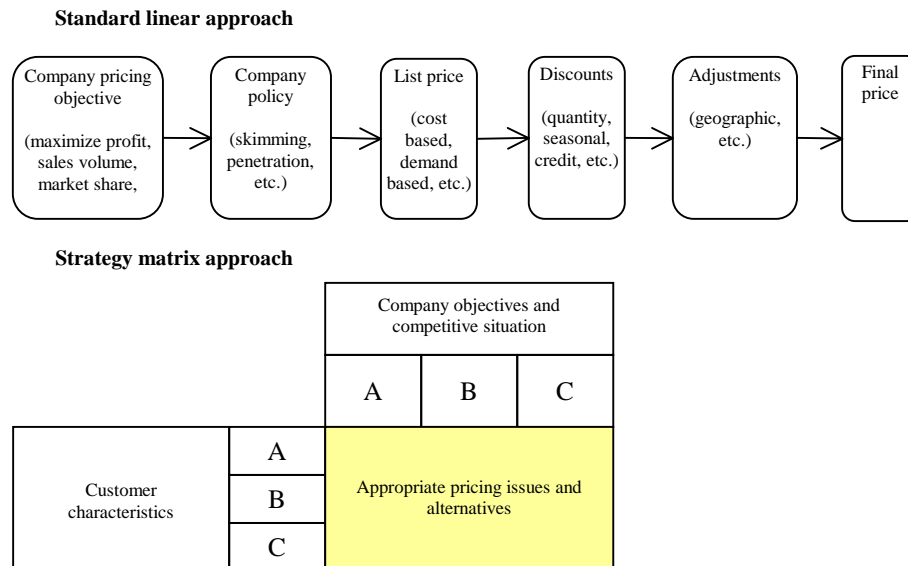
<sup>51</sup> Duke (1994) p. 15

<sup>52</sup> Nagle et al (2002) pp. 10-11



## Global Price Management

between the *standard linear approach* to pricing and the preferable *strategy matrix approach* can be studied in Figure 3-3<sup>53</sup>.



**Figure 3-3:** Differences in the approach to pricing decisions<sup>54</sup>.

Even though the companies realize the importance of integrating the three information categories; customer characteristics, company objectives and the competitive situation, it does not necessarily mean that it is uncomplicated to put into practice. Estimating the perceived value of the customer is not straightforward. Taking this perspective often results in prices being set too low since there is a focus on short-term revenues. This undermines the customers' perceived value, which thereby further reduces the revenues.<sup>55</sup> On the other hand, it is impossible to only consider costs due to the fact that it is impossible to establish the unit cost before fixing the price. This because the unit cost will differ with volume and the volume will differ with price.<sup>56</sup> Finally, when only considering the competitive situation, there tends to be an unhealthy focus on market share rather than increasing profits<sup>57</sup>.

Price management often centers on setting prices, which results in an underdevelopment of the pricing process<sup>58</sup>. In order to regain focus it can be useful to think of pricing at the three levels; industry level, product/market level and transaction level<sup>59</sup>.

<sup>53</sup> Duke (1994) p. 15

<sup>54</sup> Based upon figure in Duke (1994) p. 17

<sup>55</sup> Nagle et al (2002) p. 6

<sup>56</sup> Ibid, p. 2

<sup>57</sup> Ibid, p.7

<sup>58</sup> Monroe (2003) p. 18

<sup>59</sup> Marn et al (2004) pp. 14-15

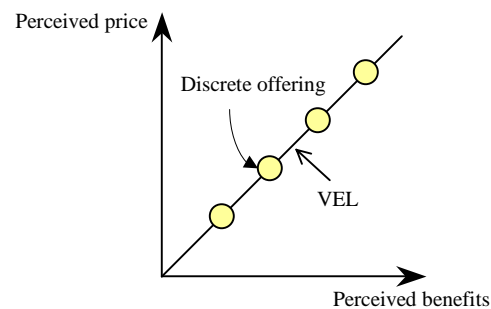
### 3.2.2 Industry level

The industry level is the most general level of price management and the critical issue is the price levels of the industry. The objective for a company, at this level, should be to know, predict and if possible influence the price level in a profitable direction. A failure in doing this can lead to unnecessary price wars or at least to an unnecessary downward price pressure. The industry strategy should lead to a situation where the price a customer is paying is in parity with the benefits received and the work behind the products. A better understanding of trends affecting the industry as a whole, such as supply, demand, costs and their drivers will give a company the possibility to act proactively to market changes. By doing this, more of the potential profits can be captured.<sup>60</sup>

### 3.2.3 The product/market strategy level

The product/market strategy level of price management is about positioning your product right in relation to your competitors. Here the focus is on setting list prices or suggested retail prices that can serve as a starting point for negotiations at a lower level. As a price manager at the product/market level there are four aspects that should be kept in mind. First, to establish a product's position in comparison with the competitors', the market segment needs to be analyzed and value mapped. This will give an indication of the customer's willingness to make tradeoffs between price and benefits.<sup>61</sup>

The two entities of a value map are the *perceived price* and the *perceived benefits*. The result of subtracting the *perceived price* from the *perceived benefits* is the customer value. Figure 3-4 illustrates a value map with four *discrete offerings*.<sup>62</sup> If the market is stable and the measurements of the entities have been made correctly, the competitors should be aligned along the diagonal called the *value equivalence line* (VEL)<sup>63</sup>.



**Figure 3-4:** A value map of four discrete offerings<sup>64</sup>.

<sup>60</sup> Marn et al (2004) p. 74

<sup>61</sup> Ibid, pp. 43-44

<sup>62</sup> Ibid, p. 45

<sup>63</sup> Ibid, p. 46

<sup>64</sup> Ibid, p. 45

## Global Price Management

Next, competitors might raise or lower their prices or change the intrinsic components of their offerings. This might change the value map for the segment and how other actors are perceived. The third aspect to consider is that markets seldom consist of one group of actors, demanding the same combination of benefits and price. The price manager needs to identify these different groups. Finally the customer's variability in price and benefit perceptions needs to be understood.<sup>65</sup>

### 3.2.4 The transaction level

The transaction level of price management is the most fundamental. Here the critical issue and objective is to manage the price charged for a specific transaction to make it as profitable as possible.<sup>66</sup> The list price, which acts as a recommendation to the sales representatives is often the starting point of a price negotiation with a customer. The negotiations might result in various discounts being given, thus creating a difference between the list price and the price on the invoice.

It is easy to focus either on list price or invoice price, thus neglecting many of the components that contribute to the final transaction price. These components could be different kinds of transaction specific discounts or agreements that reduce the total revenue that a company can collect. After a subtraction of all the off-invoice items that are transaction specific, the residual is the pocket price. The stepwise reduction of the price, ending in the pocket price, is called the pocket price waterfall. An illustrated example of a typical pocket price waterfall including the subtraction of both off-list price and off-invoice price items can be studied in Figure 3-5.<sup>67</sup>

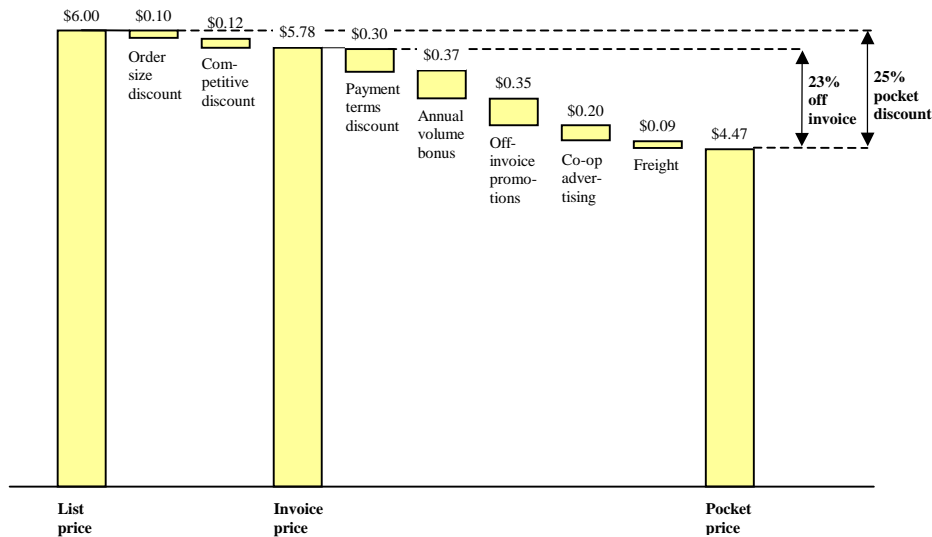


Figure 3-5: A pocket price waterfall<sup>68</sup>.

<sup>65</sup> Marn et al (2004) pp. 43-44

<sup>66</sup> Ibid, p. 23

<sup>67</sup> Ibid, pp. 24-25

<sup>68</sup> Ibid, p. 24

Depending on the company size, the transaction level can involve hundreds of decisions every day. The large number of decisions usually makes the situation extremely difficult for the senior managers to survey and understand. This is one of the major reasons why the transaction level of business often is neglected. This is partly due to that ERP-systems often leave this information out and only report the overall average prices achieved. Another contributing factor is the bonus programs. These are usually not focused on achieving the optimal price for the company, rather to close the deal.<sup>69</sup>

### 3.2.5 Centralizing the pricing process

The formal processes for making price changes or temporary price exceptions are, in many companies, often vague or at worst nonexistent. There is often no one that is explicitly hired to own the overall responsibility for pricing profitability. Without a holistic, long-term perspective on pricing, pricing decisions might create more damage than they solve problems.<sup>70</sup>

To leave pricing decisions with the sales organization or the distribution chain is equivalent with disclaiming the ability to control the strategic development of the business<sup>71</sup>. Delegating the pricing responsibility has no distinct advantage when there are no information asymmetries between central management and the regional sales organizations. However, if information asymmetries about local conditions and customer needs do exist, delegating the pricing responsibility can be in the best interest of a company.<sup>72</sup>

A relatively common pricing process, especially among companies in business-to-business markets, is that the sales representatives are free to negotiate any deal that meets up to a minimum profit criterion. By adopting this ad hoc pricing process, companies believe that they will be able to respond more quickly to changing market conditions. However, the effect is usually that customers learn that by negotiating more aggressively they can achieve a better discount. Other effects of inconsistent policies might be that customers learn to place orders at the point when sales goals are to be evaluated and aggregated.<sup>73</sup>

A way to get around this problem is to present different product offerings that answer to different customers' preferences and needs. Sales representatives should not be able to negotiate the prices of the different offerings, but should be able to offer different combinations of them. Price negotiations can become relevant in predetermined circumstances, such as if negotiating for larger quantities. When administrating the selling process in this manner, customers are forced to present their actual needs to the sales representatives.<sup>74</sup>

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<sup>69</sup> Marn et al (2004) p. 23

<sup>70</sup> Nagel et al (2002) pp. 156-161

<sup>71</sup> Ibid, p. 1

<sup>72</sup> Lal (1986) pp. 161-164

<sup>73</sup> Nagel et al (2002) pp. 156-161

<sup>74</sup> Ibid

This process can be implemented in highly decentralized organizations. However, the development of the system to determine variables such as the price metrics, the price levels and the discount policies needs to be centralized in order to appropriately being able to deal with customers that might cross-ship products and information about prices. These centrally determined policies should be reviewed by a committee consisting of representatives from finance, marketing and sales. If they find sales to be unsatisfactory they should not solve this by granting temporary exceptions but instead by reviewing the pricing strategy in its entirety. When changes in the pricing policies are not enough, the committee must be able to lead the company into making more fundamental changes such as introducing a new line of products or if they find customers unaware of the value they receive, they might increase or start new sales programs.<sup>75</sup>

There are however situations, when it might be better to negotiate the price in an ad hoc manner than to price according to policies. This might be true for markets where customers do not make many purchases and lack information about their alternatives, or when purchasing unique products conformed to a specific customer.<sup>76</sup>

### 3.3 Organization and IT



The synergy effects of the theoretical areas of organization and IT will be divided into the following categories; *Integrating the supply chain, Integrating the supply chain using ERP-systems, Integrating ERP-systems using a Service-Oriented Architecture, Aspects of SOA-implementation.*

#### 3.3.1 Integrating the supply chain

An important aspect of Supply Chain Management (SCM) is coordination of formerly discrete activities and thereby an enhancement of the process of adding value to the customer. Since the development of the SCM literature in the mid-eighties, there has been a focus on the physical flow of goods through the supply chain. Recently, the informational aspect has been added, illustrated by the following definition of SCM:

*“A set of three or more organizations directly linked by one or more of the upstream (supplier-related) and downstream (customer-related) flows of products, services, finances and information from source to customer”<sup>77</sup>.*

Organizations within the supply chain have relationships that can be varying in the degree of commitment, ranging from an arm's lengths relationship to full out partnerships. Organizations with arm's length relationships try to minimize the effort and cost of handling the relationship and thus concentrating on short-term profits. On

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<sup>75</sup> Nagel et al (2002) pp. 156-161

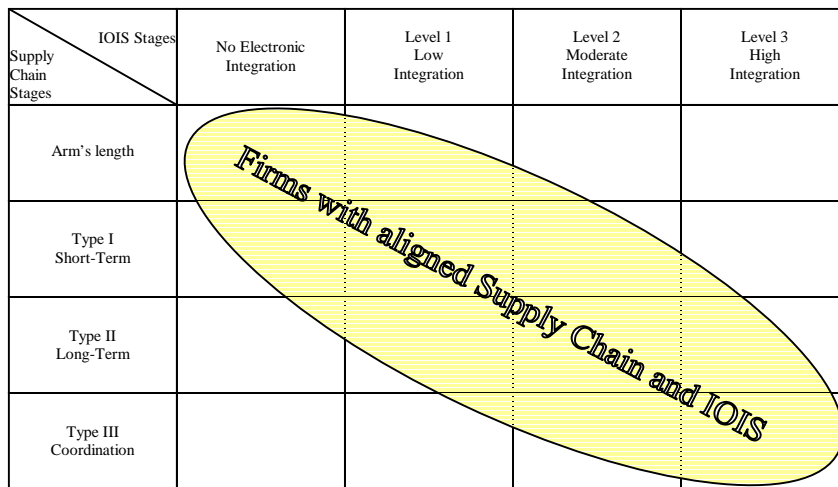
<sup>76</sup> Ibid

<sup>77</sup> Shah et al (2002) pp. 282-283

## Global Price Management

the contrary, partnership relations focus on long-term commitment and view the partner as an extension of its own organization.<sup>78</sup>

The character of the relationship, ranging from arm's length to partnership, has a close correlation to the usefulness of Inter-Organizational Information Systems (IOIS). IOIS could be defined as IT-systems aiming to integrate and connect different organizations' processes and functions. A lack of commitment in a relationship should result in a resilience to invest in IOIS since a bad fit between the two have been proven to have negative results on certain performance measures. Simply put, it is negative to stray from the diagonal axis in Figure 3-6.<sup>79</sup>



**Figure 3-6:** Level of partnership in relation to the level of IOIS integration<sup>80</sup>.

The level of integration of the information systems can be divided into four development stages. The first stage only sparsely includes the use of IT. Most transactions in the supply chain are dealt with through fax or the postal service. In the second stage, the introduction of Electronic Data Interchange (EDI) is an important factor. This dramatically influenced the degree of automation in the labor intensive task of entry and re-entry of data between customers and suppliers. The third stage is the introduction of an IT-system to ease the administrative process and the fourth stage can be represented by the integration of different IT-systems.<sup>81</sup> This integration is unlikely to be successful without a common technology platform to provide all the information needed<sup>82</sup>.

<sup>78</sup> Dyer et al (1998) pp. 57-58

<sup>79</sup> Shah et al (2002) p. 289

<sup>80</sup> Ibid, p. 284

<sup>81</sup> Shore (2001) pp. 30-31

<sup>82</sup> Sherer et al (2001) p. 67

### 3.3.2 Integrating the supply chain using ERP-systems

IT has helped organizations in bringing visibility to the entire supply chain. An ERP-system is an IT-system that manages, through integration, all aspects of a business including production planning, purchasing, manufacturing, customer service, distribution, accounting and sales.<sup>83</sup>

Large organizations with many subsidiaries often have ERP-systems incompatible to each other, especially when the organization's growth mainly has been conducted through mergers and acquisitions. For instance, common operations could be performed and reported in different ways within organizations. If these organizations are merged, new common working procedures must be introduced.<sup>84</sup>

ERP-system providers gain experience about an industry by working with many actors within the same industry, thus enabling them to establish best practices. These are then used and embedded in the ERP-systems, which makes the systems interesting to managers since they often are attracted by the notion of being able to benchmark against best practices.<sup>85</sup> By doing this, the software, and thus working procedures are made to fit in a default, and evidently strong way of doing business<sup>86</sup>. Many problems arise when trying to modify systems according to customers' specific needs and processes. To work according to a clearly defined industry standard saves time, money and inconvenience.<sup>87</sup> At the same time, inflexible software often creates problems in diverse organizations, such as organizations with multiple products and global operations<sup>88</sup>.

### 3.3.3 Integrating ERP-systems using a Service-Oriented Architecture

In recent years several techniques to collect and distribute information between different ERP-systems have been developed. Service-Oriented Architecture (SOA) is a collective name of techniques that synthesizes information from disparate sources into a universal repository. It is not a software application itself but an architectural style which aims to achieve loose coupling among interacting software applications<sup>89</sup>. A SOA can integrate multiple functions and systems into an end-to-end process, both within and beyond an organization. This is done by relying on a standardized software interface to which many applications can connect.<sup>90</sup> Its purpose is to help different components of software solutions to communicate with each other and this can be done in a number of different ways. An example of a SOA implementation is the Enterprise Service Bus (ESB) as illustrated in Figure 3-7.

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<sup>83</sup> HsiuJu, et al (2004) p. 207

<sup>84</sup> Benders (2006) p.197

<sup>85</sup> Ibid

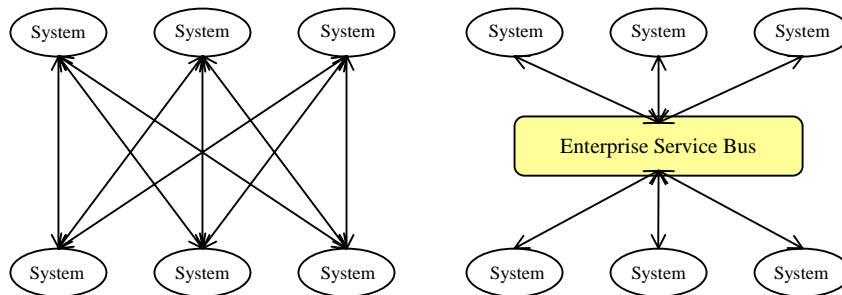
<sup>86</sup> Clausen et al. (1999) p. 463-482

<sup>87</sup> Benders (2006) p.198-199

<sup>88</sup> Schary et al (2001) p. 302

<sup>89</sup> www.xml.com, 2006-03-22

<sup>90</sup> Lamont (2006) p. 20



**Figure 3-7:** Before and after the implementation of an ESB.

When systems are in need of communicating with each other, they need to tailor their interfaces and ways of sending and receiving data to each other. An ESB solves this resource demanding task by supporting communicative interfaces to a number of different systems and acts as an interpreting bridge between them. This is done by the usage of meta-data.<sup>91</sup> The meta-data could be described as a description of where and how data can be retrieved. To exemplify this, the meta-data could be the coordinates on a chessboard and how the next move should be conducted.<sup>92</sup> An ESB uses the meta-data to retrieve, coordinate and send information as a mean of integrating different systems with each other<sup>93</sup>.

The most common organizations that move to a SOA are those with a significant number of external partners, in need of communicating with each other<sup>94</sup>. SOA creates a comprehensive view of the organization, looking at which entities, internal and external, that uses the same information or processes and integrates their information flow. Designing a SOA, which is applicable on several different types of organizations is preferable, as well as being able to display the processes implemented by the software in a graphical form. This makes the solutions more comprehensive to customers, something that is easily underestimated.<sup>95</sup>

### 3.3.4 Aspects of SOA implementation

Organizations often have access to IT-systems that conducts advanced planning and optimization solutions for supply and demand control. The implementation and integration of systems that enables electronic information flows makes real-time information about the organization available. By displaying this information in a holistic and supply chain oriented view, integrating functions and business units extends and makes the control of the enterprise more efficient.<sup>96</sup>

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<sup>91</sup> Schmidt et al (2005) p. 782

<sup>92</sup> Gilmer (1997) p. 25

<sup>93</sup> Schmidt et al (2005) pp. 782-783

<sup>94</sup> Lamont (2006) p. 21

<sup>95</sup> Ibid, p. 20

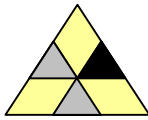
<sup>96</sup> Swaminathan Jayashankar et al (2003) p. 1389



An additional positive effect of implementing a SOA is that it makes communication more effective<sup>97</sup>. This is an essential prerequisite for effective marketing<sup>98</sup>. It also contributes to a more stringent and precise decision process by extending information from the entire supply chain, making it available to the decision makers in an aggregated manner<sup>99</sup>.

In order to make the implementation of a SOA-system as effective as possible, an audit of a company's IT- and business processes is recommended prior to the implementation<sup>100</sup>. Security issues must also be investigated and solved to prevent interception of the vast amount of information sent<sup>101</sup>.

### 3.4 IT and price



The synergy effects of the theoretical areas of IT and price will be divided into the following categories; *Why mixing IT and price?*, *Precision*, *Flexibility*, *Segmentation*, *Administration*, *Reporting*, *Market research* and *Optimization*.

#### 3.4.1 Why mixing IT and price?

Acknowledging pricing as a strategic capability and therefore proactively aiming to develop and improve the ability to set the right price at the right time, requires investments in three organizational capabilities; human capital, systems capital and social capital<sup>102</sup>. Systems capital includes pricing technology that gathers and delivers price related information to those making price decisions<sup>103</sup>. It is important to bear in mind that the introduction of a SOA-based pricing software invites the software provider to be a key player in the pricing process instead of, as traditionally, considered a core competence of the seller<sup>104</sup>.

An introduction of SOA-based price management has several other effects. A seamless integration of systems prevents the customers from recognizing the external services, thus contributing to an externally coherent visual image and identity of the company. Furthermore, the service can be provided by an expert in the domain of pricing. On the downside, sellers will for example only have access to pricing mechanisms supported by the system, and thereby be limited in their pricing options.<sup>105</sup>

However, in order to be able to make sound IT-system investment decisions, companies must acknowledge the available system categories and understand their

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<sup>97</sup> Swaminathan Jayashankar et al (2003) pp. 1390-1391

<sup>98</sup> Bruce et al (2002) p. 87

<sup>99</sup> Swaminathan Jayashankar et al (2003) pp. 1390-1391

<sup>100</sup> Crawford et al (2005) pp. 81-84

<sup>101</sup> Bernhardt et al (2005) p. 345

<sup>102</sup> Dutta et al (2002) p. 62

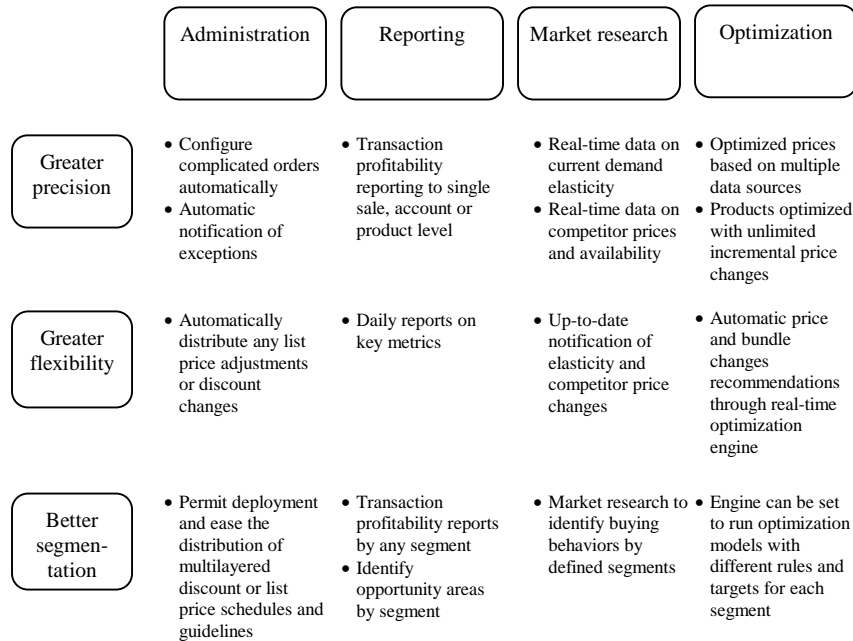
<sup>103</sup> Mam et al (2004) p. 161

<sup>104</sup> Bernhardt et al (2005) p. 341

<sup>105</sup> Ibid, pp. 344-345

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different roles. Four possible system categories are *administration*, *reporting*, *market research* and *optimization* while their sources of value can be described as improvements in *precision*, *flexibility* and *segmentation*. Their relationships are illustrated in Figure 3-8.<sup>106</sup>



**Figure 3-8:** *The correlation between system categories and their main sources of value*<sup>107</sup>.

### 3.4.2 Precision

Technology developments have given management a possibility to make relatively informed decisions that historically has been made more or less based on the manager's experiences and feelings<sup>108</sup>. With new pricing software the precision in pricing can be increased since the software acts as a frontline decision support. Sales representatives can for example get supportive information about:<sup>109</sup>

- The margins of a bid.
- Existing substitute products that would deliver the same value to customers with a better margin.
- Customer purchase history and thereby the possibility that the offered price will be accepted.
- How the deal can be improved if delivery times, penalties and terms of sale were altered.

<sup>106</sup> Marn et al (2004) pp. 162-165

<sup>107</sup> Based upon Exhibit 10-2, Marn et al (2004) p. 165

<sup>108</sup> Schary et al (2001) pp. 291-295

<sup>109</sup> Marn et al (2004) pp. 167-168

- Who has to make a price decision?
- Current stock levels and supply chain status, and information about delivery times.
- The new price compared to the previous price given to a customer.
- Potential sales of additional products, services or upgrades to higher margin products, after the conclusion of a deal.

All products have a pricing-indifference band in which customers are fairly insensitive to price changes. These changes might be small calculated in percent, but if utilized efficiently, they could have dramatic effects on a company's profits. Establishing the boundaries of the pricing-indifference bands have traditionally been very time and resource consuming. With the assistance of IT, this process has become both less expensive and faster to perform.<sup>110</sup>

### 3.4.3 Flexibility

Since the pricing process traditionally has been inadequately coordinated, swift price revisions have been hard to execute. The process has been characterized by a large portion of manual labor, which has included the distribution of new pricelists, updates of old lists and updates of the pricing software.<sup>111</sup> New IT-based pricing software allows changes to be implemented instantaneously throughout the whole supply chain, making pricing a dynamic capability<sup>112</sup>.

It also becomes possible to adjust prices to the prevailing supply and demand situation. For example, when demand is high and stock levels are low, the prices can temporarily be raised while a short-term downward turn might be dealt with through a temporary price cut.<sup>113</sup>

### 3.4.4 Segmentation

Customers have different perceptions of value for the same product and thus, their willingness to pay differs<sup>114</sup>. The possibilities to collect information about customers have traditionally been limited. The worst example is, when a customer enters a store and the sales representative has absolutely no idea about the customer's preferences and shopping patterns.<sup>115</sup>

When sales are administered through the use of IT, customer information can be collected by using a number of techniques. For example, the frequency of visits on a homepage and its different parts can be registered. Another example is that the purchase history of a customer can be utilized to create a profile for that specific

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<sup>110</sup> Baker et al (2001) pp. 54-60

<sup>111</sup> Ibid

<sup>112</sup> Swaminathan Jayashankar et al (2003) p. 1392

<sup>113</sup> Baker et al (2001) pp. 54-60

<sup>114</sup> Marn et al (2004) p. 164

<sup>115</sup> Baker et al (2001) pp. 54-60

customer.<sup>116</sup> Yet another alternative is to let customers answer electronic questionnaires about potential future offerings<sup>117</sup>.

With this information, companies are able to create offerings that suit different, well-defined customer segments. By doing this they eliminate the risk of offering price discounts to customers that otherwise would be prepared to pay a price premium. By keeping track of customers' buying behavior and frequency, companies can determine if a customer is loyal or not and thus if they qualify for a discount.<sup>118</sup>

### 3.4.5 Administration

Handling the administrative process around pricing would be a manageable task if prices were the same for every customer. However, the number of pricing decisions increases drastically with an increasing number of customer segments, geographical markets or other attributes in which a company wants to differentiate its products. As the number of pricing decisions increases, so does the risk for mistakes. Another aspect is that the large number of decisions makes the pricing process extremely complex to administer. Thereby the administrative needs are increased.<sup>119</sup>

Assisted by IT-based systems, companies can theoretically handle an infinite number of variables on which to base their prices. Thus the number of variables by which they can segment their customers also can be increased resulting in a higher administrative process precision. In order to be competitive, companies need not only to be able to deliver a correct price. They also have to do this swiftly and with support from the appropriate level of management. The administrative task can also be supported by new pricing software, which can automate the allocation of pricing questions to the appropriate level of the organization.<sup>120</sup>

### 3.4.6 Reporting

With new pricing software the pricing process can continuously be evaluated to identify potential improvements. Another spin-off effect, when implementing pricing software, is that it will standardize the vocabulary used throughout the organization. The effects of this can be seen in a number of different areas. Reports and evaluations can be based on the same data and metrics. It will thereby be easier to establish future goals and to identify to what extent different individuals or entities has contributed to the achieved results.<sup>121</sup>

Furthermore, when basing reports on the same data, using the same graphical layout, the image of the company as one entity is strengthened in the eyes of the employees. The image of a company as one single unit, even though consisting of several, even

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<sup>116</sup> Baker et al (2001) pp. 54-60

<sup>117</sup> Marn et al (2004) p. 164

<sup>118</sup> Baker et al (2001) pp. 54-60

<sup>119</sup> Marn et al (2004) p. 166-167

<sup>120</sup> Ibid

<sup>121</sup> Ibid, pp. 169-170

separate legal units, contributes to a visually coherent organization in an internal perspective.<sup>122</sup>

### **3.4.7 Market research**

The possibilities with new pricing systems in relationship to market research are extensive since changes and results can be implemented and collected in real-time. The market research work can concern price and volume tradeoffs or how different potential offerings would be received. To keep track of competitors' prices there are applications called Web-bots that continuously scan for competitor price changes and make sure that your company keeps the right price level compared to a specific competitor or to the market in general.<sup>123</sup>

### **3.4.8 Optimization**

Instead of just presenting a basis for decisions, price optimization systems can give concrete proposals for list prices, customer specific discounts or general price cuts. These proposals are based on the collection and analysis of customers' buying behavior and the current company and market situation. In addition to price proposals, these applications can generate forecasts in different stages of the product lifecycle.<sup>124</sup>

## **3.5 Chapter summary**

This chapter has provided a theoretical framework, which combines price and organizational issues with IT. Thereby, the context and a perspective of IT-based price management have been established before entering the next chapter containing the three cases.

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<sup>122</sup> Bruce et al (2002) p. 87

<sup>123</sup> Marn et al (2004) pp. 170-171

<sup>124</sup> Ibid, pp. 171-172



## 4 The three cases

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*In this chapter, the three cases studied are sequentially introduced. Starting with Volvo CE and continuing with Dynapac. Finally the case of Alfa Laval is presented.*

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### 4.1 The constitutes of the empirical findings

The disposition of each case will start with a historical perspective of the company and its organization, followed by a general presentation of their pricing process of spare parts. The homogeneity in the section titles will thereafter end, due to the difference in character of the separate cases, as described in chapter two.

### 4.2 Volvo Construction Equipment

#### 4.2.1 History and organization

Volvo CE is the oldest industrial company in the world still active in the field of construction machinery. It was founded in 1832 by Johan Theofron Munktell and has over the years become a worldwide supplier of construction equipment. This development has been enabled both through organic growth as well as through mergers and acquisitions.<sup>125</sup> Volvo CE's two most important geographical regions are Western Europe and North America. These two, account for about three quarters of the total sales.<sup>126</sup> However, through an extensive dealer network, Volvo CE is represented in all continents of the world and they provide products ranging from wheel loaders and articulated haulers to excavators and motor graders. The dealer network enables swift and service minded deliveries of spare parts to customers worldwide.<sup>127</sup> The Customer Support Business Area (CST BA) has the full responsibility to administer this support service.

The CST BA is thus a global business area responsible for parts, services and the development thereof. CST BA has a vision of being the strongest sales argument for a Volvo CE product, as well as being recognized as the market leader of customer support within the industry.<sup>128</sup>

The matrix based organizational structure of Volvo CE is divided into the two dimensions; *Business Lines* and *Regions*. The CST BA is officially at the same organizational level as the *Regions*, but from a price management perspective CST BA has decided to make a distinction between global and regional pricing. *Global Basic Pricing* is centrally organized and *Regional Pricing* has the perspective of the different regions as illustrated in Figure 4-1. The former, basically has the

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<sup>125</sup> www.volvo.com, 2006-02-22

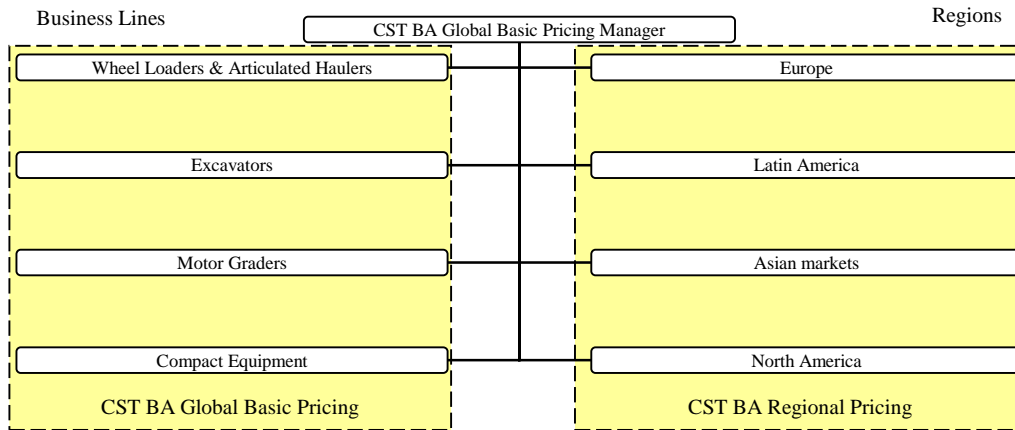
<sup>126</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>127</sup> www.volvo.com, 2006-02-22

<sup>128</sup> Interview with Jonas Rönnebratt, 2006-02-20

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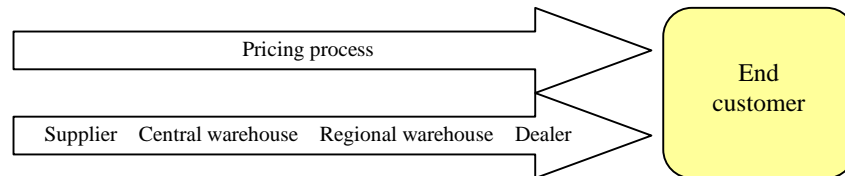
responsibility of setting regional list prices, while the latter manage contacts and pricing responsibilities towards CST BA's customers in each respective region.<sup>129</sup>



**Figure 4-1:** CST BA pricing organization<sup>130</sup>.

### 4.2.2 Pricing of spare parts at Volvo CE

Volvo CE has approximately 220 000 spare parts that need to be priced. Traditionally this has been administered in a back office model, which basically means that profits within the supply chain are controlled by adding margin percentages from the back to the front of the chain. The result was a pricing model originating from the suppliers' perspective, not from the customers' as illustrated in Figure 4-2. The prices of spare parts were set by the individual entities in the supply chain based on their respective purchase prices. Since the dealer net price could differ between warehouses, there was a lack of control of the distributed prices, consequently affecting the end customers. The dealers could have completely different prices on the same part which led to confusing and uncontrollable signals to the market. The situation was even worse considering the fact that article numbers differed within the value chain. Volvo CE thus had little control of the price to the end customer and could do little to follow up and manage the pricing situation to its will.<sup>131</sup>



**Figure 4-2:** The back office pricing process model.

<sup>129</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>130</sup> Ibid

<sup>131</sup> Ibid

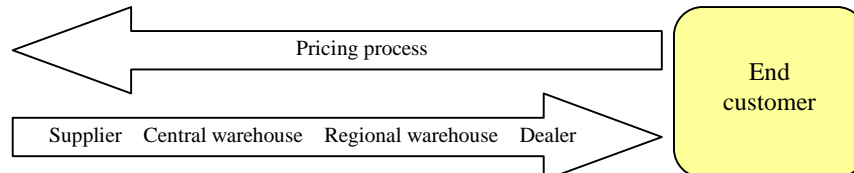


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When new pricing decisions and mathematical calculations were to be made by the individual entities within the supply chain, double work was built in the process. This since the different entities had to make their decisions in parallel to each other.<sup>132</sup> In trying to cope with the situation, Volvo CE wanted to centralize the pricing process, an effort that also would relieve different actors in the value chain from the complex and important task of pricing<sup>133</sup>.

Many warehouses, in making their pricing decisions, were considering information which had no real relevancy to the decision. The North American pricelist of spare parts could for example have sprung from the European pricelist adjusted with a certain percentage, that is, if the European pricelist were adjusted, so were the North American, regardless of its market conditions. Pricing the vast number of articles in the lists was time consuming, and few resources could be spared to be able to make proactive price decisions.<sup>134</sup>

The pricing process was thus being felt as in need of becoming unified and focused in a global perspective. It was essential to set prices based on customer price sensitivity and to control the pricing process from a front office perspective, having a more rapid and proactive approach. The sought-after change of the pricing process can be studied in Figure 4-3. As described above, the pricing decisions also had to be centralized and distributed more effectively within the value chain. To do this, Volvo CE turned to four different actors that allegedly could solve the problems by using an IT-based system.<sup>135</sup>



**Figure 4-3:** *The front office pricing process model.*

### 4.2.3 How to choose the IT-system provider?

Because of the vast number of articles that has to be administered, Volvo CE if not always, at least for a long time has had IT-based systems to manage its prices. There has however been a lack of harmonization between the systems. When the CST BA management group realized that they needed a global price management system, a detailed product specification list for such a system was established. CST BA had several alternative solutions and possible suppliers to choose from. SAP recommended a pricing module that could be integrated with the already existing SAP-system structure. Since this solution would have forced Volvo CE to change its pricing process in order to be compatible with the SAP-system, this was not an appealing option. Another alternative was a further development of the current parts

<sup>132</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>133</sup> Interview with Anders Åkerlund, 2006-02-20

<sup>134</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>135</sup> Interview with Leif Ottosson, 2006-01-24

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managing module, called the PAS. However, it was impossible for the PAS to meet the needs due to its software architecture. Yet another alternative was to let Volvo IT, an internal consulting firm, develop an entirely new system. This was however considered to be a too time consuming and resource demanding task.<sup>136</sup>

Syncron's solution, the GPM, remained a good alternative, given that it had the capability to be integrated with the already existing Single Order Interface (SOI) module. The SOI module also follows the schematic overview of the Syncron solutions, as illustrated in Figure 1-2, and is as the name implies a part of the Global Order Management.

Furthermore, since the GPM was in its early stage of development, it had the potential of being adjusted to Volvo CE's highly specified requirements list. The implementation of the system was to be managed and controlled by Volvo CE themselves and was consequently expected to become an expensive undertaking. The number of persons assigned to the price management department even had to be increased. The many effects, especially supposed monetary savings, were hard to quantify prior to the investment. However, the investment was not made in an attempt to reduce costs, it was made to enable additional revenues.<sup>137</sup>

In addition to examining the practical benefits of the system, Volvo CE, as always had to make an estimation of the payback time of the investment. Thus, the supposed additional revenues had to be quantified. This was done from two perspectives, both taking their starting point in the system's ability to highlight wrongly priced products. First, the calculations were made based on incremental price increases on a small percentage of the products identified as under priced. Secondly, the calculations were made based on price reductions of a few products identified as overpriced, rendering an increased sales volume and thus additional revenues. Both calculations independently resulted in acceptable payback times and the combination thereof most certainly had an acceptable timeframe.<sup>138</sup>

### 4.2.4 The Global Price Management module at Volvo CE

As stated in chapter 1.2.3, the project of implementing the GPM module was, at Volvo CE, named Global Parts Pricing System (GPPS). To further show the functionality of the GPM, it can be described as a part of the supply chain. This is illustrated in Figure 4-4, where an order formerly priced, based on the warehouse systems' information now instead is priced based on information from the GPM.<sup>139</sup>

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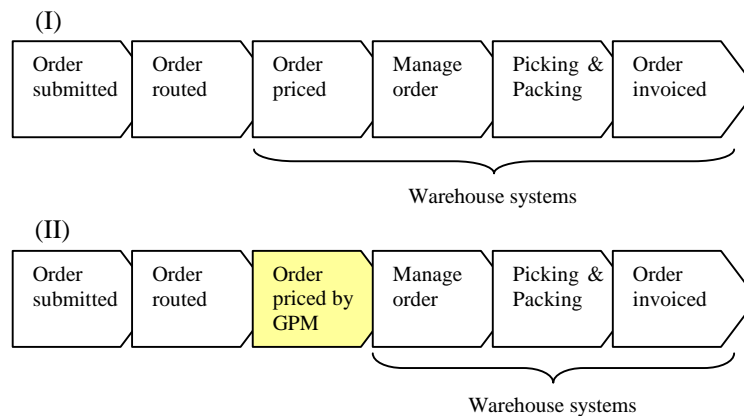
<sup>136</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>137</sup> Ibid

<sup>138</sup> Ibid

<sup>139</sup> Ibid

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**Figure 4-4:** The basic principle of the GPM in the order flow. (I) Before introduction of the GPM. (II) After the introduction of the GPM.<sup>140</sup>

As Figure 4-4 aims to illustrate the basic principle of the GPM, Figure 4-5 instead aims to illustrate its integration principle with the existing IT-infrastructure at Volvo CE. Currently, the GPM is no standalone solution. There is a prerequisite of the SOI, which consists of three levels and enables a one-stop-shop for the user at the front office level. The front-end level is the user interface. It accepts commands from the user and sends orders to the middle level. The middle level, the *Order Placement Module*, translates and communicates the order information to the back-end level, namely the warehouses' ERP-systems. A virtual *Customer Master Data* is created through this communication, which then can be shared with the GPM. *Technical, commercial* and *non-defined* information is also fed into the GPM as *Master Data* from other systems, which then can support the price management system further. The GPM even includes options to connect *additional systems* in need of integrating information flows.<sup>141</sup>

<sup>140</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>141</sup> Ibid

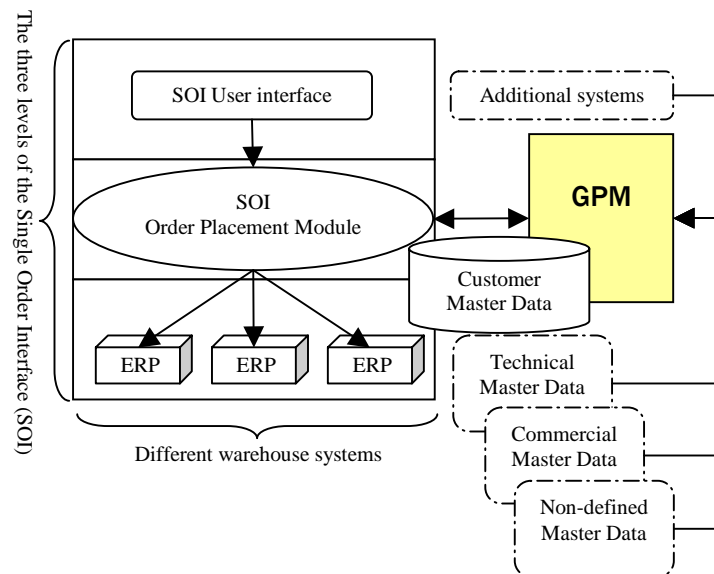


Figure 4-5: Integration principle of the GPM<sup>142</sup>.

This layout of the systems makes the GPM appear as the spider in a web. Needing and feeding information in multiple directions. The GPM can simultaneously manage different pricelists like regional and dealer suggested pricelists. It can furthermore supply the pricing manager with the relevant information for a certain pricing decision.<sup>143</sup> This information comes from the *Master Data* connected to the GPM. The data is used differently and contributes to and generates a multifaceted general picture of the price situation prior to the point where the price manager has to make a decision.

This is further enhanced by the use of a partially graphic interface, which thereby enables a small number of centrally positioned price managers to price thousands of articles in a simple way. The prices can then be distributed instantaneously to selected parts of the supply chain so that they are identical within specified market segments.<sup>144</sup>

When the GPM is connected to all the *Master Data* illustrated in Figure 4-5, the information base enables three types of pricing logics; *technical logic*, *commercial logic* and *non-defined logic*. The *technical logic* is a graphic visualization of prices for products with a specific marketing code connected to a defined technical logic. The user enters a technical reference value defined for that specific marketing code e.g. ampere hours, engine size and machine model whereupon a pricing aid is graphically displayed. The user enters a competitor's part number and through the *commercial logic*, a price suggestion is given in reference to the competitor's

<sup>142</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>143</sup> Ibid

<sup>144</sup> Interview with Anders Zederfeldt, 2006-02-14

pricelist. In the last category, the *non-defined logic*, the following models are encompassed<sup>145</sup>:

- *Similar Part* - Prices for the  $\pm 10$  closest part numbers is displayed to the user.
- *Cost Plus* - A price proposal is given to the user based on a mark-up factor table maintained in the system.
- *Kits* - The aggregated price of all the parts of a kit.

The prices set, based on this information, are often called the regional list price which then is to be distributed to the regional sales offices. They have different kinds of market specific discount systems which in turn generate different pricelists, something that also have to be managed by the GPM. The company's pricing strategy and policy are continuously affecting the pricing decisions recommended by the GPM and set by the price managers.<sup>146</sup>

### 4.2.5 The benefits of the implementation of the GPM

Perhaps the greatest benefit of implementing the price management system was the increase of transparency in the pricing process. The prices are not only more accurately set, but can be adjusted more frequently and is moreover being better rooted within the organization. The centralized system is now able to support a global pricing process and a natural platform is used to communicate the pricing information to concerned parties.<sup>147</sup> The architecture of the software, the constituents of the Business Process Management, enables rapid changes hence making it flexible and thereby adaptable to the pricing process. The centralization also eliminates the double work performed earlier within pricing analysis. Now this work is performed only once, in Global Basic Pricing. Mergers and acquisitions are also simplified since no changes in the current ERP-systems are needed, only integration with the GPM solution and its Master Data.<sup>148</sup>

A clear customer focus of the pricing process has been made possible in implementing the new IT-system<sup>149</sup>. Volvo CE is even working on a pricing strategy formulation which has a logic linkage to the general strategy. The strategy will more easily be realized, managed and directed when the pricing process is centrally controlled.<sup>150</sup>

Another benefit of the GPM is that, due to the standardized graphical interface that shows the price manager an easily understandable compilation of the underlying information, the consistency and the quality of the prices is believed to be improved since all have the same information on which to base the price decisions. Moreover,

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<sup>145</sup> Interview with Leif Ottosson, 2006-01-24

<sup>146</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>147</sup> Interview with Anders Åkerlund, 2006-02-20

<sup>148</sup> Interview with Jonas Rönnebratt, 2006-02-20

<sup>149</sup> Interview with Anders Åkerlund, 2006-02-20

<sup>150</sup> Interview with Tobias Ekström, 2006-02-20

since the prices in the system become more visible, the risk of lost revenues as a result of mistakes and frauds can be reduced.<sup>151</sup>

#### 4.2.6 Case closure

After having studied IT-based price management from the perspective of Volvo CE, the initiating part of the price management project, it is now of interest to study the next case, the case of Dynapac Compaction Equipment. Dynapac has not yet implemented any IT-based solution in its price management process but is currently evaluating a solution based on the GPM.

### 4.3 The case of Dynapac Compaction Equipment

#### 4.3.1 History and organization

Dynapac is a full line supplier and manufacturer of compaction and paving equipment. The product range includes pavers, vibratory and static rollers, trench and duplex rollers, vibratory plates, rammers and concrete equipment. Today the company is an actor on the international road-building and construction market with production facilities in Sweden, Germany, France, Brazil, and China, and with operations in more than 50 countries worldwide.<sup>152</sup> A short historical résumé reveals that the name Dynapac dates back to 1973. Prior to this, the company was called AB Vibro-Betong. The company was founded in 1933 and over the years, the ownership of the company has shifted. Currently Dynapac is owned by the investment company Altor Equity Partners.<sup>153</sup>

Altor acquired Dynapac in 2004 from Metso Corporation Oyj<sup>154</sup>. Altor has since then had the aspiration to enable a profitable growth of Dynapac, both geographically as well as by introducing new products to new market segments. In addition to growth and cost efficiency improvements, there has been a focus on optimization of the net working capital.<sup>155</sup> An improvement plan was developed, consisting of five areas; organization, supply chain, purchasing, the service organization, and price management, all of which were identified as having room for improvements<sup>156</sup>.

Dynapac is to a large extent controlling its own distribution network. The network includes production facilities and formerly also warehouses worldwide. The contact with end customers is administered through sales companies located at country level. The sales companies are fully owned by Dynapac but they are all responsible for their business results. This has consequently led to a sub optimizing culture where the holistic perspective of Dynapac has been neglected. This has also been reflected in the supply chain where there has been a lack of transparency between different business units. Part of this problem is due to that most of Dynapac's suppliers and

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<sup>151</sup> Interview with Anders Åkerlund, 2006-02-20

<sup>152</sup> www.althor.com, 2006-03-08

<sup>153</sup> Dynapac Commercial pamphlet (2005) p.1

<sup>154</sup> www.di.se, 2006-03-08

<sup>155</sup> www.althor.com, 2006-03-08

<sup>156</sup> Interview with Erik Bohman, 2006-02-23

sales companies, with a strong tradition of being independent, have been using different IT-systems.<sup>157</sup>

To start the process of integration between the business units, a central warehouse has been established in Frankfurt, Germany, which in turn is outsourced to a third party logistics provider. All incoming orders are nowadays processed through Karlskrona but are distributed from Frankfurt to the end customer at all European markets. To more remote markets, such as USA, Brazil, China and Australia there are local intermediary distribution centers, also outsourced. The warehouses deliver the goods, but the sales companies have the primary responsibility for handling customer support.<sup>158</sup>

#### **4.3.2 Pricing of spare parts at Dynapac**

Dynapac is, in its production, to a large extent using suppliers. This is easily illustrated by the fact that components currently are being bought from about 1000 different suppliers and that about 30000 in stock articles are in need of being priced. System-suppliers are used for large components such as diesel engines and hydraulic systems while articles of consumption, such as oil filters, are being purchased from commodity suppliers.<sup>159</sup>

Dynapac is currently having a market share of approximately 40% of the spare part market related to their own equipment. Of the remaining 60%, the systems-suppliers are controlling about 30% since customers are contacting the systems-suppliers directly instead of Dynapac. About 20% are serviced by manufacturers of plagiarized original parts and the remaining 10% is covered by the suppliers of consumption parts.<sup>160</sup>

The competitive advantage of Dynapac, in contrast to its competitors, is that Dynapac is able to supply a complete set of spare parts to its product range. In addition to this Dynapac can guarantee that the parts are the ones originally intended to be used, thus fulfilling the technical specifications of the products and their warranties.<sup>161</sup>

When it comes to pricing, the scattered organization has resulted in a price management process where the sales companies have been free to set prices. This process has been conducted once a year for all products at all regions and has strictly been based on cost plus calculation models.<sup>162</sup>

In the case of Dynapac, this means pricing 30000 articles on 20 markets once a year, resulting in about 600000 pricing decisions a year. To price all products independently would be an extremely time consuming and almost impossible activity.

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<sup>157</sup> Interview with Erik Bohman, 2006-02-23

<sup>158</sup> Ibid

<sup>159</sup> Ibid

<sup>160</sup> Ibid

<sup>161</sup> Ibid

<sup>162</sup> Ibid

The current solution to this problem is to group spare parts in subcategories which then are priced depending on currency movements and suppliers' price changes. With this process, a great variety of prices have been offered by different sales companies. Indirectly this has had a negative effect on Dynapac's markets share of spare parts, since the customers have felt that the prices are not well-founded.<sup>163</sup>

### 4.3.3 Expected benefits of the implementation of the GPM

Dynapac have a history of using Synchron as an IT-systems provider. Elements of the Synchron solution have been implemented to support various business processes. Dynapac first found out about the GPM by coincidence and did not really know anything about it. Finding out more and seeing the results at Volvo CE, which to a large extent operates in a similar context, they decided to test the standard GPM solution. Evaluations were to tell if it would be necessary to make company specific adjustments.<sup>164</sup>

From a strategic perspective Dynapac believes that the GPM enables a connection between the company's overall strategy and its pricing process. This will be made possible since all units in the organization will be working after the same guidelines and basing their pricing decisions on the same information. Centralizing the pricing process would also enable analyses of purchase prices and inflation information as well as making price versus volume tradeoffs centrally before any regional price negotiations would take place.<sup>165</sup>

In monetary terms, Dynapac has no hopes of saving money by the implementation of the GPM. Dynapac rather believes that the costs directly associated with the price management process will increase. The benefit will instead be realized by raising prices on parts priced too low and to lower prices on overpriced parts. With this increased precision in pricing Dynapac is hoping to regain its partly lost customer trust regarding spare parts as a result of inconsistent pricing. By doing this Dynapac will hopefully also increase its market share. With more accurate pricing, there is also a prospect of raising the overall margins on spare parts. Dynapac rates this as a secondary motive since its current margins, on average, are at an acceptable level. The profit maximization will be better leveraged by an increase of the market share.<sup>166</sup>

Regarding spare parts, Dynapac is in quite a unique situation. Since Dynapac's competitors also are suppliers to Dynapac, Dynapac has access to their pricelists. By uploading these in the GPM, Dynapac can compare its competitors' price levels and ensure an appropriate price premium. For some parts this is not possible since different parts might have different technical specifications. For these parts, where a direct comparison is not possible, Dynapac would like to be able to create a relative

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<sup>163</sup> Interview with Erik Bohman, 2006-02-23

<sup>164</sup> Ibid

<sup>165</sup> Ibid

<sup>166</sup> Ibid



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price index with similar reference articles. With this, price comparisons would still be possible.<sup>167</sup>

The aspirations of Dynapac are to be able to show the customers that the price premium paid is justified in relation to the offerings of competitors when keeping the special features of its offering in mind. The objective is to become the natural first choice of the customers when they are in a need of spare parts. Dynapac's customers are usually very dependant on their machines for making business. In the case of a breakdown this dependency usually makes price a secondary issue if the part can be delivered on short notice.<sup>168</sup>

The ultimate solution for Dynapac would be to price every product in relation to the competing products with the same or similar technical specifications. With the vast number of articles, this would be extremely time and resource consuming. Dynapac hopes that the GPM will give them a chance to increase the overall precision on the transaction level and still be able to manage it with limited administrative resources. The future intentions of Dynapac are hence to be able to analyze every transaction, thus processing information enabling studies of the actual pocket prices received. Dynapac is also having thoughts about using the GPM as a system for purchasing, being able to compare and to further analyze the consequences of a bid from a supplier.<sup>169</sup>

From an administrative point of view, there is a great potential in being able to control and distribute various pricelists. With this capability Dynapac would be able to create customer specific pricelists applicable to large customers irrespective of what sales company they choose to make their purchase from. For example, a large customer could then have its own pan European pricelist of spare parts, adjusted specifically to its distinctive relation to Dynapac. The administrative capability will also enable a better and more carefully prepared segmentation between different markets, which hopefully will slow down the cross-boarder trading and harmonization of prices.<sup>170</sup>

The intention of a central perspective is not to neglect the local knowledge at sales company level but to collect the local pricelists and then, together with the specific sales company make an analysis of the offered prices. By doing this centrally, Dynapac wants to add professional pricing competence to the sales companies' knowledge about its customers as well gain the ability to compare deviations between different markets. Currently there is no time or resources to acquire this competence at sales company level. Another benefit of the system would be if discussions concerning a certain price adjustment should arise at a later point in time. Then the discussions at least would be based upon facts.<sup>171</sup>

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<sup>167</sup> Interview with Erik Bohman, 2006-02-23

<sup>168</sup> Ibid

<sup>169</sup> Ibid

<sup>170</sup> Ibid

<sup>171</sup> Ibid

#### **4.3.4 Misgivings and potential problems**

The implementation of a price management system is still received with some suspicion within the organization. There is no one questioning that the pricing process has been neglected for too long, but on the other hand, with a centrally administered pricing process the sales companies think that their independence is threatened.<sup>172</sup>

The system would also increase the number of pricing decisions and consequently the possibilities of human errors. However, this issue is not considered to be a big drawback since the consequences will be much less severe with a holistic perspective of pricing and with the ability to centrally make price changes.<sup>173</sup>

Dynapac finds Synchron to be a provider of well thought-out technical solutions. However they think that Synchron to some extent fail to let the user take full advantage of all the intrinsic potential in its solutions. For example, Dynapac would find better documentation and manuals to be of great help.<sup>174</sup>

#### **4.3.5 Case closure**

After having studied IT-based price management from the perspective of Dynapac, as a complement to the case of Volvo CE, only the last and final case remains, the case of Alfa Laval. Currently, Alfa Laval has no ties to Synchron concerning price management. Instead Alfa Laval has conducted its own development projects regarding the same price management issues.

### **4.4 The case of Alfa Laval**

#### **4.4.1 History and organization**

Alfa Laval was founded in 1883, when Gustav De Laval together with Oscar Lamm founded AB Separator, which still is an important part of Alfa Laval. During his life, Gustav De Laval founded 32 companies and registered 92 patents. Today the company has 20 large production sites situated worldwide and has sales representation in 100 countries. Alfa Laval's operations are based on three key technologies; heat transfer, separation and fluid handling.<sup>175</sup>

The heat exchanger, which is the core product in heat transferring, can be used for heating, cooling and condensation of fluids. Alfa Laval's second business area consist of products which are used for separation of fluids, while the products offered in the third business area are focused on solutions for secure and efficient transportation of fluids within the industry.<sup>176</sup>

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<sup>172</sup> Interview with Erik Bohman, 2006-02-23

<sup>173</sup> Ibid

<sup>174</sup> Ibid

<sup>175</sup> [www.alfalaval.com](http://www.alfalaval.com), 2006-04-05

<sup>176</sup> Ibid

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Today Alfa Laval has a complex organizational structure, with 500000 article numbers, representation in 100 countries and in many different industries. In order to handle this complexity, Alfa Laval is organized in a matrix structure consisting of the dimensions; *segments*, *sales companies* and *product centers*. All production irrespective of product is managed by operations.<sup>177</sup>

*Segments* are responsible for developing the market within a customer segment, and for carrying all the products needed in their segment. Currently Alfa Laval is represented within ten defined segments; three of these are Sanitary, Food and Life Science. There are significant differences between the segments concerning such areas as tradition, history and that not all products are represented within every segment.<sup>178</sup>

The *sales companies* are, as the name implies, responsible for selling the full range of products offered, irrespectively of the customer segment or product. These companies are fully owned by Alfa Laval, but are each responsible for their own business result.<sup>179</sup>

The *product centers* can be considered an additional dimension of the organizational structure. The product managers, within the centers, have the overall responsibility for the products, from development to pricing.<sup>180</sup>

### 4.4.2 Pricing of spare parts at Alfa Laval

Alfa Laval generally has two different processes for pricing; Project pricing and List pricing. The former process is utilized for the pricing of unique customer projects while the latter is utilized for standardized or configurable products for which there is a list price. At Alfa Laval, this price list is referred to as the Recommended Customer Price List (RCPL).<sup>181</sup>

In aftermarket sales, which contribute with about 25% of the total turnover, RCPL is almost exclusively used. The exception is when complete service solutions, including spare parts and service, are to be priced. Then the Project pricing process is used.<sup>182</sup>

In Figure 4-6 the List pricing process can be studied. The first pricing decision in the process is when product management *sets the RCPL*. The idea with this pricelist is to show the highest possible price of a product in the world<sup>183</sup>. The price listed, is the gross price from which discounts then are deducted by both segments and sales companies. The next pricing decision is carried out by the segments that *set a general discount structure*. These structures can be based on many different variables, related to for example country or industry. Finally, when negotiating at transaction level, the

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<sup>177</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>178</sup> Ibid

<sup>179</sup> Ibid

<sup>180</sup> Ibid

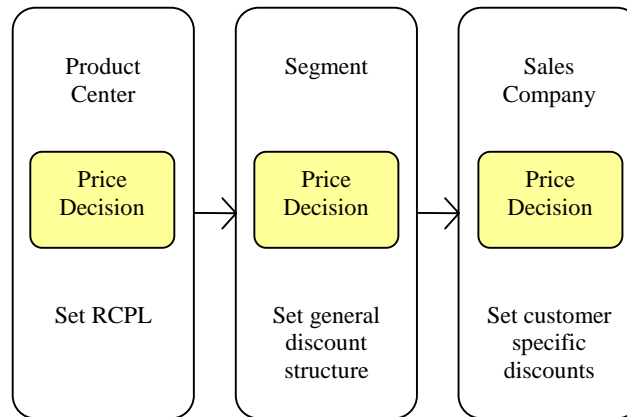
<sup>181</sup> Ibid

<sup>182</sup> Ibid

<sup>183</sup> Interview with Erno Carciun, 2006-04-03

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sales companies *set the customer specific discounts*. The room for negotiation differs depending on the customer, for different reasons like customer characteristics and competition.<sup>184</sup>



**Figure 4-6:** *The process of list price sales*<sup>185</sup>.

With few exceptions, Alfa Laval exclusively has business-to-business customers spread over many different industries. Due to the lack of transparency between the different industries and to differences in their demands, Alfa Laval's bargaining position is generally strong<sup>186</sup>. Examples of typical Alfa Laval channels to market are system builders, distributors, contractors and installers.<sup>187</sup>

### 4.4.3 Pricing improvements

One and a half year ago, a new CEO took office. When he conducted research regarding price related issues, he was unsatisfied with the results. At that time there was no one that could tell him exactly how the prices had changed during the last couple of years. He then initiated a program for changing and improving price related issues. As a result, a central Pricing Support Function (PSF) was created, with the overall task of optimizing the price to customer by coordinating the pricing structure of the whole organization. Through this new coordination, comparisons at sales company level were now made possible. However it was not, and is still not, the task of the PSF to set the price levels. Instead this responsibility was to be kept intact by the three parts of the organization, as shown in Figure 4-6.<sup>188</sup>

<sup>184</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>185</sup> Ibid

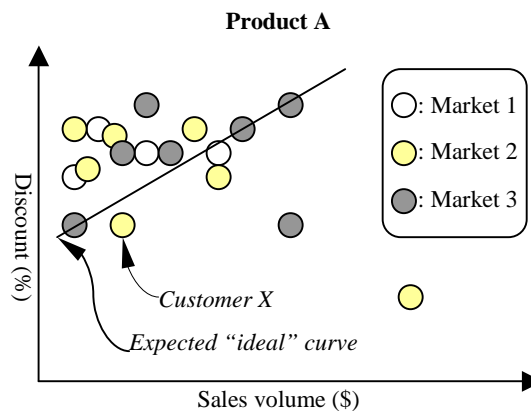
<sup>186</sup> Interview with Erno Carciun, 2006-04-03

<sup>187</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>188</sup> Ibid

#### 4.4.4 The development of an analytic tool

The overall idea of the PSF was to initiate a change in the pricing process at the lowest and most granular level of pricing rather than focusing on strategy formulations. The first step was to enable an internal benchmarking to be able to identify the “right price” of a product in a certain situation. This was performed through revealing the discounts received by different customers in different markets. The result can be presented graphically in a diagram where the x- and y-axis show the *discount* as a percentage and the *sales volume* in for example USD respectively. An example of such a diagram can be studied in Figure 4-7. The dots each represent different customers while their shading represents their market correlation. The diagram is a tool, which can be used in analyses to determine the “right price” of a product given the situation, the right transaction price.<sup>189</sup>



**Figure 4-7:** An example of the realized discounts for Product A, at three markets and with 18 customers<sup>190</sup>.

The development of the analytic tool have been lead by the PSF and the process for gathering and structuring the information on which to base the diagram has in this process been automated through the development of an IT-based system. This system can gather and use information from the different ERP-systems within the organization such as Movex, BPCS and Scala<sup>191</sup>. The information at the transaction level basically contains the list price of a product, the sales price, which the customer is and what volumes are being bought. Given this information, the total discount can easily be calculated through a subtraction of the realized price from the list price for each customer and product which then can be presented in the same form as Figure 4-7.<sup>192</sup>

<sup>189</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>190</sup> Ibid

<sup>191</sup> Interview with Erno Carciun, 2006-04-03

<sup>192</sup> Interview with Berndt Berndtsson, 2006-04-03

This information base gives a coarse overview of the discount structure since it is aggregated and thereby not able to show which discounts that are included and who has approved them. At present time, the highest possible level of precision in discounts is a division in standard and non-standard discounts. The former is correlated to the boundaries between product management and the segments while the latter rather are correlated to the transition from the segments to the sales companies in the process of using list price sales. This division of the discount structure is of importance since the purpose of the analytic tool can differ within the organization. In the sales companies, it could for example be used in order to show the effect of giving one percent more or less discount. The segments could instead use it to analyze the logic of their discounts. Since every improvement of price, if only by a single percent, can give substantial return when measured in monetary terms, it is easy to justify the development and implementation costs of the analytic tool.<sup>193</sup>

### 4.4.5 Results of the pricing improvements

With the help of this tool, measurements previously regarded as impossible, are now enabled at the transaction level. Part of the notion of the previous impossibility was that the reasons for the realized discounts unfoundedly were considered a trade secret of the sales representatives. As a result, their skills and abilities historically have not been challenged on a regular basis. If a sales representative has claimed that the price realized in a specific transaction was the best possible, they have been trusted. Thus, when introducing the new tool, it was met with mixed feelings from the sales organization, some even calling it the introduction of a Big Brother. However, after a while it was, and still is, considered a motivating tool by the very same sales representatives who previously had been doubtful. This due to the fact that the tool rather is used by the sales representatives themselves in order to get feedback on their performance, which is enabled through comparisons with others. The need to be able to measure the performance at the transaction level can be illustrated by the following quotation<sup>194</sup>

*“Companies very often have full control over lunch receipts and the costs of office utilities like pens and papers. At the same time, they give the sales representative the freedom to make unchallenged discount decisions, which could mean that they are giving away millions over a long period of time”*<sup>195</sup>.

Another result of the analytic tool is that it has identified a general tendency of less consistency in pricing to smaller accounts in comparison to the larger. They often have unmotivated, high discounts when comparing them to the volumes bought. Dealing with a smaller account does not automatically mean dealing with a less competent purchaser, but since given less attention, the smaller accounts often lack an equivalent and worthy counterpart in the selling organization. This often leaves them in a favorable position. Thereby, the largest potential of improvements is in the smaller accounts. As a direct opposite to this, the larger accounts already get a lot of

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<sup>193</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>194</sup> Ibid

<sup>195</sup> Ibid

attention which can be exemplified by the use of key account managers. Their sole task is to manage the relationship to their appointed customer and thus have the ability to commit a lot of resources to each separate negotiation.<sup>196</sup>

Thanks to the new analytic tool, the question of how the prices have changed during the last year can easily be answered, even down to two decimals.<sup>197</sup>

### 4.4.6 Setting the RCPL

The process of setting the RCPL is more or less developed depending on the product studied. There is however a general aspiration of being able to base the prices on the perceived value of the customers rather than using a cost based logic. As mentioned earlier, it is the product managers that are responsible for setting the RCPL. However, they have no general or standard system to support this process. The sheer volume of products and the time interval between the price decisions make it necessary to create groups for which price changes can be performed simultaneously. The pricelists are audited and revised at least once a year, but examples of two and even three price changes a year have occurred as a result of changes in the cost of raw materials.<sup>198</sup>

The process of today is characterized by the use of many different pricing logics between the products and segments. Some RCPL decisions is based solely on internal information such as cost structures, the age of the product and how the price of a spare part compares to the price of the system in which it takes part. The latter means that there have to be a reasonable difference between the price of a product built through the purchase and assembly of spare parts and the price of a complete product. The age of the product makes a difference in the way that the price should increase with age. This since Alfa Laval wants the customers to change to newer products and thereby freeing Alfa Laval from the costs associated with keeping old and obsolete products in stock.<sup>199</sup>

Some RCPL decisions are made based on more integrated information. For some products and segments a technical logic can be presented, which for example can show the relationship between the price and capacity of heat exchangers, both the company's own and their competitors'. Another existing pricing logic is to base the RCPL price according to the uniqueness of the product. If Alfa Laval is the only supplier of a new, unique product, this will result in a higher freedom to set price since the perceived value to a customer most likely also is high.<sup>200</sup>

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<sup>196</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>197</sup> Ibid

<sup>198</sup> Interview with Erno Carciun, 2006-04-03

<sup>199</sup> Interview with Berndt Berndtsson, 2006-04-03

<sup>200</sup> Ibid

#### **4.5 Chapter summary**

This chapter has presented three cases, which all have their own relationship to, and viewpoint of, IT-based price management. As both the theoretical framework and the empirical findings now are in place, the analysis of the similarities and differences between the cases as well as between the theoretical framework and the empirical findings is enabled.



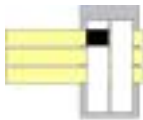
## 5 Analysis

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*This chapter aims to analyze and map the incentives for an IT-based price management system and where applicable discuss how these incentives could be used by sales representatives. Initially the incentives, consisting of needs and arguments, are dealt with at a strategic level, and thereafter consequently at the tactical and operational levels respectively.*

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### 5.1 Strategic needs



There are strong incentives for an IT-based price management system at the strategic level. The needs identified are the need for *Centralizing* and the need for system *Integration*.

#### 5.1.1 Centralizing

Taking measures or making decisions aiming to centralize parts of the everyday operations may have far reaching consequences in a company. Thereby, *Centralizing* is a strategic incentive for developing the pricing process within the aftermarket of the discrete manufacturing industry. We have chosen to categorize this incentive as a need since it is something that practically can be performed or supported by an IT-system like the GPM.

In all three cases studied, there is somebody employed with a job description including the overall responsibility for the profitability in pricing. Although their title may differ from Manager Global CST Pricing to Manager Aftermarket Division or even Project Director, their responsibilities remains the same in accordance to price management. This does not correspond with the theoretical framework, which rather claims that there, more often than not, is no one with this specific responsibility. There is however reason to believe, despite the empirical findings, that the theory is closer to the truth within the aftermarket of the discrete manufacturing industry. This is supported by the fact that a position including this responsibility just recently has been created, at least in the two latter cases.

However, since the positions actually have been created, there is evidence for the need to centralize the pricing process. This means that there is a need to have the power to control and guide the pricing process in accordance to the companies own free will and strategic intent, something that more or less explicitly is expressed in all of the three cases.

It is evident, both empirically and theoretically, that there is a strong link between the pricing process and the overall strategies of a company. In other words there are, in line with this reasoning, reason to believe that there is a need for a higher level of control, not only over the pricing process, but also over the general strategies.

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However, this is not supported by the empirical findings, other than by the fact that the companies want to create yet a stronger connection between the two.

Even though they all express the need for a centralization of the pricing process and thereby the will to resume the ability to guide and control their own process, there are differences in their courses of action. Volvo CE has got a central pricing unit, as do Dynapac and it appears as if they use the GPM as an instrument in their centralization process. Alfa Laval, with its newly established PSF, has also realized the need for IT-support in the pricing process. In contrast to the others, Alfa Laval has chosen to use an internally developed application. It seems like the need for IT-support in the pricing process has grown and developed in parallel with the need to centralize.

Thereby, the centralizing characteristics of an IT-system are of interest. In what way can IT-systems assist in the process of centralization? An important aspect is the ability to erase information asymmetries. This can be done by distributing information to prevent any significant differences in what information constitutes the decision support at the different organizational units. If a system lacks this ability it will be impossible or at least difficult to centralize the pricing process.

The need for centralization has in the three cases been identified by the central pricing units and more specifically by their respective managers. This vouch for, that these central units are the ones that should be in focus for the sales representatives when promoting the GPM. This does not mean that the need for IT-support is weaker at the lower levels of the organizations and that it would not be possible to sell the system to anyone else involved. It rather means, if there is no central pricing unit and no appointed manager, that the efforts instead should be placed at a company fulfilling these conditions.

Since the general lack of control is the primary reason for centralizing the pricing process and since the GPM could be useful in taking and creating control, it should be favorable for a sales representative to indicate this need. A simple method to indicate the lack of control is to pose the same question as the new CEO at Alfa Laval, namely how the prices have changed during the last year.

The aftermarket or more specifically the sale of spare parts is characterized by well-informed customers who make many purchases. The products are however not exclusively adapted to the different customers. In accordance to the theories, this constitutes a favorable situation for applying a central pricing policy, which in turn should mean that this market is an appropriate environment for an IT-based price management system like the GPM.

Within the need for centralization, the following opportunities, attainable by an IT-based price management system, have been identified:

- Control
- Central Pricing Policy
- Information Symmetry
- Linkage Price & Strategy

### 5.1.2 Integration

In all three cases, it has been expressed that integration of different organizational units and their business process supporting systems are of importance. Adding that the same importance is described from a theoretical perspective regarding the pricing process, it contributes to the identification of *Integration* as a strategic incentive. There are no apparent relationship between *Integration* and the strategic level, but since it involves the integration of different organizational units, which even can be separate legal entities, it seems reasonable that these are strategic decisions. The reason for categorizing *Integration* as a need rather than an argument is that it requires that someone or something has got to have a physical influence on the system, for example by the introduction of a GPM module.

The different actors in the pricing process of the three studied cases have a relationship characterized by at least partnership. In some cases the sales companies are even fully owned. In accordance to Figure 3-6 they thereby are situated in Supply Chain Stage Type III. It is thus necessary to integrate the different actors using an IOIS to reach High Integration Level 3 in order to avoid a deviation from the diagonal axis of the matrix. The GPM, due to its ability to integrate different types of systems, is by definition a High Integration Level 3 system. Therefore the GPM solution is theoretically supported as interesting to the studied companies. Accordingly, in future sales efforts, Syncron should look for companies with a high level of coordination but still lacking the corresponding level of integration in their pricing process.

By using a SOA-based system in supporting the pricing process, like the GPM solution, it is easier to introduce and connect other systems that have to be added as a result of mergers and acquisitions. The added units thereby are given the opportunity to keep their already existing and familiar systems, which can be considered a saving since no additional system investments are required and thereby the training needed for the employees are limited. This in turn means that the processes of the added systems or companies not necessarily have to change due to an implementation, but it does however present a natural opportunity for audits of both processes and IT-systems. It also means, when evaluating new systems in a procurement situation, there is a higher degree of freedom to choose a system developed and adapted to the specific needs of the company. It no longer has to choose a less effective system motivated by the fact that it should fit with the already existing systems.

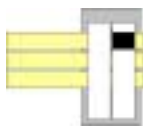
In order for a company to recognize and realize price management as a strategic capability, all available capital in the form of systems, human and social capital, not only have to be used, but rather exploited to their fullest extent. The three case companies studied, have systems capital consisting of several different ERP-systems. Since these lack a global price management module, they fail to take advantage of all the inherent potential of the systems. By introducing the ability to integrate and compile price information from the different systems, the effect of the systems can be maximized. That is, by making a less extensive investment in a price management module, the utilization rate of already made investments can be increased.

With the same perspective of systems, human and social capital in mind, the introduction of an integrating system can enable the transfer of a company's strategic capabilities between the different kinds of capital. Price management, formerly a core competence of the sales representatives, can now become a core competence of the systems. It might seem unimportant where the competencies of a company are situated as long as they exist. It should however, by integrating the competencies between the individuals and the systems, ensure a prevention of a competence loss as a result of employees leaving the company. Thereby, the image takes form of an IT-based price management system as a part of a company's core competencies.

Within the need for *Integration*, the following opportunities, attainable by an IT-based price management system, have been identified:

- Relationship Coordination
- Simplify Mergers and Acquisitions
- Pricing Process Audit
- Maximization of Utilization Rate of Made Investments
- Retention of Core Competence

## 5.2 Strategic arguments



The four arguments identified at the strategic level are; *Holistic fit*, *Process control*, *One company* and *Profit maximization*.

### 5.2.1 Holistic fit

The strategic need *Centralizing*, which includes having the power to guide the pricing process, lacks all relevance if there also is a lack of understanding of in what direction to steer. To be able to set the course of action, there is a need to create a holistic view of the environment and of how to relate to it. We have chosen to label this incentive *Holistic fit*. It belongs to the strategic level since a lack of it rapidly can lead to strategic complications. We categorize *Holistic fit* as an argument since it can drive the decision to invest in an IT-based price management system.

Included in this argument is the ability to identify general price trends over long periods of time at an industry level. This is emphasized in the theoretical framework since it enables avoidance of a negative price pressure and in its extension even price wars. This is however something not considered of much importance within the spare parts market of the discrete manufacturing industry, since the overall margins of today are regarded as sufficient. We do however believe that a good *Holistic fit* should be a strong strategic argument for implementing an IT-based price management system if it has the ability to prevent a company from being drawn into a price war by identifying price trends.

The ability to predict overall trends affecting the industry as a whole like supply and demand, costs and their drivers, can in accordance to the theoretical framework be used to operate proactively. Here we find a link to Dynapac expressing a wish of being able to set a price with respect to the stock levels and the demand for a product

at a given point in time. If this functionality would be included in the IT-system, this would be yet another way to improve and maximize the effect of already made system investments. The information needed already exist within the systems, but it is not used for this purpose. With this functionality, the price decisions would, to a greater extent, be a part of the whole and are thereby included in the argumentation for a holistic fit.

The opportunities included in the strategic argument *Holistic fit*, can be summarized as follows:

- Avoid Price Wars
- Forecasting Price Trends
- Price vs. Volume Tradeoffs

### 5.2.2 Process control

We separate the incentive of *Process control* from the formerly identified need *Centralizing*. *Process control* is defined, rather than only having the ability to guide the process, as also having the ability to guide the process in a way that the price decisions made are correct at that specific point in time. The existence of great variations in price of a single product is evidence that there have been a general lack of control over the outcome of the pricing process within the three cases studied and not only over the process as such. The lack of *Process control* and thereby also the lack of proof that the decisions made are correct is a strong argument for the implementation of an IT-based price management system. We categorize this argument as strategic since it is of importance at all the levels within an organization and most definitely can drive the decision to invest in an IT-based system. The *Process control* can in turn be divided into several subcategories.

In developing the ability of setting the “right price”, one of the strongest arguments for implementing an IT-based price management system is that it makes the most recent best practices within price management available. Thereby, internal benchmarks are enabled in accordance to price. It does not automatically enable external benchmarks but it should be a good starting point in trying to develop the pricing process. The notion of benchmarks being an important argument is supported both by the fact that it was the first effort made by Alfa Laval in improving its pricing process and secondly since it is described by the theoretical framework as appealing to managers.

It is important to keep in mind that this argumentation often is met by the counterargument that a system can become rigid and only is able to support a limited number of predefined pricing logics. We do not believe that this argument will have a great impact at the strategic level since we consider it a common knowledge, of individuals at this level, that it is impossible to control what is not measured. Without the existence of benchmarks, it is impossible to determine the “right price” of a product, thereby making the counterargument of rigidity subordinate. It is however of greater importance to keep this argumentation in mind when promoting an IT-system at the lower levels of the organization. Accordingly it will be dealt with in the upcoming section regarding *Pricing logics support* as a tactical need.

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Another counterargument which we believe could be of greater importance at the strategic level, is as raised by the theories, that the implementation of an SOA-based IT-system could be interpreted as inviting an external supplier to be a key player in the processes. Thereby, there could be a risk that the ability to set or determine a correct price could become a core competence of the supplier rather than of the company itself. It should however, when met by this argument, be preferable to emphasize that it is better to secure the competence within the systems rather than within individuals. All in accordance to what previously has been declared.

The theoretical statement, that an IT-system could save time by using predetermined routines for how and what information should be retrieved from the different ERP-systems, is not hard to believe. The time savings could be used to make proactive decisions since it gives the price manager time to lead, rather than to follow. This increases the possibility for the decisions to be more accurate at the given point in time. The argument to become proactive is strongly supported by the case of Volvo CE.

The general trend however, is that the number of price decisions constantly is increasing, thus making it harder to be proactive. This fact could easily be pointed out by sales representatives. It would be enough to illustrating how the number of price decisions has increased in relationship to the pricing resources by comparing two different points in time. This information could then be used to calculate the present time available for each decision and even how this time probably will decrease based on a simple extrapolation of the data. Given this information they should easily be able to prove that it should be impossible to make well-informed decisions before the introduction of an IT-system. Another option is to identify, by asking questions, what constitutes a normal day for a price manager. This should result in sales representatives being able to point out that there is no room in the schedule to be or even think proactively. This situation is described by Dynapac. Despite the limited resources, Dynapac wants to accomplish a higher degree of precision in pricing. In other words, Dynapac wants to free resources to be able to use them in a more initiative manner.

By distributing information within an organization, the IT-system also is taking an active role in the task of delegating the different assignments within the organization. This delegating ability is an argument compliant with the theories since the system can allocate information to the intended part of the organization, thus ensuring the decisions are being made based on the correct informational basis. This contributes to the precision in the decisions but also to ensuring that it is the right individuals making the decisions, thus yet increasing the probability of precision. In this way, it also prevents the same work from being performed in parallel by different parts of the organization. This argument is supported by Volvo CE and would most likely also be a strong argument for implementing an IT-based price management system in several other cases. The delegating effect of the system also includes plainness in what freedom of action in relationship to price that is given to each respective level of the organization. This means, that the general basis for price negotiations is strengthened by the introduction of the system.

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Another argument for the system's ability to create a process control is its ability to increase the frequency of price updates for a product. The frequency in itself does not mean that the prices are being set more correctly, but it enables a faster detection of possible mistakes due to the more frequent audits. The ability to increase the pricing frequency is something that empirically is considered worth striving for.

By introducing a system and thereby also introducing a consistency in pricing is, according to Dynapac, also a way of creating and preserving a customer trust. The seemingly easy task of being able to present the basis for a price decision can contribute to the image of a company as a serious and trustworthy supplier or partner. This information could easily be provided by an IT-system and thereby an increase of the customer trust has been identified as an opportunity of such a system. The ability to set the right price in itself, which have been stated by Dynapac as one of the primary reasons for implementing an IT-based price management system, also affects the customer trust in a positive direction.

The inherent opportunities of an IT-based price management system within the strategic argument of *Process control* can be summarized as follows:

- Best Practices
- Benchmarks
- Proactive Pricing
- Delegation
- Reduction of Double Work
- Price Error Detection
- Customer Trust

### 5.2.3 One company

The ability of a company to project the image of being one single unit can be strengthened by the introduction of an IT-based price management system and is thus an argument for investing in such a system. The image refers to the company as a whole and is not connected to any specific level of the organization. This is the reason for the categorization as a strategic argument. However, an IT-system can affect the image in two ways, internally as well as externally.

By internally demolishing the invisible walls within the organization, by sharing price related information through the GPM solution, Dynapac is hoping to prevent sub optimization. Volvo CE expresses, within the same line of reasoning, that one of the greatest advantages of implementing the GPM is the increase of transparency between the different business units within the organization. With this empirical foundation it appears as if the GPM module's ability to create transparency and visibility of price information is argument enough for implementing the GPM. It is however, not that obvious that the same level of transparency is desirable towards other actors.

In purpose of enabling a positioning towards competitors and at the same time becoming easy to do business with, it is desirable to have access to the prices of competitors as well as to minimize the search costs of customers. This indicates that it

should be preferable to have a complete transparency in all prices, internal as well as external. A counterargument could be that it could erase the profitability of a product within an industry in that it would no longer be possible to charge different prices for the same product to customers in different industries, as of today in the case of Alfa Laval. It thus requires a balancing between wanting access to the information of others and at the same time not sharing too much of ones own. By using an IT-based system and thereby at least internally being able to structure price information and thus accomplishing an internal visibility, the system should be helpful in the balance act of information sharing. This further enhances the argument for an implementation of an IT-system like the GPM solution.

Included in the argument of *One company*, is the ability of an IT-system to internally enhance the visual image of a company by for example the standardization of reports. This is supported by the theoretical framework. It is however hard to accredit the exact effect of this in monetary terms, but we believe that it is easier to underestimate than the other way around.

Thereby, the opportunities of an IT-based price management system within the strategic argument of *One company* can be summarized as follows:

- Sub Optimization Prevention
- Price Transparency
- Enhance Corporate Identity

### 5.2.4 Profit maximization

How an IT-system will affect the profitability in pricing is an incentive that can not be disregarded if the system is to be promoted at a strategic level. *Profit maximization* is thereby an important argument at this level.

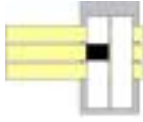
At first we found it quite surprising that none of the studied cases stated any aspirations to make cost reductions as an argument for an IT-system implementation. Instead, they used a different line of reasoning as described earlier, in calculating and estimating the increase of income made possible by the system. Naturally, it is thus our recommendation to sales representatives to, together with the potential customers, make conservative estimates of the number of products that could be identified as under and overpriced respectively. Thereafter, first separately and then for the two categories together, study the impact on the payback times when introducing small changes to the prices identified as incorrect. To make the calculations more realistic, a certain increase of sales volumes has to be introduced for those products that have received a reduction in price.

The opportunity made possible by an IT-based price management system can, within this argument, be summarized by the same name as that of the argument:

- Profit Maximization



### 5.3 Tactical needs



On a tactical level, we have identified the need for *Pricing logics support*. In addition to this, there is also a need to enhance the segmentation, increase the precision and the flexibility of the process of setting list prices. These terms are all discussed under *Sources of value*.

#### 5.3.1 Pricing logics support

The need for the ability to support price decisions on different kinds of pricing logics is caused by the increased complexity in price management. With increasing competition and globalization, companies need a pricing logic to maintain a consistency in pricing. An IT-based system can enable this by providing the price managers with the option of several logics based on relevant data.

The prices referred to in this section are list prices and the analysis of this pricing process is categorized as tactical since these prices are set with a longer time perspective than the transaction specific prices. The ability to support pricing logics is defined as a need since it is something practical that is enabled and executable by an IT-system.

Up until recently, the three case companies are or partially have been using traditional cost-plus calculations to set list prices. Products have been grouped and pricing decisions have then been made for the group as a whole. This procedure of setting list prices is a way of limiting the otherwise great amount of work that would have to be spent on pricing every product individually.

The cost plus logic is theoretically regarded as something that, if possible, should be avoided. Using this logic puts a focus on internal cost structures and with this comes the risk of a losing focus on what the customer is actually willing to pay. Thereby, the opportunities to maximize margins and turnover are limited.

In spite of this, there is still a clear empirical support for the need to be able to make price decisions based on this logic. In a global organization, an IT-based system supporting the cost plus logic also needs to manage changes in currency rates and raw material prices by quickly taking these into account when making price decisions. We believe that cost plus based pricing can be developed through the use of an IT-system. With a system it would be possible to conduct pricing of separate products rather than having to categorize them into groups.

Volvo CE is experiencing a need of having to make price decisions from a customer perspective rather than based on internal cost structures. This makes it decisive for a system to support other logics than cost plus. One procedure to determine a price founded in the perceived value of the customer is to create a value map, as described in Figure 3-4.

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The difficulties in this procedure are to make assumptions about the perceived value of a product and of how the customers perceive the price. The technical logic used in the GPM solution at Volvo CE, could be seen as an attempt to approach the value map, since there should be some kind of connection between the technical value and what the customers appreciate and thus are willing to pay.

The other dimension of the value map, the perceived price, assumes a comparison with other offerings or products. The price that a customer is willing to pay for a certain offering is obviously related to the price of similar offerings. The technical logic, as it is designed today, only uses the organizations' own products as reference objects. If competitors' offerings were to be added in the technical logic it would be closer to the value map described in the theoretical framework.

Thereby, a theoretical need for gathering competitor information can be established, which is also supported empirically by Alfa Laval. We believe that an implementation of this information into the system would be possible since the necessary information already exists within the commercial logic. The availability of competitor price information is differing between the companies. It is for example, in the case of Dynapac, relatively accessible since many of its competitors in the aftermarket of spare parts also are its suppliers.

If there is no easy access to information regarding the prices of competing products, there could be a need for some kind of web-bot in gathering the information and thereby more easily enabling comparisons to competitors. We believe that an introduction of a web-bot application into the GPM module hence could be an order-winner.

There is also a need to be able to set the price of a spare part in relationship to the price of the product in which it is supposed to be used. This is explicitly expressed by Alfa Laval, but also implicitly by Volvo CE since including the non-defined logic of Kits into its system. It has, up to this point, been a more or less homogeneous support for all the analyzed pricing logics. In the case of Alfa Laval, yet two more pricing logics are presented as a need.

The first is that there has to be a logic that in some way can relate to the age of the product, or in other words, that can relate to the different stages of the product lifecycle. Alfa Laval's desire to raise prices with product age is not compliant with the general assumption that the price of a product often has to be reduced in order for it to remain profitable. The difference is that Alfa Laval does not want to keep the profitability in all old products. It rather wants to force the customers to switch to its newer substituting products, thus reducing the responsibility and costs associated with having to keep old and outdated products in stock. This is something that probably would be of interest to other companies, which thereby automatically means that there should be a need for such a function in an IT-system.

This function could for example be built upon the technical logic already existing in the GPM solution at Volvo CE. When a new product overlaps the technical value of

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an older product, the system could make an indication to the price manager that, in addition to pricing the new product, it is also time to make a new price decision for the older product. Thus, there is a need to be able to price products in relationship to other similar products of the company. All in accordance to this line of reasoning, the opposite should be true. When there are no existing products with similar properties in either the company's own portfolio or in their competitors', it should be indicated by the system. In this situation the product is unique and there is a greater degree of freedom in making the price decision. The ability to be able to set prices in accordance to the uniqueness of the product is the second pricing logic presented as a need by Alfa Laval.

The counterargument against implementing an IT-based price management system is that it can become rigid since only able to support a limited number of predetermined logics. Basing the system on a SOA should, to some extent disarm such an argument since it automatically means that it is easily extendable and adaptable.

The opportunities enabled by an IT-based price management system can be summarized as follows:

- Reduce Aggregation
- One Product, One Price
- Value Mapping
  - Technical Logic
  - Commercial Logic
  - Kit Logic
  - Similar Product Logic
- Product Lifecycle Pricing

### 5.3.2 Sources of Value

All three case companies have many customers and a vast quantity of products that need to be priced. The ability to segment these customers and to simultaneously administer their price lists has been identified as a need in all three cases. Segmentation, just as the other two sources of value, is linked to setting list prices which, according to our definition places it at the tactical level.

By working with segmentation, the case companies hope to be able to maximize the profitability for each specific segment. An example of this is Dynapac, which is experiencing a need to create customer specific pricelists that can be applied in its worldwide dealer network.

Since it is theoretically supported, that an IT-based price management system will simplify the distribution of pricelists and the administrative processes, we believe that this need can be fulfilled by a system implementation. An additional possibility that is theoretically highlighted is the ability to use a system in order to keep track of the profitability for each segment. This further enhances the benefits of a system since a company can get more accurate feedback on the contribution from every segment.

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We can summarize the up till now identified opportunities within the *Sources of value* as:

- Segmentation
- Administration of Multiple Price Lists
- Measuring Profitability per Segment

The strategic argument of *Process control*, meaning the ability to set the right price at the right time, is at this level best represented by the need for precision in setting list prices. Since all three case companies have a vast amount of products that needs to be priced, this need is even further enhanced.

All the companies have a need to gather information that affects list prices and to make it available to the price managers. This problem is something they presently are solving or want to solve through the implementation of some sort of standardized IT-based system. In order to enable a high degree of precision in setting list prices, there is an opportunity to use an IT-based interface as a mean to visually display the information in a simple and standardized format.

Thereby there is a need for an IT-based price management system, since it enables the opportunities:

- Precision
- Graphic Support

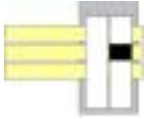
Since the case companies have a vast number of articles, the pricing process is both time and resource consuming. It is theoretically supported that an IT-based system, to a large extent can automate this process, hence increasing its flexibility. In addition to the ability to set a price, Volvo CE is expressing a need to also be able to distribute it to selected parts of the value chain. Both these activities are thus enabled or improved through an IT-based system.

By increasing the flexibility of the pricing process, companies can distribute prices and test their customers' pricing-indifference band, and thereby maximize their profitability. The risk of always trying to push the upper limit of the pricing-indifference band is the loss of customers and the potentially lost customers are usually hard to retrieve. This risk is impossible to eliminate but we find it untenable for companies not to try maximizing their profit.

Thereby there is a need of an IT-based price management system, since it enables the opportunities:

- Flexibility
- Test Pricing-indifference Band

## 5.4 Tactical arguments



The sole identified tactical argument is the argument for *Strategic pricing*, which at a first glance might seem odd, when considering the name. The reason for this will be explained in the next section.

### 5.4.1 Strategic pricing

The meaning of the incentive *Strategic pricing* is that organizations should think proactively about price management. This ability is facilitated by the use of an IT-based system. Since this process revolves around integrating information for list price setting, we choose to categorize it as tactical. We have categorized it as an argument since it is not an incentive that directly is enabled by an IT-system, but rather an approach or desirable way of thinking that drives the decision to invest in a system.

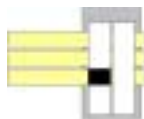
The pricing logics used by the three case companies, have been relatively simple. Dynapac, which up until now, solely have been using cost plus calculations, is a good example. Figure 3-2 is a good starting point to illustrate the inadequacy of this pricing logic. If the only available information is cost structures, all of the other components displayed in the figure are neglected. By adding additional information and thinking in terms of *Strategic pricing*, more accurate pricing can be conducted.

When conducting *Strategic pricing*, it is theoretically highlighted, that it is important not to focus too much on only one type of information and not to lose the long-term perspective. It is our belief that companies can avoid this by the implementation of an IT-system that integrates and synthesizes the three information categories for pricing. With this perspective, the price manager will get an overall picture of how to optimize prices from a strategy matrix approach.

It is our belief that an IT-system can integrate the different information categories and at the same time enable a continuous use of the familiar linear pricing approach. An IT-based system would thereby enable the opportunity:

- Information Integration

## 5.5 Operational needs



When studying the empirical findings there are no obvious incentives for an IT-based price management system at the operational level or in other words, when the list prices already have been set. Alfa Laval is already able to study the transaction level by using its self developed system and Dynapac is expressing a wish to be able to do this in the future. Volvo CE, on the other hand, finds no need for this. Despite this inconsistency, we believe that there are incentives for an IT-based system on the transactional level, both due to the support in two out of the three cases and because of the strong theoretical support.

We believe that one of the major reasons for Alfa Laval to focus on the transaction level of price management, as opposed to Volvo CE, is due to its higher degree of diversity in end customers. Volvo CE is selling its products on many different geographical markets, but the end customers are in most cases within the construction industry. Alfa Laval on the other hand, is also selling its products on many different geographical markets but also in many different industries. This creates a need for the ability to see the discount structures for the different industries, since the deviations in discounts are greater between the industry segments than within.

Our analysis of this is that there is a greater need for an IT-based system at the transaction level if the company has customers in different industries or segments. This is basically the equivalent of the earlier identified need for improvements in segmentation. The needs that we have identified are *Precision* in transaction pricing and *Feedback* to the sales representatives or those determining the final price at this level.

### 5.5.1 Precision

To secure a high level of profitability it is imperative to keep a high level of precision in every decision. To achieve this precision, there is a need to collect intelligence to serve as the basic data in decision-making. Intelligence incorporates the need to collect relevant information, this meaning information that is related to different kinds of discount structures. It could also incorporate, as theoretically suggested, information regarding product substitutes, their prices and information regarding customer purchase history. It has empirically been shown that the need for information, in order to get a rough sketch of the discount structures and thereby the profitability in each transaction, is rather limited. Therefore we believe that an IT-based system easily would be able to manage and administer this process. To achieve the accuracy described in the pocket price waterfall would be slightly more complicated but yet not impossible. In addition to the need for keeping control over the discount structures, there is also a need to increase the precision in the structure itself, that is, to be able to present a better segmentation of the different discounts. This since the different discount entities can be used for different purposes by different organizational units as described in the case of Alfa Laval. The problem to be solved by an IT-system is then to collect all the information, which in one way or another, affects the discount structure.

The ability to identify and follow-up already made mistakes is also empirically expressed as a need. One example is Alfa Laval which has realized that there is a general tendency of less consistency in pricing toward smaller accounts in comparison to the key accounts. This has enabled an adjustment of the discounts in proportion to the value of the account. We believe that this information would be even more useful if it could be presented in real-time and thereby identify unprofitable pricing decisions before they actually take place. It might be hard to enable this since every piece of information might not be available when the decision is actually made. An example of such information could be what discount level customers are entitled to as a result of their yearly purchase volumes. If the need to collect information in real-time will get an increased importance, this will also

increase the need for more accurate discount forecasts based on customer purchase history. It would also be possible that the forecasts, just as the theory prescribes, would be conducted in real time surveys towards the customers of interest.

If the need for intelligence incorporates the activity of collecting information, the need for creating a decision support is about presenting this information in an understandable way and thus enabling a well-informed price decision. In this context, well-informed means having access to information enabling a focus on the actual transaction price rather than the list or invoice price. Even if a system is not intended to be used in an executing function, that is determining the actual price, but rather to make a follow-up of already made decisions, we believe that it is important to display the information both visually and in figures. This could be useful due to the fact that different individuals have different ways of acquiring and interpreting information.

One way of designing an interface would be to utilize the picture of a pocket price waterfall, in combination with a diagram over the realized discounts for different markets and customers. The need for having a standardized visual interface that always looks the same irrespective of where in the organization the price manager is situated is supported by the strategic argument of *One company*.

Within the need *Precision*, there are three opportunities that are enabled through an IT-based price management system. These are:

- Decision Support
- See Transaction Price
- Discount Forecasting

### 5.5.2 Feedback

At a first glance, feedback is not an obvious need, but would rather be categorized as an argument for the implementation of an IT-system. The argument would then be to enable a stricter control of the sales representatives at an operational level, and thereby partially fulfilling the opportunity of strategic control. The risk associated with this approach is that it most likely would be considered as threatening by the sales representatives. Not surprisingly, this is also empirically supported. More unexpectedly is the effect at Alfa Laval, where the sales representatives rather are positive to the feedback given to them by the system. A prerequisite for this is however that the feedback can be retained and used by the sales representatives themselves rather than by someone at a higher level of the organization. The feedback can, for example, be a result of comparisons to colleagues, enabled by an IT-system. Expressed in other terms, the need for feedback seems to be a latent need at the operational level. Therefore, we have chosen to categorize *Feedback* as a need rather than an argument.

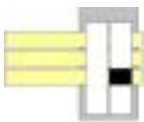
Another kind of feedback that is enabled by a system is instant feedback, presented close to the actual determination of the price. For example, if a company's pricing policy is to always have lower prices than a competitor, the person setting the price should instantly be reminded of this fact if he/she is about to set a price that deviates from the policy. With the implementation of an IT-based system, this could easily be

solved, displaying a reminder every time this happens. The message should not be anything but a reminder since the final pricing decision always should be a decision of a person and not of a system. Corporations that already have a clear pricing policy would probably appreciate this function and the effect for corporations without a policy would probably be even greater. To have a clearly outlined pricing policy would, according to Dynapac, also help to establish a connection between the overall company strategy and the specific pricing decisions.

Within the need for *Feedback*, an IT-based system could enable the following opportunities:

- Comparisons to Colleagues
- Error Prevention
- Strategy Visualization

## 5.6 Operational arguments



The only identified incentive that could be categorized as an argument at the operational level is the argument of *Negotiation*.

### 5.6.1 Negotiation

The argument for investing in an IT-based pricing system would, at an operational level, first and foremost be that it can strengthen the sales representatives' power to negotiate. This since it can fulfill the need for intelligence, provide a clear decision support and give qualitative feedback. Thereby the sales representatives would, as expressed empirically, have better arguments to justify a price level in relation to the components of the offering.

An IT-based system would thereby enable the opportunity to:

- Justify Price

## 5.7 Chapter summary

In this chapter, the incentives for an IT-based price management system have been mapped by naming and appointing each incentive to a specific field within the incentive matrix. Accordingly, they have also been analyzed and as a result, one or several opportunities of implementing an IT-based price management system have been identified.

Where applicable, a discussion has been held of how the incentives and their corresponding opportunities could be used by sales representatives. A further discussion regarding the results can be found in the next and final chapter.



## 6 Results and discussion

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*This chapter aims to discuss and summarize the results of this master thesis. The results are divided into two separate sections, the contributions to the general body of knowledge regarding the use of IT-systems in price management and the specific contributions to Syncron. In addition, it also presents suggestion for future research.*

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### 6.1 General contributions

#### 6.1.1 Understanding global price management

The results contribute to the general body of knowledge regarding the use of IT-based systems in price management. An important part of the results is the presentation of a theoretical framework which combines price and organizational issues with IT. With its integrative character it creates a structure in the cross-functional area of price management, and can thus provide actors of different background with the same perspective.

#### 6.1.2 Proof of a SOA-based application

In addition to providing an integrative theoretical framework, the applicability of the identified theories has been made visible through the description of the GPM solution, thus creating a practical orientation of price management theories. This description has shown how theories could be taken into practice by the use of an IT-based system.

Furthermore, since the IT-system is based on a SOA, it contributes to, and complements the somewhat insufficient contemporary evidence of this architecture. The usefulness of the GPM solution has been shown and thus also the usefulness of SOA. The fact that the GPM is the foundation of a fully operational system and that it can be used in the complex and complicated activity of price management, makes it easy to believe that IT-systems following this architecture successfully could be implemented within other areas.

However, just as it should be kept in mind that an IT-system is only one part of developing a strategic capability like price management, this is also true for other areas. That is, investments and implementations of systems capital have to be complemented with social and human capital to be able to reach their full potential. In line with this reasoning, this is even more accurate when considering SOA-based applications since they are not standalone solutions. There is a prerequisite for other applications in order for them to be operable.

### 6.1.3 Mapping the incentives

The critical issues identified in the theoretical framework are complemented by the empirical findings, which have resulted in the analysis and mapping of the incentives for IT-based price management. In addition to identifying the constituents of the map, the incentives comprised of needs and arguments have also been allocated to either the strategic, tactical or operational level. The map can be studied in Table 6-1.

	Needs	Arguments
<b>Strategic level</b>	<ul style="list-style-type: none"> <li>➤ Centralizing</li> <li>➤ Integration</li> </ul>	<ul style="list-style-type: none"> <li>➤ Holistic fit</li> <li>➤ Process control</li> <li>➤ One company</li> <li>➤ Profit maximization</li> </ul>
<b>Tactical level</b>	<ul style="list-style-type: none"> <li>➤ Pricing logics support</li> <li>➤ Sources of value</li> </ul>	<ul style="list-style-type: none"> <li>➤ Strategic pricing</li> </ul>
<b>Operational level</b>	<ul style="list-style-type: none"> <li>➤ Precision</li> <li>➤ Feedback</li> </ul>	<ul style="list-style-type: none"> <li>➤ Negotiations</li> </ul>

**Table 6-1:** *The map over the incentives for IT-based price management.*

The division of the incentives in relation to the two dimensions is strongly supported and motivated throughout the analysis. However, there is no specific explanation to the choice of the actual names of the different needs and arguments presented. We do not find this necessary, simply because it is only a matter of semantics. The names of the incentives might differ, but their meaning will remain the same.

It could seem that there is an inconsistency within the category of needs. At the tactical level, precision is identified as a part of the sources of value just as well as it is identified as a need at the operational level. Since there is a difference in precision in setting list prices and precision in setting transaction prices, the supposed inconsistency is not an issue.

A question, which could be asked to challenge the results presented in Table 6-1, is whether it is complete and includes all possible incentives for an IT-based price management system. There is however no claim of the map being complete. In order to establish and identify all needs and arguments for an IT-based system, would first and foremost require an extensive use of such a system over a long period of time. This because it is not until a complete implementation and a longtime usage, all synergies correlated to the system can be identified. In additions to this, there is for the same reason a requirement of implementations in multiple cases. None of these prerequisites are fulfilled empirically, which thereby makes it highly improbable that all needs and arguments could be found on the map over the incentives.

In other words, it is at present time impossible to design a fully comprehensive map. Since the cases are of different character and the findings have a strong theoretical support, we do however believe that the main constituents of the map have been identified. The results could probably be refined if additional cases were to be added

to the study. Given the limited timeframe and the already high complexity of price management, we believe that these changes, at this stage, only would have increased the complexity of the results and thereby reduced their applicability.

It should however be pointed out that there is a difference in the character of the needs and arguments identified between the cases studied. The first two cases mainly support the constituents at the two upper levels, the strategic and tactical levels while in the last case, most incentives have been allocated to the operational level. The mapping thereby has become more complete by the introduction of the third and last case. This is the reason for our belief that, if additional cases should be studied in future research, there should first and foremost be a focus on identifying incentives at the operational level, thus enhancing it further.

## **6.2 Contributions to Synchron**

### **6.2.1 Increasing the general understanding**

The theoretical framework helps to bring order in the diverse area of price management, thus increasing the understanding within Synchron of what theoretically constitutes good price management. The increased understanding is valuable since it can be used to proactively identify future needs of potential customers and to formulate arguments helpful in the promotion of the GPM solution. In addition, it can also be used as an inspirational source for future developments.

Another result or contribution is the condensed description of the GPM solution. This is helpful to Synchron for two reasons. It makes it easier to describe the solution to potential customers as well as it could be used in the training of new sales representatives. We also believe that by providing an external view of the GPM solution, undiscovered attributes and areas of application can be identified and used by the employees of Synchron.

The empirical findings make a contribution to Synchron by presenting a profound description of the present needs and arguments for implementing an IT-system for price management based on a SOA. We believe that the gathering of primary data, to a greater extent, would have been inhibited if conducted by employees of Synchron rather than by us as students. The capacity as students naturally increases the outspokenness of the interviewees. Furthermore, an externally conducted investigation contributes to new and untainted views of customers' incentives for IT-based price management.

The general understanding of the empirical needs and arguments can have the same effects as the increased theoretical understanding by enabling a proactive identification of future needs of potential customers as well as inspire further product development.

The condensed theoretical overview, the description of the GPM solution and the empirical findings, together contribute to the increase of the general understanding of IT-based price management within Synchron. In addition to only increasing the general

understanding, the basis for this understanding is by the existence of this master thesis available to all of Synchron's employees. In other words, the knowledge is preserved within the system, thus preventing the potential risk of a knowledge leak due to individuals leaving the company. In this way, this master thesis can help Synchron to develop price management as a core competence.

### **6.2.2 Mapping the incentives**

The most concrete contribution to Synchron is the mapping of the incentives for an IT-based price management system. These incentives have been identified by using both empirical and theoretical findings. It thus consists of both experienced incentives and documented theories of good price management. The results are of qualitative character, thus not expressed in quantifiable measures, and should mainly be seen as a basis for understanding of what opportunities are enabled by the GPM solution.

The qualitative map can be seen as a generic model, which could be customized to fit the existing supportive tools of a sales organization, resulting in different tools for different companies. The customization requires a quantification of the incentives with their corresponding opportunities. This customization has been done for Synchron, leaving them with a supportive tool over the most promising incentives, which could be used interactively during workshops with potential customers. However, since not considered of general interest and since not included in the purpose, it has been omitted.

It should however be noticed that some of the incentives contains a description of opportunities not yet realizable by the GPM solution. These have been added to illustrate the full potential of an IT-based system in price management without the constraints of an existing solution. This means that the map can not be applied directly by the sales representatives without a thorough evaluation of its contents. The distinction of which constituents of the map that presently is achievable should however easily be recognizable through a dialogue between the sales representatives and the product manager.

A quick glance at the mapping reveals a slight overweight to the incentives at the strategic level. This is something that even should be preferable and helpful in trying to make a sale since there is a high probability in that the final investment decision lies with someone at the strategic level within the customer organization.

### **6.3 Discussion and suggestions for future research**

Approaching the end and looking back at what has been, it is easy to acknowledge price management as a truly complex activity. It seems like problems related to how products should be priced and how these prices should be distributed consumes a considerable amount of time for the price managers within the aftermarket of the discrete manufacturing industry. The fact that they are starting to take notice of global price management systems, common for the whole organization, is highly compatible with the assumption that price management should be worth extensive efforts and hence extensive investments. The solution studied can however solve these pricing

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problems by taking advantage of already made investments and thus reducing the accompanying costs of implementing a general ERP-system.

Continuing the work of this master thesis could be done, as discussed above, by increasing the number of cases studied. Primarily this should be done to further validate the identified opportunities of an IT-based system for price management at an operational level but also to complement the presented list of opportunities.

It is also of interest to study the incentives for an IT-based price management system, not only for spare parts, but for the discrete manufacturing industry as a whole. There would probably not be any significant differences in the results since it still involves the pricing of discrete products. In other words, we find it highly probable that price management should be a troublesome issue for all price managers, not only for those involved in the aftermarket.

A further possible development would be to study the manufacturing industry in general and thereby also including the process industry. Companies within this industry, since lacking discrete products, probably have other pricing logics on which to base pricing decisions and thereby also probably would require the existence of these logics within an IT-system. Therefore, it is of interest to study which adoptions that would have to be made to the system in order for it to attract attention from these companies.

To further increase the understanding of IT-based price management, it would be of interest to study which the incentives are, outside the manufacturing industry. We find it highly probable that there, within these industries, should be other considerations regarding price management since there are no physical products that costs could be allocated to. What are the differences?

That is the reason why we believe that it should be of interest to Synchron to study which prerequisites that have to be fulfilled in order for a company to be categorized as a potential customer. Is it possible to establish a list over these prerequisites?

Another discussion is whether there are any general threats to Synchron or its price management solution. We have, during the course of our studies, not come across any competitors that as of today can provide a similar price management solution. This is most definitely a favourable position for Synchron, but there is no time to relax. Since there are no significant barriers to entry into the market and since it also seems like the potential customers are the closest competitors, the position is resting on an unstable foundation. Thereby, it should be of interest to study the experienced transaction uncertainties of the potential customers. Such a study could probably help in reducing the threat of customers developing their own price management systems.

Substitute products could also pose a threat by circumventing the entire problem of enabling communication between different ERP-systems. This threat is, as discussed above, currently represented by the companies' transition to one single system. If an industry standard were to be established, for example of how to label products, it

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would at the same time make an important functionality of the existing solution excessive. What would the effects be?

The last potential threat worth discussing is legal issues. Price strategies are, in one way or another, currently affected by legislation. The question is how it will change, for example as a result of the creation and development of trade unions. It is hard to predict how this development will progress, but it is probable that it will have an impact on price management and thereby also on IT-based price management systems.

The key components of this discussion can be summarized as the following suggestions for future research:

- Continuing this study by the introduction of additional cases.
- Identify the incentives for other industries.
- Identify the transaction uncertainties of potential customers.

## References

### Published references

- Andersen, Ib (1998) Den uppenbara verkligheten – Val av samhällsvetenskaplig metod, Studentlitteratur, Lund, Sweden.
- Baker, W. L., E. Lin and M.V. Marn (2001) Getting prices right on the web, McKinsey Quarterly, No. 2, pp. 54-64.
- Bernhardt, M. and O. Hinz (2005) Creating Value with Interactive Pricing Mechanisms – a Web Service-Oriented Architecture, E-Commerce Technology, pp. 339-346.
- Benders, J., R. Batenburg and H. van der Blonk (2006) Sticking to standards; technical and other isomorphic pressures in deploying ERP-systems, Information and Management, Vol. 43, No. 2, pp. 194-203.
- Birgersson, Jakob and Sebastian Sjöberg (2004) Soft Products are Hard to Sell – Capturing the Market Potential of Sync Solutions, KFS, Lund, Sweden.
- Bjerke, B. (1981) Some comments on Methodology in Management Research, studies in the Economics and Organization of Action, No. 8, Department of Business Administration, University of Lund, Sweden.
- Bruce, Margaret and John Bessant (2002) Design in Business – Strategic Innovation Through Design, Pearson Education Limited, Harlow, Essex, England.
- Clausen, C. and C. Koch (1999) The role of spaces and occasions in the transformation of information technologies - lessons from the social shaping of IT systems for manufacturing in a Danish context, Technology Analysis & Strategic Management, Vol. 11, No. 3, pp. 463-482.
- Crawford, C. H., G. P. Bate, L. Cherbakov, K. Holley and C. Tsocanos (2005) Toward an on demand service-oriented architecture, IBM Systems Journal, Vol. 44, No. 1, pp. 81-107.
- Duke, C. (1994) Matching Appropriate Pricing Strategy with Markets and Objectives, Journal of Product and Brand Management, Vol. 3, No. 2, pp. 15-27.
- Dutta, S., M. Bergen, D. Levy, M. Ritson and M. Zbaracki (2002) Pricing as a strategic capability, MIT Sloan Management Review, Vol. 43, No. 3, pp. 60-67.

## Global Price Management

---

- Dyer, J. H., D. S. Cho and W. Chu (1998) Strategic Supplier Segmentation: The Next "Best Practice" in Supply Chain Management, *California management review*, Vol. 40, No. 2, pp. 57-77.
- Dynapac Commercial pamphlet (2005), Provided by Carsten Weber, Customer Support Management, Synchron International AB
- Eisenhart, K. M. (1989) Building Theories from Case Study Research, *Academy of Management Review*, Vol. 14, No. 4, pp. 532-550.
- Eriksson, Lars Torsten and F. Wiedersheim-Paul (2001) Att utreda, forska och rapportera, 4. uppl., *Liber Ekonomi/Almqvist & Wiksell*, Malmö, Sweden.
- Ford, David, Pierre Berthon, Stephen Brown, Lars-Erik Gadde, Håkan Håkansson, Peter Naudé, Thomas Ritter and Ivan Snehota (2001) *The Business Marketing Course – Managing in Complex Networks*, John Wiley & Sons, Ltd., Chichester, West Sussex, England.
- Gilmer, B. (1997) Metadata: What is it, and why do you care?, *Broadcast Engineering*, Vol. 39, No. 3, pp. 24-25.
- HsiuJu, Y. R. and C. Sheu (2004) Aligning ERP implementation with competitive priorities of manufacturing firms: An exploratory study, *International Journal of Production Economics*, Vol. 92, No. 3, pp. 207-220.
- Lal, R. (1986) Delegating Pricing Responsibility to the Salesforce, *Marketing Science*, Vol. 5, No. 2, pp. 159-168.
- Lamont, J (2006) Service-oriented architecture: a way of life, *KM World*, Vol. 15, No. 2, pp. 20-21.
- Marn, Michael V., Eric V. Roegner and Craig C. Zawada (2004) *The Price Advantage*, John Wiley & Sons, Inc., Hoboken, New Jersey, United States of America.
- Monroe, Kent B. (2003) *Pricing – Making Profitable Decisions*, Third edition, McGraw-Hill/Irwin, New York, United States of America.
- Nagle, Thomas T. and Reed K. Holden (2002) *The Strategy and Tactics of Pricing – A Guide to Profitable Decision Making*, Third edition, Prentice Hall, Pearson Education, Inc., Upper Saddle River, New Jersey, United States of America.
- Nilsson, C-H. (1994) *Methodological Reflections – Extended Version*, Working Paper, Department of Industrial Engineering, Lund University.
- Patton, E. and S. H. Appelbaum (2003) The Case for Case Studies in Management Research, *Management Research News*, Vol. 26, No. 5, pp. 60-71.



## Global Price Management

---

- Schary, Philip B. and Tage Skjøtt-Larsen (2001) *Managing the Global Supply Chain*, Second edition, Copenhagen Business School Press, Copenhagen, Denmark.
- Schmidt, M-T, B. Hutchison, P. Lambros P and R. Phippen (2005) *The Enterprise Service Bus: Making service-oriented architecture real*, IBM Systems Journal, Vol. 44, No. 4, pp. 781-797.
- Shah, R., S. M. Goldstein and P. T. Ward (2002) *Aligning supply chain management characteristics and interorganizational information system types: An exploratory study*, IEEE Transactions on Engineering Management, Vol. 49, No. 3, pp. 282-292.
- Sherer, S. A. and B. Adams (2001) *Collaborative Commerce: The Role of Intermediaries in e-Collaboration*, Journal of Electronic Commerce Research, Vol. 2, No. 2, pp. 66-77.
- Shore, B. (2001) *Information Sharing in Global Supply Chain Systems*, Journal of Global Information Technology Management. Vol. 4, No.3, pp. 27-50.
- Stuart, D., D. McCutcheon, R. Handfield, R. McLachlin and D. Samson (2002) *Effective case research in operations management – a process perspective*, Journal of Operations Management, Vol. 20, pp. 419-433.
- Swaminathan Jayashankar, M. and R. Tayur Sridhar (2003) *Models for supply chains in e-business*, Management Science, Vol. 49, No. 10, pp. 1387-1406.

### **Oral references**

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### **Electronic references**

[www.alfalaval.com](http://www.alfalaval.com)

[www.altor.com](http://www.altor.com)

[www.di.se](http://www.di.se)

[www.synchron.com](http://www.synchron.com)

[www.volvo.com](http://www.volvo.com)

[www.xml.com/pub/a/ws/2003/09/30/soa.html](http://www.xml.com/pub/a/ws/2003/09/30/soa.html)

Hao H. (2003) What Is Service-Oriented Architecture

## Appendix 1

### Intervjufrågor till Volvo CE och Dynapac

#### Frågor inom området för industriell marknadsföring:

- När insåg ni att ni hade ett behov av ett IT-baserat prishanteringssystem?
- Vad var den utlösande faktorn till att ni tog kontakt med Syncron?
- Vilka andra tänkbara leverantörer av ett sådant system har ni identifierat?
- Vilka besparingar och utgifter medförde systemet?
- Hur kan värdet av ett system mätas?
- Hur påverkade konkurrenssituationen behovet och därmed beslutet att införa ett system?
- Visste ni vad ni ville ha?

#### Vilka organisatoriska samordningsbehov fanns?

- Hur många olika ägandeförhållanden fanns/finns det i er värdekedja?
- Var behoven av ett IT-system relaterade till er matrisorganisationsform?
- Fanns det konsensus i värdekedjan om att ett system behövdes?
- Vilka motargument fanns?

#### Vilka prishanteringsbehov fanns?

- Vad önskade ni uppnå på industrinivå med ett system?
- Vilka behov fanns att lösa på produkt/marknadsstrategisk nivå?
- Vilka allmänna fördelar kunde ni se att ett IT-system skulle kunna innebära?
- Fanns det ett behov av att homogenisera prissättningen i organisationen?

#### Fanns det andra behov än de relaterade till price management och supply chain management?

- Kan du se fler teoriområden än supply chain och price management som är kopplade till behovet av ett IT-system?
- Är ett IT-system ett sätt att utveckla ert erbjudande och därmed en del av er marknadsföring?

#### Vad är det framtida behovet av ett IT-baserat price management system?

- Vilka är de största bristerna med dagens system?

## Appendix 2

### Intervjufrågor till Alfa Laval

#### Prissättningsprocessen av reservdelar

- Hur många reservdelar har ni som är i behov av prissättning?
- Vad är era kostnader för att sätta och administrera priser?
- Finns det en formulerad prisstrategi kring marknaden för reservdelar?
- Hur ser organisationen ut kring prissättning?
- Var fattas prissättningsbesluten? Centraliserat – Decentraliserat?
- Hur ofta sker prisuppdateringar?
- Hur administreras och distribueras priserna? Inom vilka system?
- Har det hänt att en produkt har prissatts fel? Över- och underprissatt?
- Utifrån vilka grunder fattas priserna?
- Vilken information tillhandahålls? (Alla tre nivåer)
- Är grunderna (datan) likadana i hela världen?
- Hur ser prissättaren informationen? (listor, dator, papper, antal)
- Finns det standardiserade instruktioner för prissättning?
- Segmenterar ni era kunder inom olika marknader? Hur i så fall?
- Ger ni något mervärde till reservdelsaffären i förhållande till konkurrenter?

#### Värdekedjan – produktion, försäljning och distribution

- Hur många aktörer är involverade?
- Hur många affärssystem finns i organisationen?
- Hur påverkar dessa samordningen av prissättningen?
- Har det uttryckts ett behov av att förbättra denna samordning?
- Vad har ni för relation till aktörerna?
- Förekommer det intern konkurrens mellan lager, avdelningar, säljbolag eller liknande?
- Har ni samma pris till kund oberoende av leveransställe?
- Har ni samma pris till kund oavsett vilket lager som levererar?

#### Marknadsanalys – Five Forces

- Inträdesbarriärer
- Förhållande, köpare säljare
- Hot från substitut
- Har ni några konkurrenter i marknaden för reservdelar?

#### Framtida förbättringspotentialer

- Finns det ett behov av att revidera er prissättningsprocess? När gjorde det senast?
- Vad innebar den senaste revideringen?
- Ser ni själva någon potential i att förbättra er prissättning av reservdelar?