

---

# Pricing from a 4PL perspective

---

Maria Björholt and Louise Kjellberg

Master thesis at Lund university, Faculty of engineering  
Industrial Engineering and Management

Supervisor: Andreas Norrman

Lund, June 2011





## **Acknowledgements**

This master thesis is the final part of our Master of Science in Industrial Management and Engineering at Lund university, Faculty of engineering. The study has been conducted with the aim of fulfilling the request of the principal Schenker Dedicated Services AB. The work throughout the thesis has been under guidance of the Department of Industrial Management and Logistics at Lund University, Faculty of Engineering.

We would like to direct a special thank you to the personnel at Schenker Dedicated Services AB, and to our supervisor Jenny Sjöholm in particular. In addition we would like to thank all selected case companies for the time and effort that they have spent in helping us fulfill the purpose of this thesis.

We would also like to thank our supervisor from the Department of Industrial Management and Logistics, Dr. Andreas Norrman, for his devotion and guidance throughout the project.



## Abstract

<b>Title</b>	Pricing from a 4PL perspective
<b>Authors</b>	Louise Kjellberg and Maria Björholt, <i>master students at Industrial Engineering and Management, Lund university</i>
<b>Supervisors</b>	Jenny Sjöholm, <i>Logistics Developer, Schenker Dedicated Services AB</i>  Dr. Andreas Norrman, <i>Professor in Engineering Logistics, Department of Industrial Management and Logistics, the Faculty of Engineering at Lund University</i>

### Problem discussion and purpose

The interest for outsourcing of logistics services has grown in the last decades, and therefore the fourth-party logistics market (4PL) is expected to grow significantly.

However, although the market is expanding, the 4PL provider faces competition, not only from other third- or fourth-party logistics providers, but also from companies that provide substitutes to some extent, e.g. IT, supply chain consulting, freight-bill auditing and freight procurement. In order to stay competitive, it is therefore important to know how these companies price their services.

The purpose of this study is to create knowledge about different pricing methods for the 4PL industry, and to discuss potential pricing methods for the 4PL provider that is the client of this thesis, Schenker Dedicated Services AB (SDS).

### Methodology

The research started with a literature review. Then, six case studies were conducted with the aim of finding convergent patterns of how different industries price their services. All of the cases included in the study offer services that are substitute to SDS. Finally, the findings were applied on SDS's fourth-party logistics context, in order to see if there is any indication that SDS should use other pricing methods than the one currently used.

### Frame of reference

The frame of reference introduces three main fields. The first field is the most common pricing methods used within either the logistics services industry or by companies that offer services that are substitutes to SDS's services. The second area of interest is service classification. This part introduces a number of service characteristics that will be used in the cross-case analysis. The third part investigates the third- and fourth-party logistics market. The intersection of the three fields respectively is discussed in pricing of services and pricing of logistics services.

### Conclusion

The findings of how different substitutes to SDS price their services are presented below. In general, cost-plus contracts transfer the risk to the customer while a fixed-price or an outcome-based agreement transfers the risk to the provider. The provider's motivation to perform is high for outcome-based contracts, whereas no such incentives are created for a fixed price or cost-plus.

### ***Supply Chain Consulting***

Cost-based pricing or customer perceived value pricing is used within consulting, however, the latter is believed to be the ideal pricing method. Cost-plus pricing is, nevertheless, industry standard. Both companies charge for consulting either with a fixed price or with a running cost per hour.

### ***Information & Technology***

One of the case companies prices its services based on the customer perceived value, whereas the other company uses a market-based pricing method. The difference can be explained by the cross-case analysis that shows that services that are more customized and complex tend to favour customer-perceived value pricing, whereas services that are more standardized and simple are more likely to be priced according to the market. The pricing method that is industry standard seems to vary depending on how complex and customized the service is. A transaction-based payment principle is preferred, since it is more profitable than a yearly fixed price.

### ***Freight-Bill Auditing***

The freight-bill auditing company that participated in the case study uses cost-plus to price its services. For low volume customers or standardized services, however, the price level is partly influenced by the market. The customers are charged based on the number of transactions that they execute per month. Overall, the pricing within the industry is ad-hoc.

### ***Tendering and Freight Procurement***

The service is very straightforward and the savings can easily be measured, which allows for gain-sharing contracts. According to the freight procurement company that participated in the case study, gain-sharing is thus considered to be industry standard for freight procurement projects.

### ***General patterns across industries***

The cross-case analysis shows that services that have a high degree of complexity and customization either use a customer perceived value pricing, increasingly want to do so or indicated that it would be the ideal pricing method.

### ***Indications for SDS***

Based on the cross-case analysis, and the fact that SDS offers services that are complex and customized in nature, we suggest that SDS should investigate whether customer perceived value pricing could be used for SDS's services.

We also suggest that SDS must be better at communicating the value that they create as a 4PL provider. One way of doing so is through the pricing method used. We believe that customer perceived value pricing would fulfil that purpose. However, if SDS finds that customer perceived value is a difficult approach to pursue since it often is difficult to estimate and quantify, we suggest that SDS should consider other value-based pricing methods that are more established within the logistics industry, such as gain-sharing or performance-based pricing. We believe that the incorporation of such pricing methods in the all-in price would allow for SDS to better communicate the value that is created and, hence, would distinguish SDS from the 3PL providers on the market.

## Sammanfattning

<b>Titel</b>	Prissättning utifrån ett 4PL perspektiv
<b>Författare</b>	Maria Björholt och Louise Kjellberg, <i>master studenter på programmet Industriell ekonomi</i> , Lunds Tekniska Högskola
<b>Handledare</b>	Jenny Sjöholm, <i>Logistikplanerare</i> , Schenker Dedicated Services AB  Dr Andreas Norrman, <i>professor i teknisk logistik</i> , Institutionen för teknisk ekonomi och logistik, Lunds Tekniska Högskola

### Problemformulering och syfte

Intresset för outsourcing av logistiktjänster har ökat kraftigt under de senaste årtionden och därmed förväntas även marknaden för fjärdepartslogistik (4PL) att växa.

Trots en expanderande marknad så står dock leverantörer av 4PL-tjänster inför konkurrens, inte bara från andra tredje- eller fjärdepartslogistikföretag utan även från företag som erbjuder tjänster som kan sägas vara substitut till 4PL-företag, såsom IT-företag, logistikkonsulter samt företag som erbjuder transportupphandling och fakturahantering. För att förbli konkurrenskraftig på marknaden är det därför avgörande för 4PL-företag att veta hur man ska prissätta sina tjänster.

Syftet med denna studie är att skapa kunskap om olika prissättningsmetoder för 4PL-industrin samt att diskutera möjliga prissättningsmetoder för Schenker Dedicated Services AB (SDS), som är uppdragsgivare för denna uppsats.

### Metod

Studien inleddes med en litteraturstudie. Därefter genomfördes sex fallstudier med syfte att finna överensstämmande mönster beträffande prissättning inom olika branscher. Alla de företag som ingår i fallstudien utgör substitut till SDS's tjänster. Slutligen har resultatet applicerats på SDS kontext för att se om det finns någon indikation på att SDS borde använda andra prismetoder än de som används i dagsläget.

### Teoretisk referensram

Referensramen introducerar tre huvudområden. Det första området tar upp de vanligaste prissättningsmetoder som används antingen av logistikföretag eller av företag som erbjuder tjänster som är substitut till SDS tjänster. Det andra området är en kort beskrivning av hur tjänster kan klassificeras och här introduceras ett antal tjänstekarakteristik som kommer att användas i den övergripande analysen. Det sista huvudområdet behandlar marknaden för tredje- och fjärdepartslogistik. Skärningspunkterna mellan de olika huvudområdena diskuteras i de delkapitel som rör prissättning av service samt prissättning av logistiktjänster.

### Slutsats

Nedan presenteras hur olika substitut till SDS prissätter sina tjänster. I allmänhet så gäller att kunden bär risken när kostnadsbaserade kontrakt används, medan risken överläts till leverantören vid resultatbaserade avtal eller fast pris. I resultatbaserade kontrakt finns det incitament som gör att leverantören motiveras att prestera. Sådana incitament skapas dock inte för ett fast pris eller så kallade cost-plus kontrakt.

### ***Logistikkonsulter***

Kostnadsbaserad eller värdebaserad prissättning verkar vara vanligt inom branschen. Trots att cost-plus kontrakt är branschstandard så anser man att värdebaserad prissättning skulle vara det optimala. Båda företagen som var inkluderade i studien debiterar sina tjänster antingen med ett fast pris eller med ett löpande pris per timme.

### ***Information & Teknologi***

Det ena företaget som ingick i studien använder sig av värdebaserad prissättning, medan det andra företaget sätter sitt pris utefter vad marknaden är beredd att betala. Skillnaden i val av prissättningsmetod kan förklaras av den övergripande analys som vi har gjort. Analysen visar att tjänster som är mer komplexa och skräddarsydda kan prissättas baserat på det genererade värdet, medan tjänster som är enkla och standardiserade tenderar att prissättas utefter marknaden. Vilken prissättningsmetod som är branschstandard verkar variera beroende på hur komplex och kundanpassad tjänsten är. Båda företagen föredrar dock att använda sig av en transaktionsbaserad betalningsprincip. Detta eftersom man har insett att den är mer lönsam än ett årligt fast pris.

### ***Fakturahantering***

Det företag som deltog i studien använder sig av cost-plus för att prissätta sina tjänster. För kunder med små volymer eller för standardiserade tjänster, bestäms dock delvis prisnivån utefter vad marknaden är beredd att betala. Kunderna debiteras baserat på antalet transaktioner som de utför per månad. Hur tjänsterna prissätts varierar inom branschen.

### ***Frakturupphandling***

Frakturupphandling är en enkel och standardiserad tjänst, vilket gör att resultatet dvs. besparingarna går att mäta. Därför är resultatbaserat arvode en lämplig prissättningsmetod för denna typ av tjänst. Resultatbaserat arvode, eller vinstdelning, anses också vara branschstandard.

### ***Generella mönster mellan olika branscher***

Den övergripande analysen visar att företag som erbjuder tjänster som är komplexa och skräddarsydda antingen använder sig av en värdebaserad prissättningsmetod, vill i större uträkning göra så eller tycker att en värdebaserad prissättningsmetod skulle vara optimalt för deras tjänster.

### ***Indikationer för SDS***

Baserat på den övergripande analys vi har gjort och det faktum att SDS erbjuder tjänster som är komplexa och skräddarsydda, föreslår vi att SDS bör undersöka om värdebaserad prissättning kan användas för deras tjänster, dvs. en prissättningsmetod som bestämmer pris med utgångspunkt i vad kunden upplever skapar värde.

Vi föreslår också att SDS måste bli bättre på att kommunicera det värde som de skapar som 4PL-leverantör. Ett sätt att göra detta är via den prismetod man använder sig och vi tror att en prissättning som är grundad på kundens upplevda värde skulle uppfylla detta syfte. Dessvärre är det upplevda värdet ofta svårt att mäta och kvantifiera och därför föreslår vi att SDS även bör uppmärksamma andra värdebaserade prissättningsmetoder som är mer etablerade inom branschen, såsom resultatbaserat arvode eller prissättning baserat på prestation. Vi anser att användandet av sådana prissättningsmetoder skulle göra det möjligt för SDS att bättre förmedla det värde som skapas och därmed vad som skiljer SDS från 3PL-leverantörerna på marknaden.

## Table of Contents

<b>1. INTRODUCTION</b> .....	<b>1</b>
1.1 BACKGROUND .....	1
1.2 PROBLEM DISCUSSION .....	2
1.3. PURPOSE AND ISSUES .....	2
1.4 FOCUS AND DELIMITATIONS .....	3
1.5 TARGET GROUP .....	3
1.6 OUTLINE OF THE THESIS.....	4
<b>2. SCHENKER DEDICATED SERVICES AB</b> .....	<b>5</b>
<b>3. METHODOLOGY</b> .....	<b>7</b>
3.1 SCIENTIFIC APPROACH .....	7
3.1.1 <i>The analytical approach</i> .....	7
3.1.2 <i>The systems approach</i> .....	7
3.1.3 <i>The actors approach</i> .....	8
3.1.4 <i>The scientific approach of this thesis</i> .....	8
3.2 RESEARCH METHODS .....	9
3.2.1 <i>Inductive, deductive and abductive research methods</i> .....	10
3.2.2 <i>Qualitative and quantitative methods</i> .....	11
3.2.3 <i>The research approach of this thesis</i> .....	11
3.3 CASE STUDY APPROACH .....	12
3.4 CASE SELECTION .....	15
3.5 DATA COLLECTION .....	18
3.5.1 <i>Primary and secondary information</i> .....	18
3.5.2 <i>Interviews</i> .....	18
3.5.3 <i>Data collection in this thesis</i> .....	19
3.6 CASE STUDY AND THESIS EXECUTION.....	21
3.7 ANALYSIS.....	22
3.8 CREDIBILITY .....	22
3.8.1 <i>Construct validity</i> .....	22
3.8.2 <i>Internal validity</i> .....	23
3.8.3 <i>External validity</i> .....	23
3.8.4 <i>Reliability</i> .....	23
<b>4. FRAME OF REFERENCE</b> .....	<b>25</b>
4.1 STRUCTURE.....	25
4.2 PRICING METHODS.....	25
4.2.1 <i>Cost-based pricing methods</i> .....	26
4.2.2 <i>Market-based pricing</i> .....	27
4.2.3 <i>Value-based pricing</i> .....	27
4.2.4 <i>Payment principles</i> .....	32
4.3 SERVICE CLASSIFICATION .....	36
4.4 PRICING OF SERVICES.....	38
4.4.1 <i>Service characteristics linked to pricing in the literature</i> .....	38
4.4.2 <i>How different service industries price their offerings</i> .....	39
4.5 THIRD-PARTY LOGISTICS VERSUS FOURTH-PARTY LOGISTICS.....	40
4.6 PRICING OF LOGISTICS SERVICES.....	42
4.6.1 <i>Contracts and relational governance</i> .....	42

4.6.2 Pricing methods used for logistics services.....	43
4.6.3 Factors influencing the choice of pricing method and contract design .....	43
4.6.4 Pricing methods suitable for the 4PL industry.....	44
<b>5. THE STUDIED SYSTEM AT SDS.....</b>	<b>47</b>
5.1 PRICING METHOD.....	47
5.2. SERVICE CHARACTERISTICS .....	48
<b>6. CASE STUDY FINDINGS.....</b>	<b>51</b>
6.1 CASE STUDY FINDINGS - IT-1 .....	53
6.1.1 Pricing method.....	53
6.1.2 Service characteristics .....	56
6.1.3 Summary of IT-1 .....	56
6.2 CASE STUDY FINDINGS - IT-2 .....	58
6.2.1 Pricing method.....	58
6.2.2 Service characteristics.....	60
6.2.3 Summary of IT-2.....	60
6.3 CASE STUDY FINDINGS - ECONOMY SUPPLIER.....	62
6.3.1 Pricing method.....	62
6.3.2 Service characteristics.....	64
6.3.2.1 Ease of specifying service .....	64
6.3.3 Summary of Economy Supplier.....	65
6.4 CASE STUDY FINDINGS - TRANSPORT PROCUREMENT.....	65
6.4.1 Pricing method.....	66
6.4.2 Service characteristics.....	67
6.4.3 Summary of Transport Procurement.....	68
6.5 CASE STUDY FINDINGS - SCM CONSULTING .....	69
6.5.1 Pricing method.....	69
6.5.2 Service characteristics.....	71
6.5.3 Summary of SCM Consulting .....	71
6.6 CASE STUDY FINDINGS – FREIGHTMOVEMENT .....	73
6.6.1 Pricing method.....	73
6.6.1.1 Examining the pricing method.....	73
6.6.2 Service characteristics.....	75
6.6.3 Summary of FreightMovement.....	75
<b>7. ANALYSIS OF PRICING METHODS.....</b>	<b>77</b>
7.1 EXTENSION OF THE THEORY CHAPTER .....	77
7.2 RISK ALLOCATION AND INCENTIVES FOR DIFFERENT PRICING METHODS.....	82
<b>8. CROSS-CASE ANALYSIS .....</b>	<b>85</b>
<b>9. REFLECTIONS ON POSSIBLE PRICING METHODS FOR SDS.....</b>	<b>95</b>
THIS CHAPTER WILL ADDRESS PROBLEM STATEMENT D:.....	95
9.1 PRICING METHODS USED BY FUNCTIONAL SUBSTITUTES .....	95
9.1.1 Supply Chain Management Consulting.....	96
9.1.2 Information & Technology.....	96
9.1.3 Freight-Bill Auditing.....	97
9.1.4 Tendering and Freight Procurement.....	97
9.2 DISCUSSION OF THE FINDINGS WITH RESPECT TO SDS.....	97
<b>10. CONCLUSION .....</b>	<b>105</b>
10.1 THE MOST COMMON PRICING METHODS COVERING THE THIRD- AND FOURTH PARTY LOGISTICS IN RESEARCH.....	105
10.2 PRICING METHODS AT SDS .....	105
10.3 PRICING METHODS THAT FUNCTIONAL SUBSTITUTES USE.....	106

10.4 REFLECTIONS ON SUITABLE PRICING METHODS AND SUGGESTIONS FOR FURTHER RESEARCH AT SDS .....	108
10.6 SUGGESTIONS FOR FURTHER ACADEMIC RESEARCH .....	109
<b>REFERENCES .....</b>	<b>ERROR! BOOKMARK NOT DEFINED.</b>
<b>APPENDIX 1 – OPERATIONAL, TACTICAL AND STRATEGIC ACTIVITIES AT SDS...</b>	<b>117</b>
<b>APPENDIX 2 - CASE STUDY PROTOCOL .....</b>	<b>118</b>
<b>APPENDIX 3 - LIST OF INTERVIEWEES THAT PARTICIPATED IN THE CASE STUDIES .....</b>	<b>121</b>

## Figures

Figure 1.1. Three factors that influence the pricing method decision .....	3
Figure 2.1 Illustration of SDS’s organizational structure .....	6
Figure 3.1. The analytical approach.....	7
Figure 3.2. The systems approach .....	8
Figure 3.3. The actors approach.....	8
Figure 3.4. The system that the research in this study is based upon.....	9
Figure 3.5. Close-up on the system this study is based upon.....	9
Figure 3.6. The inductive research approach .....	10
Figure 3.7. The deductive research approach .....	10
Figure 3.8. The abductive research approach .....	11
Figure 3.9. Basic types of designs for case studies .....	13
Figure 3.10. Case Study Method.....	14
Figure 3.11. Close-up on the system applied to each specific case .....	15
Figure 3.12. Functional substitutes to SDS .....	16
Figure 3.13. Case study and thesis execution.....	21
Figure 4.1. Illustration of the frame of reference.....	25
Figure 4.2. The three parameters create a viable gap where profitable pricing is possible.....	26
Figure 4.3. The variable fee can be either static or dynamic.....	33
Figure 6.1. The disposition of the data collected from the case studies.....	51
Figure 6.2 How a set of questions corresponds to a certain part of the system.....	52
Figure 6.3. The licence method.....	53
Figure 6.4. The transaction method.....	54
Figure 7.1. Risk allocation when using different pricing methods.....	83
Figure 7.2. Pricing methods influencing the provider’s incentive to perform.....	83
Figure 7.3. Pricing methods influencing customer’s assurance that goals are achieved.....	84
Figure 8.1 The companies that use more than one pricing method either have different pricing methods depending on the type of customer, the type of service or both.....	92
Figure 9.1. IT, Freight-bill auditing, Freight-Procurement, and Consulting are all functional substitutes to the 4PL industry.....	95
Figure 9.2. Shows the provider’s incentive to perform for a number of pricing methods.....	101
Figure 9.2. Customer and Offer segmentation matrix developed by FreightMovement.....	101

## Tables

Table 1.1 The outline of this thesis .....	4
Table 3.1. Parameters that may influence the choice of pricing method .....	17
Table 3.2. Service characteristics used for case selection.....	17
Table 3.3. Categorization of the size of the company.....	17
Table 3.4. Case objects and anticipated service characteristics (high versus low).....	18
Table 3.4. The main sources of information used in the thesis.....	20
Table 3.5. An overview of how credibility is established in this thesis.....	24
Table 4.1. Advantages and disadvantages with cost-plus percentage.....	27
Table 4.2. Advantages and disadvantages with competitor-based pricing.....	27
Table 4.3. Advantages and disadvantages with value-based pricing.....	29
Table 4.4. Advantages and disadvantages with gain-sharing.....	30

Table 4.5. Advantages and disadvantages with a performance-based pricing method.....	31
Table 4.6. Advantages and disadvantages with a fixed price.....	32
Table 4.7. Advantages and disadvantages with a transaction-based contract.....	33
Table 4.7. Advantages and disadvantages with cost-plus management fee.....	35
Table 4.8. Advantages and disadvantages with cost-plus incentive fee.....	36
Table 5.1. Findings service characteristics for SDS.....	49
Table 6.1. Findings service characteristics for IT-1.....	56
Table 6.2. Summary of IT-1's transaction method.....	57
Table 6.3. Summary of IT-1's license method.....	57
Table 6.4. Findings External factors for IT-1.....	58
Table 6.5. Findings service characteristics for IT-2.....	60
Table 6.6. Summary of IT-2's transaction method.....	61
Table 6.7. Summary of IT-2's license method.....	61
Table 6.8. Findings external factors for IT-2.....	62
Table 6.9. Findings service characteristics for Economy Supplier.....	64
Table 6.10. Summary of Economy Supplier's pricing method.....	65
Table 6.11. Findings external factors that Economy Supplier takes into consideration.....	65
Table 6.12. Findings service characteristics for Transport Procurement.....	67
Table 6.13. Summary of Transport Procurement's pricing method.....	68
Table 6.14. Findings external factors that Economy Supplier takes into consideration.....	69
Table 6.15. Findings service characteristics for SCM Consulting.....	71
Table 6.16. Summary of SCM Consulting's pricing method.....	72
Table 6.17. Findings external factors that SCM Consulting takes into consideration.....	73
Table 6.18. Customer and Offer segmentation matrix. Developed by FreightMovement.....	74
Table 6.19. Findings service characteristics for FreightMovement.....	75
Table 6.20. Summary of FreightMovement's value-based pricing method.....	76
Table 6.21. Summary of FreightMovement's cost-plus pricing method.....	76
Table 6.22. Findings external factors that FreightMovement take into consideration.....	76
Table 7.1. Advantages and disadvantages with value-based pricing (theory + empirics).....	77
Table 7.2. Advantages and disadvantages with gain-sharing (theory + empirics).....	78
Table 7.3. Advantages and disadvantages with a performance-based pricing method (theory + empirics).....	79
Table 7.4. Advantages and disadvantages with fixed price (theory + empirics).....	80
Table 7.5. Advantages and disadvantages with transaction-based pricing (theory + empirics).....	81
Table 7.6. Advantages and disadvantages with running cost per hour (empirics).....	81
Table 7.7. Advantages and disadvantages with all unit discount (empirics).....	82
Table 7.8. Advantages and disadvantages with marginal quantity discount (empirics).....	82
Table 8.1 The pricing methods that are used by each case study object.....	85
Table 8.2. Findings degree of complexity.....	86
Table 8.3. Findings degree of customization.....	87
Table 8.4 Findings ease of specifying the service.....	88
Table 8.5 Findings the nature of the relationship with customers.....	90
Table 8.6 Findings the scope of the relationship with customers.....	90
Table 8.7 Shows the distribution of cost-, market-, and value based pricing methods in combination with a fixed, variable or mixed payment principle for all case study objects.....	91
Table 9.1. Findings service characteristics for SDS.....	97

## Definitions and abbreviations

<b>SDS</b>	Schenker Dedicated Services AB
<b>3PL</b>	Third-party logistics
<b>4PL</b>	Fourth-party logistics
<b>Functional substitutes</b>	Companies that offer one or several of SDS's services, will be referred to as functional substitutes.
<b>LSP</b>	Logistics service provider

# 1. Introduction

---

*The aim of this chapter is to introduce the reader to the purpose of the thesis. Initially, a general background on the topic will be given. Then a brief discussion of the problem will follow together with the purpose and the target group. Finally, delimitations will be made and an overview of the disposition of the thesis will be presented.*

---

## 1.1 Background

The competition is fierce on many markets these days and companies are thus often forced to solely dedicate themselves to their core business. As a result, the demand for outsourcing has increased and therefore, the fourth party logistics services industry (4PL) is expected to grow significantly in the years to come.<sup>1,2</sup>

However, although business is flourishing, the 4PL industry is very competitive. Not only does a 4PL provider face competition from other third- and fourth party logistics providers, but also indirect from companies that provide parts of the services that a 4PL provider offers, e.g. a consulting firm that is specialized in supply chain management or an IT-company that offers supply chain IT-solutions. The margins in the industry are thus low and many companies compete on cost<sup>3</sup>. Moreover, the customers expect price stability from the 4PL, while the actual cost of producing those services often are difficult to predict. Thus, the task of pricing 4PL services for a sustainable level of income and growth pose unique challenges. The question is whether there are pricing methods that are more suitable for this fluctuating and competitive context? Or if there are pricing methods that better communicate the additional value that a 4PL provider creates?

In the academic literature pricing has received relatively little attention, especially if compared to the research conducted within the fields of the rest of the 4Ps in the market mix, i.e. product, promotion and place (distribution). As Hinterhuber (2004) suggests:

*“Not only managers, but also academics, have shown little interest in the subject of pricing. Publications on this subject are not anywhere as numerous as publications on other classical marketing instruments such as product, promotion and distribution.”*

This might seem surprising keeping in mind what Potter (2000) point out, namely, that price is in fact the only lever out of the four that generates revenues. Besides, it is an element that it is relatively flexible and can easily be adjusted according to changing environments.<sup>4</sup> Nevertheless, the field of pricing of services has recently gained an increased interest. For instance, a study focusing on the third-party logistics industry conducted by Halldorsson and Skjoett-Larsen (2006), suggests that a well-fitted price model can enhance further cooperation between the logistics provider and the customer, while a less appropriate model most probably will impede the relation<sup>5</sup>. It can be assumed that the same is true for a fourth-party logistics relation. Furthermore, empirical observations reveal that users and providers of logistics services often lack

---

<sup>1</sup> Ambruster (2002)

<sup>2</sup> Hilletoft & Hilmola (2010)

<sup>3</sup> Interview with personnel at SDS 2010-02-16

<sup>4</sup> Avlonitis & Indounas (2005 B)

<sup>5</sup> Halldorsson & Skjoett-Larsen (2006)

the knowledge of how to use appropriate pricing methods.<sup>6</sup> Therefore, a deeper understanding of how well certain pricing methods fit logistics services would be highly relevant. Besides, it would be equally beneficial for both users and providers<sup>7</sup>.

## 1.2 Problem discussion

Schenker Dedicated Services AB (SDS) is a provider of fourth-party logistics services. Their definition of third-party logistics (3PL) and fourth-party logistics (4PL) are given below. These definitions will be used throughout the thesis.

3PL = An operator holding his own assets, like trucks, terminals, warehouses and who may have a terminal of his own.

4PL = An operator who does not have his own fixed assets but provides services by purchasing and combining services from several 3PLs into one single solution for the customer.

The 4PL market is expanding rapidly and the increased demand for 4PL services has made SDS review their pricing strategy. More specifically, SDS has expressed a desire to know if there are other pricing methods than the ones currently used that could be relevant for their services.

There is only limited knowledge within SDS of what pricing methods that substitutes use. Nor does much knowledge exist of how these companies arrive at that pricing method, i.e. the reasoning behind the choice of pricing method. Substitutes in this sense are companies that offer one or various services of that of SDS. This category will hereafter be referred to as “functional substitutes”. These companies could be a potential threat if they grow strong enough to serve as a reason for customers not to outsource the entire management of transports. As a general manager at SDS expresses it: “*The customer is the major competitor*”. Potentially, customers might opt for an IT-system that fulfils their needs, outsource the freight bill auditing and keep the rest of the activities in-house. Nevertheless, one could argue that companies such as 4PLs offer something more than just mere transport and that the bundle of services they offer as such employs a value. If the customer were to tailor-make the solution by cherry picking in the market, it would hence not add up to the same value. However, that is only true if SDS manages to price their services so that the additional value that they are creating is communicated to the customers. Bearing in mind that one of the major threats of loosing business is posed by the customers themselves, it would therefore be interesting to investigate how functional substitutes price their services.

## 1.3. Purpose and issues

The purpose of this thesis is to create knowledge about different pricing methods used in 4PL, and to discuss potential pricing methods for SDS.

To address this purpose, we will study the following issues:

- A. What are the most common pricing methods that are discussed in research covering the third- and fourth-party logistics industry?
- B. What pricing methods are currently used at SDS?
  - a. What are the disadvantages and advantages with the different pricing methods?
  - b. What effects do the pricing methods create in terms of:

---

<sup>6</sup> Lukassen & Wallenburg (2010)

<sup>7</sup> Ibid.

- i. Who bears the risk?
    - ii. What incentives are created from using these pricing methods?
- C. What pricing methods do functional substitutes use?
  - a. What are the disadvantages and advantages with their different pricing methods?
  - b. What effects do the pricing methods create in terms of:
    - i. Who bears the risk?
    - ii. What incentives are created from using these pricing methods?
  - c. What are the most salient convergent patterns between the industries?
    - i. How do certain service characteristics interplay with the choice of pricing method?
- D. Based on the findings from the statements above, is there any indication that SDS should use other pricing methods?

#### 1.4 Focus and delimitations

Essentially, there are three factors that influence what price level that can be set (figure 1.1). These are: the costs derived from producing the service, the value created for the individual customer and the customer's alternative on the market<sup>8</sup>. SDS internal costs will not be discussed in this thesis. Nor will we investigate the customer's perspective and what value they think that SDS creates for them. This thesis will be delimited to solely focus on the pricing methods used by the competition, where the primary focus will be on the pricing methods that are used by functional substitutes.

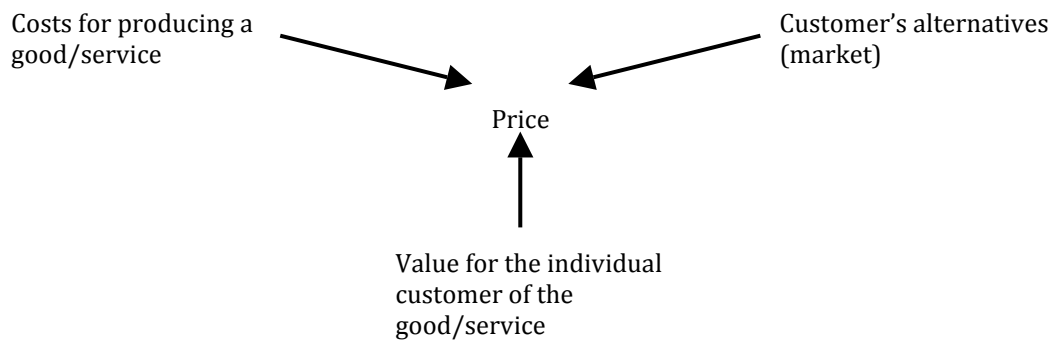


Figure 1.1. Three factors that influence the pricing method decision<sup>9</sup>.

#### 1.5 Target group

The target group of this report is primarily the executive board and employees at SDS that are involved in the pricing decision-making. Researchers and students that are interested in the logistics services industry, and pricing of such services, are also part of the target group.

---

<sup>8</sup> Axelsson & Wynstra (2002)

<sup>9</sup> Axelsson & Wynstra (2002)

## 1.6 Outline of the thesis

Table 1.1 below gives an overview of the outline of the thesis.

	Chapter	Title	Objectives
<b>Introduction</b>	1	Introduction	<i>To give a brief background to the problem including e.g. problem discussion, purpose and delimitations.</i>
	2	Information about SDS	<i>To introduce SDS.</i>
<b>Methodology</b>	3	Methodology	<i>To justify the chosen methodology.</i>
<b>Theoretical framework</b>	4	Pricing methods	<i>To present the theories that exist within the field.</i>
		Service classification	
		Pricing of services	
		3PL versus 4PL	
		Pricing of services within the logistics services industry	
<b>Empirics</b>	5	Current situation at SDS	<i>To explain the pricing methods that are currently used at SDS.</i>
	6	Case study findings	<i>To examine how functional substitutes price their services.</i>
<b>Analysis</b>	7	Analysis of pricing methods	<i>To extend the theory chapter, carry out analysis of advantages and disadvantages.</i>
	8	Cross-case analysis	<i>To try to find convergent patterns between the case study objects.</i>
	9	Reflection on possible pricing methods for SDS	<i>To apply the findings on SDS's situation.</i>
<b>Conclusion</b>	10	Conclusion	<i>To present a summary of the findings.</i>

*Table 1.1 The outline of this thesis*

## 2. Schenker Dedicated Services AB

---

*In this chapter the client of this thesis, Schenker Dedicated Services AB, will be introduced and its main business objectives, and how these are carried out, will be explained.*

---

### 2.1 General company information

Schenker Dedicated Services AB is an independently operating unit, within the DB Schenker organization, that provides fourth party logistics services. SDS caters for a group of customers from different industry sectors, all of which are geographically dispersed and have high specific demands on their traffic network. Among SDS's customers ESAB, Tetra Laval, Tidningsreturer AB, Region Skåne, Duni, Billerud and Stanley Black & Decker are found.

SDS was founded in 1996 by the present managing director Magnus Strand and has since its early days grown significantly. The company now accounts for about 80 employees and the aim is to expand further within the near future. Currently, the company operates at two different locations, Gothenburg and Malmö, in Sweden. Annual turnover was in 2010 1.15 billion SEK.<sup>10</sup>

### 2.2 Business concept

The main objective of SDS is to tailor and manage the best possible traffic network solutions for their customers<sup>11</sup>. In order to do so, SDS explores its extensive network of logistic partners. Currently, this network consists of about 100 partners, ranging from providers offering services such as, full and part load-, intermodal-, sea and rail transport, terminal handling, distribution set-ups and warehousing<sup>12</sup>.

### 2.3 Organization

In order to manage the high degree of customization, SDS sets up a specific department for every customer. This department is also assigned a group of personnel that forms a control tower. The control tower is in charge of operative activities, such as the daily procurement and management of transports. It also coordinates and exchanges information between all the parties that are involved. Each department also has a logistics developer and an IT-developer, who together with the general manager of the specific customer department will take care of issues of more tactical or strategic concern. That could be making sure that the most suitable supplier is selected, or taking a more active role in the long-term development of the customer's supply chain solution.<sup>13</sup>

In figure 2.1 the Control Tower and the rest of SDS's organization is illustrated. The control tower includes all positions marked in dark grey, i.e. one traffic manager and a number of traffic coordinators. The rest of the positions are supportive functions, such as IT or economy<sup>14</sup>.

---

<sup>10</sup> *About SDS*. Retrieved 1 25, 2011, from [www.schenkerds.se](http://www.schenkerds.se)

<sup>11</sup> *Ibid.*

<sup>12</sup> *SDS meets the customers' demands*. Retrieved 1 25, 2011, from [www.schenkerds.se](http://www.schenkerds.se)

<sup>13</sup> *About SDS*. Retrieved 1 25, 2011, from [www.schenkerds.se](http://www.schenkerds.se)

<sup>14</sup> SDS PowerPoint presentation

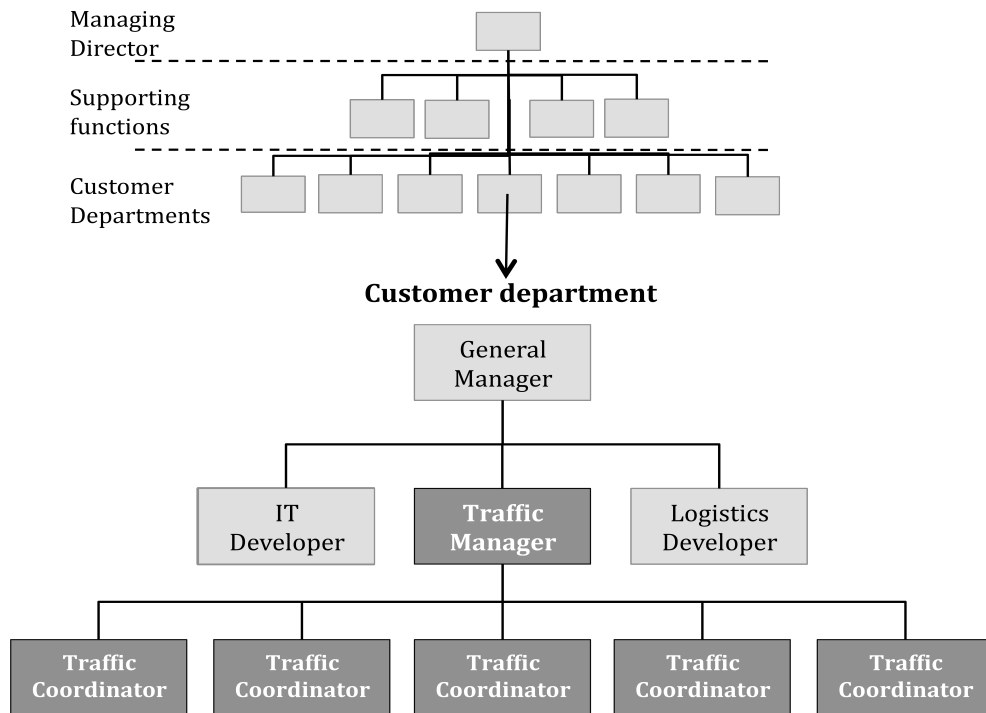


Figure 2.1 Illustration of SDS's organizational structure.<sup>15</sup>

## 2.4 SDS's strengths

According to SDS, their strengths as a 4PL provider are<sup>16</sup>:

- **Transport economy.** A unique logistics solution is developed for each customer by employing SDS's extensive network of carriers. The objective is to stay proactive, and on a continuous basis enhance the existing logistics solutions.
- **One single point of contact.** Irrespective of geographical coverage, SDS will coordinate all the information and the activities that are part of the supply chain, and present one-single point of contact to the customer.
- **Non asset-based.** SDS is operating as an independent unit to DB Schenker, i.e. SDS is not restricted to purchase transports from DB Schenker's global network and will only do so if that is the optimal solution for the customer. Being non asset-based gives SDS full flexibility to choose the most optimal solution on the market at any given time.
- **IT-solutions.** SDS has developed the Transport Management System STAR. The system integrates all the activities in the supply chain, whereby the time and cost for administration is minimized for the customer. STAR is, however, not the only IT-solution that is used, but also iPAL, TUF and Navision, are used when needed.
- **Specialists.** SDS only owns intellectual capital and IT-solutions. SDS is thus a knowledge-based company rather than a traditional logistics service provider. The two areas where SDS is particularly competitive are IT and supply chain development.

<sup>15</sup> About SDS. Retrieved 1 25, 2011, from [www.schenkerds.se](http://www.schenkerds.se)

<sup>16</sup> Ibid.

## 3. Methodology

---

*This chapter aims to explain the research methodology that has been applied to this thesis. More specifically, this includes justifying the choice of scientific approach, research method and the type of data collected. Issues concerning credibility will also be discussed.*

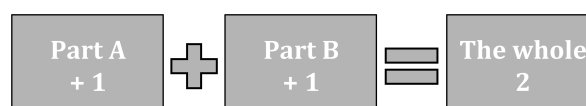
---

### 3.1 Scientific approach

When conducting research it is paramount to clarify what scientific approach that the research aims to pursue. Three main approaches that have been generally accepted are the analytical approach, the systems approach and the actors approach<sup>17</sup>. All of these differ widely in how they perceive reality, and the results will consequently vary depending on the approach that is chosen<sup>18</sup>. The following paragraphs will introduce each approach briefly, and then conclude with justifications for the approach that has been chosen for this thesis.

#### 3.1.1 The analytical approach

According to the analytical approach, the world is an objective reality where patterns and cause-effect relations can be identified. Effectively, this means that the world can be decomposed into different element, where all components sum up to a total that is equal to the sum of the parts. Thus, by studying the different parts involved, one can draw conclusions from the total picture<sup>19</sup> (figure 3.1). The analytical approach hence tries to determine the “real truth” as the components are not believed to affect one another<sup>20</sup>. It is important that the researcher does not interact, in order not to distort the situation with his or her subjective experience. The presumption of the researchers objectivity enables previous research with an analytical approach to serve as a starting point for further research within the same field. Commonly, knowledge is obtained by hypothesis testing<sup>21</sup>.



*Figure 3.1. The analytical approach.*

#### 3.1.2 The systems approach

Unlike the analytical approach, the systems approach argues that it is pointless to try to describe the world as the sum of the parts. Instead, reality is perceived through a more holistic perspective and the world is explained through a system. This system consists of a set of components that all influence one another through links, goals or feedback mechanisms. Potential interaction between those might result in a plus or minus effect, which consequently must be taken into consideration when drawing conclusions (figure 3.2). Moreover, the systems approach attempts to find solutions to problems that can work in practice, rather than finding the “real truth” as in the analytical approach. The more pragmatic nature of this approach makes case studies suitable, as these enable the

---

<sup>17</sup> Arbnor & Bjerke (1997)

<sup>18</sup> Persson (1982)

<sup>19</sup> Gammelgaard (2004)

<sup>20</sup> Persson (1982)

<sup>21</sup> *ibid*

researcher to thoroughly analyze and compare different situations. Nevertheless, both qualitative and quantitative methods can be used<sup>22</sup>.



Figure 3.2. The systems approach.

### 3.1.3 The actors approach

The actors approach has a completely different perception of reality as it argues that the world is not objective. The world is rather the result of various social interactions that are interpreted differently depending on the observer. This means that reality changes over time depending on the actors and may also be perceived differently (figure 3.3). The actors approach questions the attempts to try to find cause-effect relationships and argues that the world must be investigated through the lens of the human being and, more specifically, analysed based upon this person's intentions. In theory, the research should be made from within, in order to let the researcher be a part of reality. Suitable methods for this approach are therefore primarily qualitative ones<sup>23</sup>.

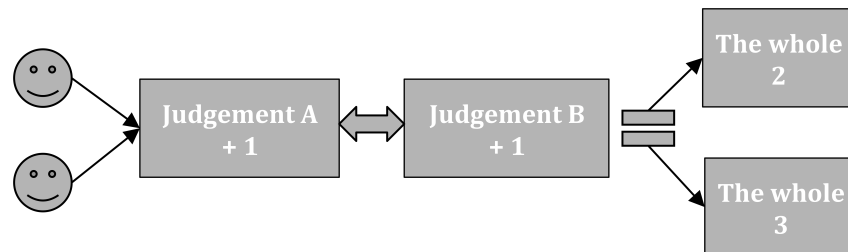


Figure 3.3. The actors approach.

### 3.1.4 The scientific approach of this thesis

If this thesis were to take an analytical approach this would imply that each pricing method used within a certain category of functional substitutes could simply be added to one another and, thus, the total would comprise the recommended strategy for SDS. However, it is believed that there are certain factors in the market that influence the selection of pricing method, whereby this approach is not considered to be relevant in this case.

Pursuing an actors approach would imply doing an investigation about pricing methods with the human perspective in focus. This approach could be interesting, taking into consideration the high level of customization that SDS offers. Nevertheless, since the primary focus of this thesis is to create knowledge about pricing methods, the human perspective is outside the scope of this thesis.

Using the systems approach on the other hand, would more accurately depict the investigated situation. This approach is based on the presumption that different components of the system interact and mutually affect one another. This is thought to be the case in pricing method decisions, as there are several factors, internal and external, that will all interplay and influence the final selection. Furthermore, the intention is to find a pricing method that can work in practice, not necessarily to find a true solution to the problem. Therefore, the main approach for this thesis will be the systems approach.

---

<sup>22</sup> Gammelgaard (2004)

<sup>23</sup> Ibid.

Figure 3.4 below shows the system that we have based the research upon. It illustrates the entire system including the supply side. However, since costs are not going to be discussed in this thesis, the supplier perspective, and the potential influence that these logistics sub-service suppliers could have on the pricing method decision, will be excluded. Instead, the subject of observation will be how different situations between the logistics service provider and customer affect the choice of pricing method, i.e. the dashed area in figure 3.4. A close-up of this part of the system is illustrated in figure 3.5.

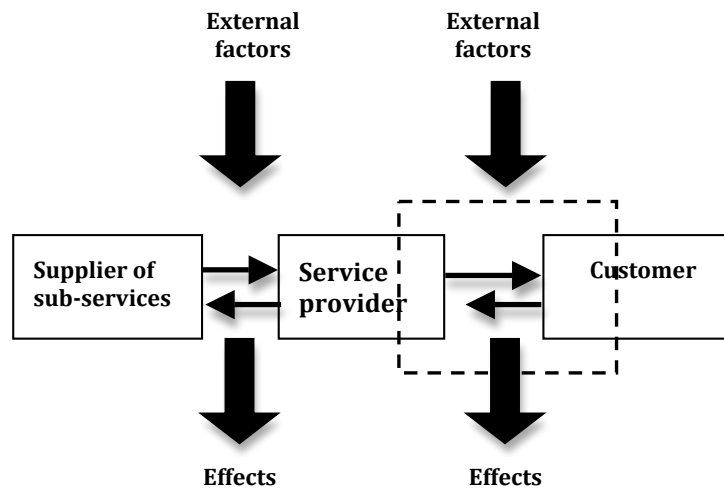


Figure 3.4. The system that the research in this study is based upon.

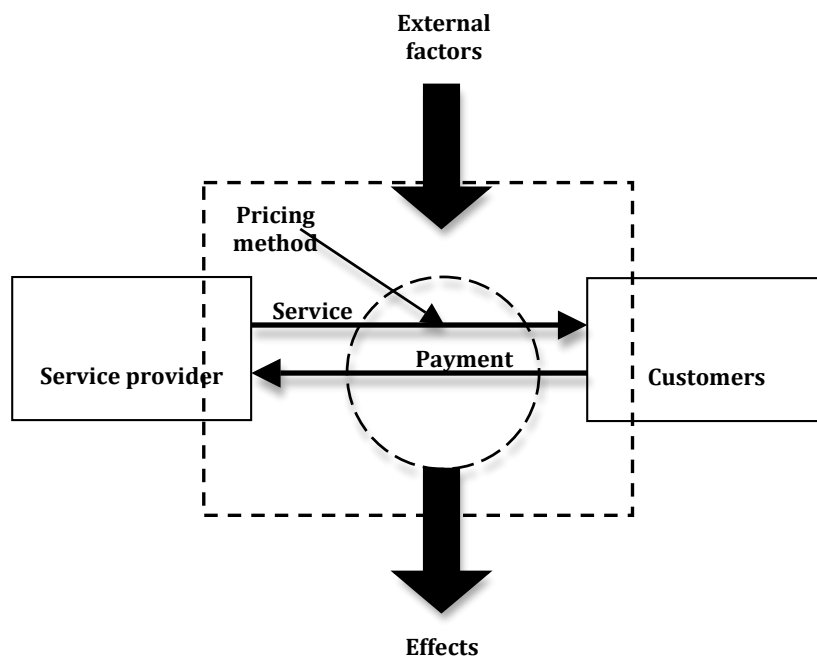


Figure 3.5. Close-up on the system this study is based upon.

### 3.2 Research methods

When conducting a scientific research it is important to decide what research method to use. The research method determines the procedure for collecting, structuring and

analyzing data and will clearly influence the relationship between theory and empirics, and thus the outcome of the research<sup>24,25</sup>.

### 3.2.1 Inductive, deductive and abductive research methods

Literature discussing Western research methodology is generally focused on two main approaches; the inductive research approach and the deductive research approach. When using the inductive approach, the initial step is the collection of empirical data, from which general and theoretical conclusions are to be drawn<sup>26</sup>. The researcher moves from observations to a general rule, i.e. from empirics to theory (figure 3.6)<sup>27</sup>. However, to be able to draw general conclusions it is vital that the researcher is unbiased in the initial data collection phase<sup>28</sup>.

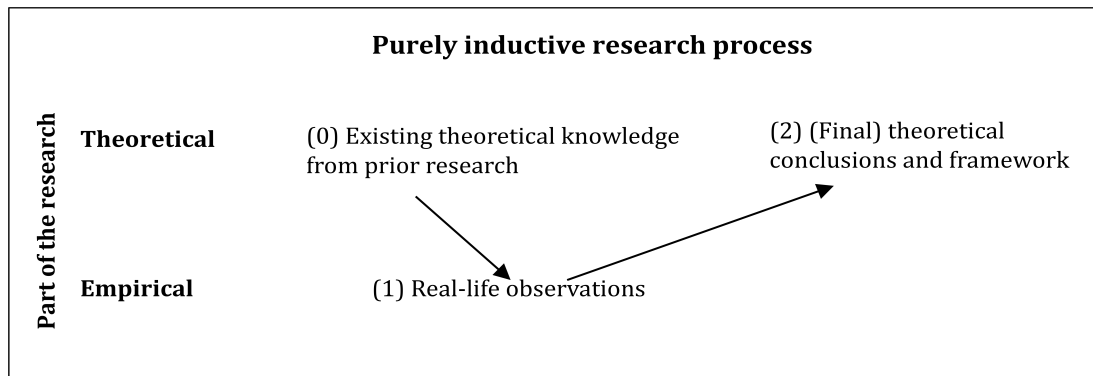


Figure 3.6. The inductive research approach<sup>29</sup>

Whereas the origin of the inductive approach is the collection of empirical data, the deductive approach on the contrary has its focus on theory. The main objective of a researcher using the deductive approach is to, based on theory, develop a hypothesis that will be tested empirically. In other words, the researcher in this case follows a direction from a general rule to a specific case (figure 3.7)<sup>30</sup>. To be able to formulate a hypothesis that will support the objectives of the research, the researcher first needs to create a deeper understanding of the subject in question<sup>31</sup>.

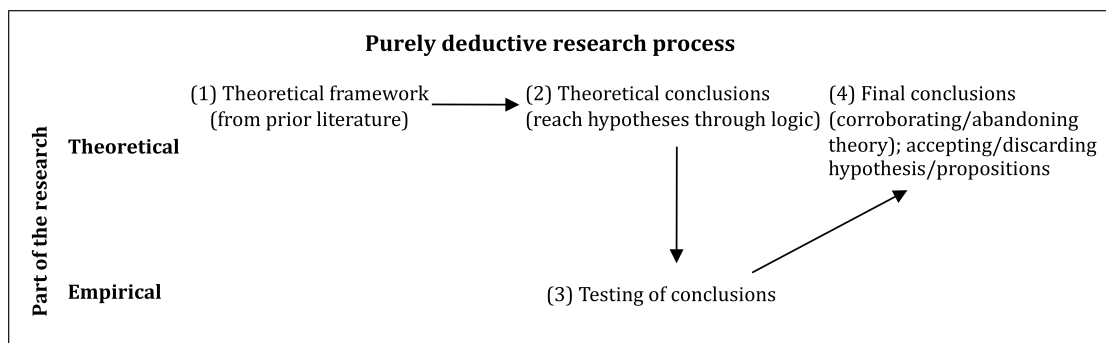


Figure 3.7. The deductive research approach<sup>32</sup>

<sup>24</sup> Arbnor & Bjerke (1997)

<sup>25</sup> Björklund & Paulsson (2009)

<sup>26</sup> Wallén (1996)

<sup>27</sup> Kova'cs & Spens (2005)

<sup>28</sup> Wallén (1996)

<sup>29</sup> Kova'cs & Spens (2005), p.137

<sup>30</sup> Kova'cs & Spens (2005)

<sup>31</sup> Wallén (1996)

<sup>32</sup> Kova'cs & Spens (2005), p. 137

Abduction is fairly similar to the inductive approach in that sense that it originates from real-life observations that are matched with theory. However, instead of a one-direction move from facts to theory (induction) or from theory to empirics (deduction), this approach enables the researcher to continually integrate the derived data by circulating between empirics and theory, as shown in figure 3.8. Abduction could thus be seen as a combination of the two previously discussed approaches<sup>33</sup>. Abductive reasoning is commonly used in case studies, where data collection and theory development is conducted simultaneously<sup>34</sup>.

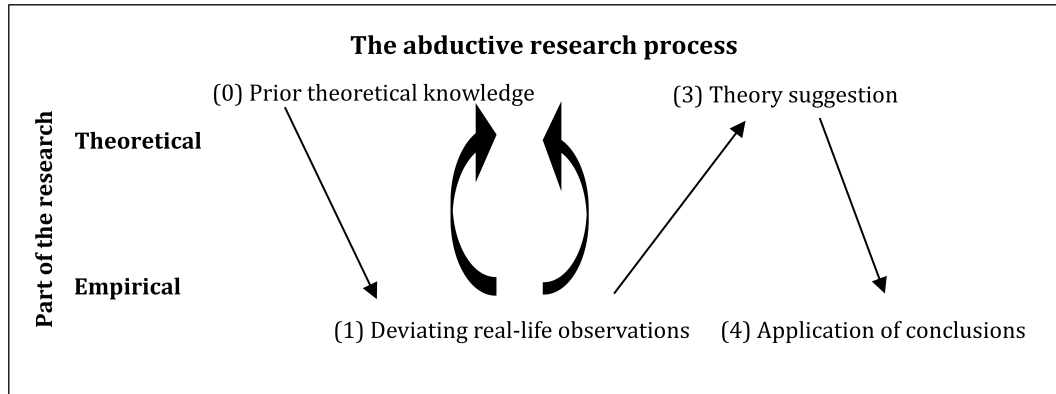


Figure 3.8. The abductive research approach<sup>35</sup>

### 3.2.2 Qualitative and quantitative methods

Quantitative methods aim to gather information that can be measured or quantified. Larger survey investigations or the use of mathematical models to handle statistical data are examples of quantitative methods<sup>36</sup>. If the quantitative research is properly executed, the result can lead to general conclusions about a larger related population<sup>37</sup>.

Qualitative studies, on the other hand, are used when the researcher seeks a deeper understanding of a specific area or situation, where the information thus cannot be quantified. Qualitative studies are less structured than quantitative ones, and usually have an explorative focus. Interviews and observations are often suitable for this kind of research<sup>38</sup>.

### 3.2.3 The research approach of this thesis

The deductive research approach is the predominantly used approach in business logistics research and seems to be selected implicitly if no other research method is discussed<sup>39</sup>. In this case, however, the deductive approach would not be optimal since no hypothesis is going to be tested. Moreover, according to Arlbjørn and Halldósson (2002), the deductive research approach is most suitable for testing existing theories. In a relatively new field such as pricing methods in the logistics services industry, it does not exist a great amount of theory. Hence, one could argue that the deductive approach would not fulfill the purpose of this thesis. Nor would the inductive approach be suitable

<sup>33</sup> Björklund & Paulsson (2009)

<sup>34</sup> Kova'cs & Spens (2005) p. 39

<sup>35</sup> Kova'cs & Spens (2005), p. 139

<sup>36</sup> Ellram (1996)

<sup>37</sup> Davidsson & Patel (1994)

<sup>38</sup> Björklund & Paulsson (2009)

<sup>39</sup> Ibid.

to this thesis, since no hypothesis is to be tested. Instead, the abductive research approach was chosen.

Both interviews and surveys were discussed as possible information gathering methods. Interviews were, however, decided to be the preferable choice since they allow the researcher to create a deeper understanding of the subject that is under investigation. Since this thesis aims to create knowledge about pricing methods, the qualitative method was thus found to be the most suitable approach. Multiple case studies were conducted in order to gain a deeper understanding of how substitutes set their prices.

In order to get a better understanding of different pricing methods and the services offered by SDS, the project was initiated by a literature survey in combination with interviews at SDS. This information was later used when conducting semi-structured interviews (see section 3.5.2) with functional substitutes to SDS. In order to support the empirical observations, the abductive approach has enabled us to continually integrate the empirics with theory.

### **3.3 Case study approach**

Lately, the use of the case study methodology in business research has grown<sup>40</sup>. Case studies typically combine different data collection methods such as interviews, questionnaires and observations and the methodology is especially recommended for theory building, for providing detailed explanations or when striving for a deeper understanding of the gathered data<sup>41,42</sup>. Hence, the case study methodology is a very useful research method when studying relatively unknown areas, as it provides depth and insights into the studied phenomenon.<sup>43</sup>

The purpose of the case study determines whether to use an exploratory, an explanatory or a descriptive approach<sup>44,45</sup>. In exploratory case studies, which often are used to answer how or why something is being done, data collection might start prior to the definition of the specific research question in order for the researcher to get a deeper understanding of the subject. Explanatory case studies, on the other hand, are more suitable for causal studies, which make use of pattern-matching techniques<sup>46</sup>. Finally, descriptive case studies are used when describing a phenomenon or for predicting outcomes based on occurrences in similar cases.<sup>47</sup>

Before conducting the case study analysis, the researcher must first determine whether a single case study or multiple case studies should be used. A single case is often suitable when testing or confirming a well-formulated theory or when the case has a very unique character, the latter making it difficult to find other similar objects to study. When more than one case object is involved in the research, however, the study is a multiple case study. A multiple case study should be used to either predict similar results among replications or to show contrasting results<sup>48</sup>. An advantage of the multiple case study is

---

<sup>40</sup> Ellram (1996)

<sup>41</sup> Ibid.

<sup>42</sup> Eisenhardt (1989)

<sup>43</sup> Ellram (1996)

<sup>44</sup> Ibid.

<sup>45</sup> Tellis (1997)

<sup>46</sup> Ibid.

<sup>47</sup> Ellram (1996)

<sup>48</sup> Ibid.

that results can be strengthened due to replication<sup>49</sup>. Generally, including a number of four to ten case objects is often preferred. When conducting a multiple case study it is also important to select the different cases with care to ensure that they all serve the purpose of the study. More specifically, the case objects should be selected in such a way that they predictably would give comparable results or demonstrate contrasting outcomes (see case selection 3.4).

The single and multiple case-designs can in turn be either holistic or embedded, as shown in figure 3.9. The holistic case design is used when there are no sub-units of interest, whereas the embedded design is used when a specific case involves several units of analysis. The unit of analysis, i.e. what the case is designed to investigate, helps to ensure that the case objects chosen are relevant to the issues of interest. When designing a case study it is hence imperative to have the unit of analysis clearly defined in the early stage of the design process<sup>50</sup>.

	Single-case design	Multiple-case design
Holistic (single unit of analysis)	Type 1	Type 3
Embedded (multiple units of analysis)	Type 2	Type 4

Figure 3.9. Basic types of designs for case studies<sup>51</sup>

The development of a multiple case study starts with the construction of a theoretical framework, selection of suitable cases and deciding on how data should be gathered. The chosen cases are first investigated separately, and the conclusions drawn from each case are summarized in an individual case report. These conclusions are then compared in order to generate cross-case conclusions. The final report hence includes both an analysis of each specific case and a cross-case analysis. For each individual case, the report should point out the reasons to how and why different proposition were or were not demonstrated. Across the cases, the report should explain why certain cases were predicted to have certain results, while others were predicted to have contrasting results<sup>52</sup>. The case study method developed by Yin (1994) is illustrated in figure 3.10.

---

<sup>49</sup> Eisenhardt (1989)

<sup>50</sup> Yin (1994)

<sup>51</sup> Ibid. p. 39

<sup>52</sup> Yin (1994)

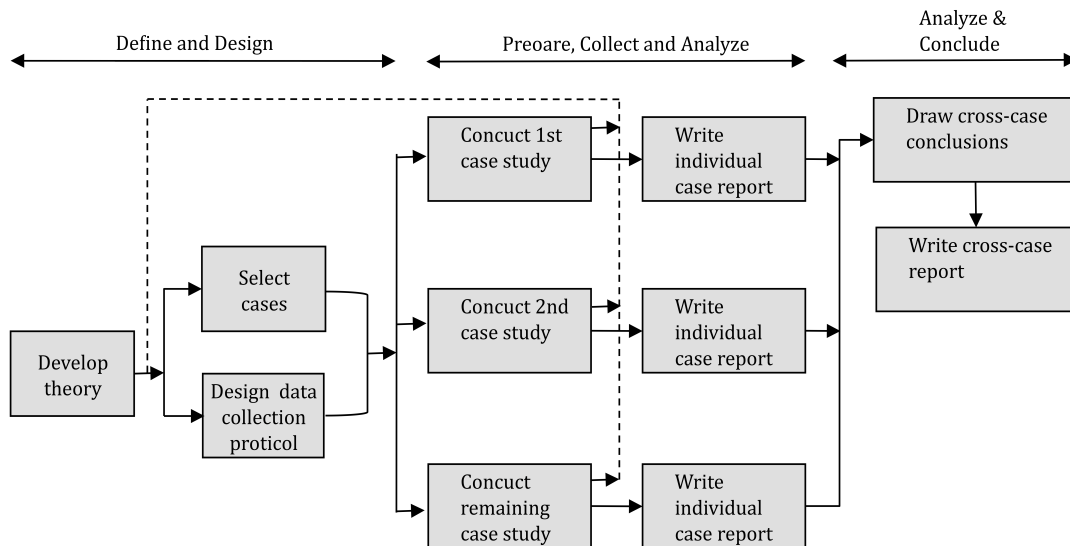


Figure 3.10. Case Study Method. Based on Yin (1994).

In order to be able to analyze the obtained case study data, it is important to code the collected data in a structured way. The data coding process often starts with “open coding”, i.e. the breakdown of case study data in order to analyze and develop categories for the obtained information. The second part of the data coding process, sometimes referred to as axial coding, helps provide greater insight into the data by making connections among the previously developed categories. The final step is the selective coding, i.e. the selection of a central category of analysis. Here, pattern matching is heavily relied upon and the identified patterns are analyzed in order to explain the area of interest.<sup>53</sup>

### Case study approach in this thesis

The purpose of the case studies in this thesis has been to answer problem statement C (see below), where the unit of analysis that the case studies has focused on is the pricing method:

- C. What pricing methods do functional substitutes use?
  - a. What are the disadvantages and advantages with their different pricing methods?
  - b. What effects do the pricing methods create in terms of:
    - i. Who bears the risk?
    - ii. What incentives are created from using these pricing methods?
  - c. What are the most salient convergent patterns between the industries?
    - i. How do certain service characteristics interplay with the choice of pricing method?

The approach of this case study has mainly been of descriptive character, since it seeks to describe the pricing methods used by different functional substitutes. A theoretical framework was built by gathering and evaluating existing research covering pricing, and the pricing of logistics services in particular. Based on this theoretical framework, parameters that are likely to influence the choice of pricing method have been tested and evaluated. A description of these parameters, as well as an explanation of how cases have been selected, is further discussed in chapter 3.4.

<sup>53</sup> Ellram (1996)

Since this case study aims to create knowledge about pricing methods, more than one case study object has been investigated. This defines the research approach as a multiple-case design. Multiple case studies make it possible to achieve replication and thus enabled us to test the theoretical framework several times.

Depending on whether the studied case companies use one single pricing method for all their services, or have different pricing methods for different offerings, the research design of this case study can hence, according to figure 3.9, be defined as either Type 3 or Type 4.

The same system that was developed for overall purpose of the thesis has been used to evaluate the functional substitutes (figure 3.10). Each specific case investigates hence both the factors that influence the choice of pricing method, and the effects created by using the method.

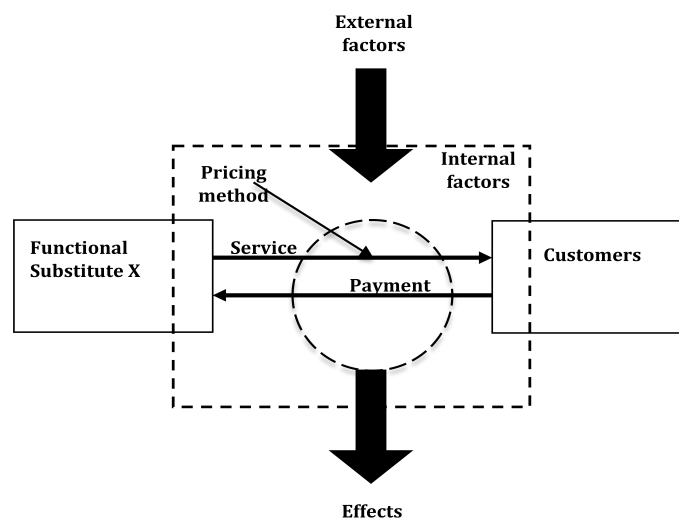
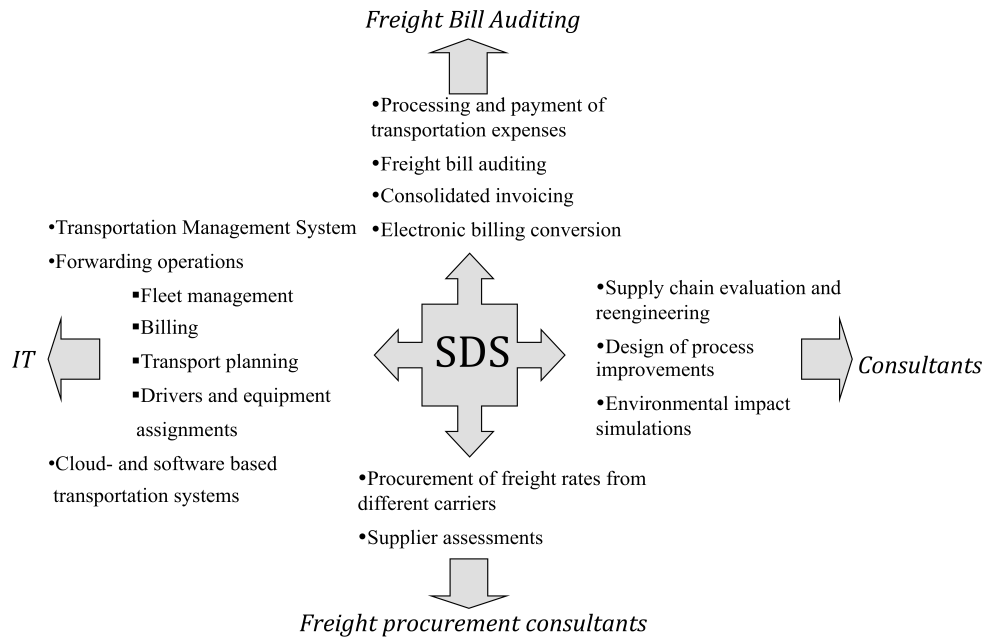


Figure 3.11. Close-up on the system applied to each specific case

### 3.4 Case selection

Information regarding the unit of analysis, i.e. the pricing method used, has been obtained by studying functional substitutes. Therefore, we categorized functional substitutes into suitable groups and developed a list of potential companies that could fit into each category. A list of all the activities offered by SDS on a strategic, tactical and operational level served as a starting point for the categorization, where each group of functional substitutes offers one or some services of that of SDS (see appendix 1). The categorization, as well as a short explanation of the activities included, is illustrated in figure 3.12.



*Figure 3.12. Functional substitutes to SDS*

A fifth category of functional substitutes that was discussed with SDS was the so-called Control Tower, i.e. the operational control center of the supply chain network that coordinates all activities and services, such as transport booking, transport administration, tracking, supplier audit, invoice control etc. However, we have not been able to find companies that are mainly devoted to this business area. It was thus decided to exclude Control Towers as a category of its own.

If the case selection is successful, it will act as support throughout the case study. Since the focus of this study is on service providers within the logistics services industry, the cases have been chosen in order to comply with the functional substitute criterion. Hence, at least one case will be studied within each category. However, the functional substitutes operate in different industries and, consequently, they might have different goals with the pricing of their services. In order to find convergent patterns between the different case study objects, several parameters that might influence the choice of pricing method were hence identified before selecting the cases (see table 3.1). The parameters were identified by studying theory covering service classification and through discussions with academics at the Faculty of Engineering, Lund University. Each case company will be asked to rank the service with respect to a number of service characteristics. The rankings will subsequently serve as a starting point when conducting the cross-case analysis.

<b>SERVICE CHARACTERISTICS</b>	<b>EXPLANATION</b>
Ease of specifying the service	How easy the service is to specify before purchase.
Complexity of service	Is it a simple service or does it require extensive knowledge?
Degree of customization	To what degree the service will be tailored to the customer's needs.
Nature of relationship with customer	Whether the relationship is long-term or short-term.
Scope of relationship with customer	If a customer purchases a service, what share of that service will be given to the service provider?

*Table 3.1. Parameters that may influence the choice of pricing method*

The three first service characteristics listed in table 3.2 were found to be relatively easy to anticipate beforehand without any previous knowledge of the case companies. The different cases have subsequently been selected in order to cover both extremes of these parameters, i.e. both highs and lows.

<b>SERVICE CHARACTERISTICS</b>	<b>GRADING</b>
Ease of specifying the service	High (Easy) / Low (Difficult)
Complexity of service	High (Complex) / Low (Simple)
Degree of customization	High (Customized) / Low (Standardized)

*Table 3.2. Service characteristics used for case selection*

A list of fifteen companies that would fit into the four categories of functional substitutes was generated and discussed based on the three service characteristics listed above. The Web was also searched and the companies' websites were explored. In this way, we verified the suitability of the companies for the purpose of the thesis. However, not all case companies that were suitable wanted to participate in the case study. We also had a limited time frame of 20 weeks, whereby some case companies were excluded due to geographical distance. In total, six companies agreed to participate in the study. A common feature among those, is that they are all located in Sweden, but might have customers abroad.

Due to the sensitive information that has been obtained from the companies regarding their pricing processes, fictitious names have been used. Therefore, the list of the fifteen companies will not be presented. In order to disguise the companies further, the size of the company will be referred to as small, medium or large according to the categorization in table 3.3 below.

<b>NUMBER OF EMPLOYEES</b>	<b>SIZE</b>
< 50	Small
50 - 500	Medium
> 500	Large

*Table 3.3. Categorization of the size of the company.*

The multiple case study consists of two IT-companies (IT-1 and IT-2), one Freight Bill Auditing-company (Economy Supplier), one company specialized in tender- and freight procurement processes (Transport Procurement), one consulting company (SCM Consulting), and finally one company that serves as a 4PL provider and, hence, performs all the activities offered by each functional substitute respectively (FreightMovement). The cases, as well as the anticipated ranking of the service characteristics that were used in the selection process, are shown in figure 3.4 below. (The actual ranking of the service characteristics, obtained through interviews with company representatives, is found in chapter 6).

COMPANY	EASE OF SPECIFYING SERVICE	COMPLEXITY OF SERVICE	DEGREE OF CUSTOMIZATION
IT-1	Relatively low	High	High
IT-2	High	Relatively high	Low
Economy Supplier	High	Relatively low	Low
TP	High	Relatively low	Low
SCM Consulting	Low	High	High
FreightMovement	Low	High	High

Table 3.4. Case objects and anticipated service characteristics (high versus low).

### 3.5 Data Collection

#### 3.5.1 Primary and secondary information

When conducting a research it is important to make a clear distinction between the different types of information used. For this reason, information is divided into either primary or secondary.<sup>54</sup> Primary information is first hand information and can for instance be obtained through questionnaires, interviews or observations. This generally requires significant resources but adds, on the other hand, credibility to the research. The major difference between primary and secondary information is that secondary information originally has been gathered for another purpose than that of the specific study. Secondary information, such as books or journals, is generally easier to obtain than primary information and, thus, secondary information requires less resources. However, the researcher must bear in mind that secondary information can be biased. To evaluate the reliability and objectivity of secondary information is hence important.<sup>55</sup>

#### 3.5.2 Interviews

Interviewing is a commonly used technique for collecting primary data. Especially when the data collection concerns personal opinions, sensitive questions or privileged information, interviews are often the preferred information gathering method<sup>56</sup>.

Interviews are mostly performed through oral communication and are conducted either face-to-face, which then is referred to as personal interviews, or over the telephone<sup>57</sup>. However, interviews can also be conducted online, e.g. through various messenger services, such as MSN Messenger, or take the form of an e-mail correspondence. Telephone interviews offer a more personal approach compared to online interviews, and are both less resource demanding and less time consuming than the personal

---

<sup>54</sup> Ibid.

<sup>55</sup> Björklund & Paulsson (2009)

<sup>56</sup> Denscombe (2009)

<sup>57</sup> DePoy & Gitlin (1999), p.232

interview. Personal interviews, on the other hand, enable the researcher to get a deeper understanding of the respondent. Due to the larger amount of resources required, however, the number of investigated objects is normally low.<sup>58</sup>

Interviews can be either structured, semi-structured or unstructured. Structured interviews are similar to questionnaires, but are mainly conducted face-to-face. This type of interview technique has the advantage of enabling the researcher to be in control of the sequence of questions asked and the pre-determined set of answers for the respondent to choose from. Structured interviews hence enable the researcher to standardize, since each respondent is given the exact same set of questions. For this reason, structured interviews are often the preferred choice for the gathering of quantitative data.<sup>59</sup>

Similar to when conducting a structured interview, the researcher uses a list of pre-determined questions also for the semi-structured interview technique. However, semi-structured interviews are more flexible and the questions asked do not have to follow a particular order. Furthermore, the respondents are allowed to explain their ideas more thoroughly than what is the case for structured interviews. Unstructured interviews, on the other hand, differ especially from structured ones by allowing the respondents to elaborate on their ideas. The researcher introduces the theme or subject to be discussed in the beginning of the interview and then lets the respondent answer freely.<sup>60</sup>

The interview technique chosen, and the degree of structure in the interview, hence depends on the characteristics of the questions, the number of people involved and the purpose of the data collection.<sup>61</sup>

### 3.5.3 Data collection in this thesis

Secondary information, such as publications and journals, was initially gathered in order for the researchers to gain a deeper understanding of the studied field. By doing so, problem statement A was addressed:

- A. What are the most common pricing methods that are discussed in research covering the third- and fourth-party logistics industry?

To begin with, the three largest journals covering logistics – *Journal of Business Logistics*, *International Journal of Physical Distribution & Logistics Management* and *International Journal of Logistics Management* – were browsed and articles covering pricing, contracting, and 3PL/4PL were studied in detail. Articles covering the aforementioned topics were also found using databases and search engines such as *LibHub*, *Business Source Complete*, *Retriever Bolagsinfo* and *Emerald*. The keywords that were used when searching the databases are: “pricing fourth-party logistics”, “pricing 4PL”, “pricing third-party logistics”, “pricing 3PL”, “pricing services”, “pricing logistics services”, “pricing methods”, “contracts 4PL”, “contracts 3PL”. Also, “pricing methods” and “pricing models” was searched for in combination with all of the aforementioned keywords. Pricing methods or models were also searched for more specifically, e.g. “value-based pricing”, “cost-plus pricing” etc.

During the empirical phase of the project, the information gathered has mainly been primary and has for the most part been obtained through interviews with personnel

---

<sup>58</sup> Denscombe (2009)

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> Svenning (2003)

from functional substitutes. Interviews with personnel at SDS were conducted in the initial project phase in order to get a more comprehensive understanding of SDS as a company and, hence, to be able to answer problem statement B.

- B. What pricing methods are currently used at SDS?
  - a. What are the disadvantages and advantages with the different pricing methods?
  - b. What effects do the pricing methods create in terms of:
    - i. Who bears the risk?
    - ii. What incentives are created from using these pricing methods?

Table 3.4 below summarizes the main sources of information used in the thesis.

CHAPTER	MAIN SOURCES OF INFORMATION
Introduction	<ul style="list-style-type: none"> <li>• Avlonitis &amp; Indounas</li> <li>• Lukassen &amp; Wallenburg</li> </ul>
Schenker Dedicated Services AB	<ul style="list-style-type: none"> <li>• Company website</li> <li>• Interviews with personnel at SDS</li> </ul>
Methodology	<ul style="list-style-type: none"> <li>• Arbner &amp; Bjerke</li> <li>• Gammelgaard, Britta</li> <li>• Persson, Göran</li> <li>• Ellram, Lisa</li> <li>• Eisenhardt, Kathleen</li> <li>• Yin, Robert</li> </ul>
Frame of Reference	<ul style="list-style-type: none"> <li>• Shipley &amp; Jobber</li> <li>• Lynch, Clifford</li> <li>• Sols et. al</li> <li>• Axelsson &amp; Wynstra</li> <li>• Avlonitis &amp; Indounas</li> <li>• Haldórsson &amp; Skjoett-Larsen</li> <li>• Lukassen &amp; Wallenburg</li> </ul>
The studied system at SDS	<ul style="list-style-type: none"> <li>• Interviews with personnel at STS (General Managers, Strategy Manager, IT-Manager etc.)</li> </ul>
Case Studies	<ul style="list-style-type: none"> <li>• Interviews with representatives from the six case companies (functional substitutes)</li> </ul>

*Table 3.4. The main sources of information used in the thesis.*

Regarding the case studies, interviews have been the main source of information. All interviews were conducted as personal interviews, since we believed that the companies would be more willing to share sensitive information during a personal meeting compared to a telephone interview. Other advantages with personal interviews are higher response rates and the ability of the interviewer to explain unambiguous questions to the respondents<sup>62</sup>. The interviews were systematic, using prearranged questions, and all case objects were given the same questions. The structure of the interviews, as well as the questions asked, can be seen in the Case Study Protocol (see Appendix 2). A list of the respondents; their title, main responsibilities and when the interviews took place is enclosed in Appendix 3.

---

<sup>62</sup> Churchill (1995)

The respondents were allowed to make digressions during the interviews and to discuss topics that were not directly asked about. The interviews hence had a semi-structured character, which made it possible to receive both company specific and individual information from each case <sup>63,64</sup>.

### 3.6 Case study and thesis execution

A conceptual framework that illustrates how this thesis has been carried out is shown in figure 3.13.

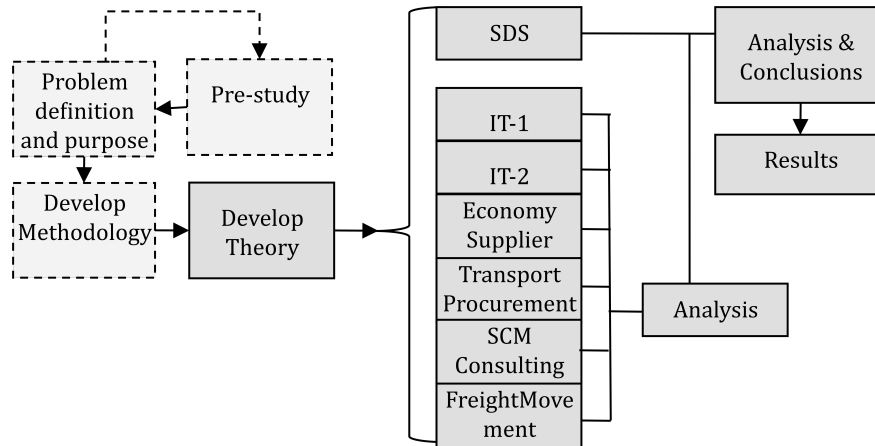


Figure 3.13. Case study and thesis execution.

Firstly, a frame of reference has been developed that focuses on the main areas pricing, services and 3PL/4PL, as well as the overlapping areas pricing of services and pricing of logistics services. The frame of reference has allowed us to get a more comprehensive understanding of the field of study, which has been useful both for the case selection process and when analyzing the information obtained from the case studies.

Based on the purpose of this thesis, the system shown in figure 3.4 and 3.5 was developed. The system illustrates the focus of this study; the pricing methods used within the logistics industry, the factors influencing the choice of pricing method and the effects created from using these methods. The developed system has first been studied through the perspective of SDS, and the pricing methods currently used at SDS have been investigated. The reason for this was to gain a deeper understanding of the services that SDS offers and how these services are charged. Thereafter, a multiple case study with six case objects has been conducted. The pricing methods used were examined and the studied service characteristics were ranked on a seven-level Likert scale. Since the case companies have been carefully selected based upon a number of different parameters (see Case selection 3.4), the cross-case analysis has provided us with information on how specific service characteristics can interplay with the pricing method and generate different effects. Together, the frame of reference and the conclusions from the cross-case analysis hence allowed us to discuss potential pricing methods for SDS and to find conclusions regarding when a certain pricing method could be more suitable than others.

<sup>63</sup> Tellis (1997)

<sup>64</sup> DePoy & Gitlin (1999)

### 3.7 Analysis

The analysis concludes the findings from theory and empirics, in order to fulfil the purpose of this thesis. The analysis starts by investigating if other advantages or disadvantages with those pricing methods discussed in the theory chapter were brought up in the case studies. If so, these are accentuated. Based on the joint picture of advantages and disadvantages with the different pricing methods, the analysis continues with a discussion regarding when a certain pricing method should be used, focusing on built-in incentives and risk transfer.

The cross-case analysis that follows investigates if, and how, the different service characteristics that were ranked in the multiple case studies are linked to the choice of pricing method(s). This part of the analysis also investigates if a general pattern for using certain pricing methods exists across the different industries that have been studied.

The final part of the analysis focuses on SDS and discusses potential pricing methods. Hence, this part of the analysis aims at answering the last problem statement:

- D. Based on the findings from the statements above, is there any indication that SDS should use other pricing methods?

This is partly done by comparing the service characteristics of that of SDS with the result from the cross-case analysis. However, other findings that have been made throughout the thesis are also considered and evaluated with respect to SDS.

### 3.8 Credibility

Any new research is going to be subject for scrutiny either by other academics or the public, if not by both. Therefore, it is a priority for any researcher to ensure quality and trustworthiness of the study that is being conducted. Four general concepts have been commonly used to establish the quality of empirical research. As case studies are one form of such research, these concepts are applicable in this case.

The following measurements must be taken into consideration<sup>65</sup>:

- *Construct validity*, to what extent the study measures what it is supposed to be measured
- *Internal validity*, (for explanatory or causal studies only) to what extent the case study can show causal-effect relationships
- *External validity*, to what extent the findings are generalizable
- *Reliability*, to what extent the investigator can repeat the case study and arrive at the same findings.

#### 3.8.1 Construct validity

Construct validity refers to how well the methods that are chosen in the study measure the situation that is under observation. In other words, how accurately does the study measure what intends to be measured? The construct in this sense is the notion or concept that determines what and how data is going to be collected. The potential risk that the researcher's subjective experience could influence the situation is subject for most criticism. However, there are three ways of strengthening the construct validity, namely, by<sup>66</sup>:

---

<sup>65</sup> Yin (1994) p. 33

<sup>66</sup> Yin (1994)

- *Multiple sources of evidence or Triangulation.* When using triangulation the researchers try to use multiple sources of data, theories, investigators and methodologies in order to find convergent patterns between different sources. In this thesis, secondary information, such as websites and folders, has been gathered about the case companies in order to confirm the data provided in the interviews.
- *Chain of evidence.* Enables other researchers to repeat the study with the same raw data and obtain similar findings. In this thesis the case study protocol that has been used when collecting data are enclosed in appendix 2. Due to the nature of the information obtained no names, neither of companies nor interviewees will be given. A list of the interviewees' title, main responsibilities and years with the company is, however, enclosed in appendix 3.
- *Having key informants review field notes.* Summaries of the discussion from both case studies and interviews have been sent to all respondents in order to mitigate the risk for potential misunderstandings.

### **3.8.2 Internal validity**

Internal validity does not concern this thesis, as the case studies do not aim to take an explanatory or causal approach.

### **3.8.3 External validity**

External validity addresses the issue whether the findings can be generalizable beyond the case that is under observation. Typically critics argue that there is lack of rigor especially in single-case studies. In this thesis, however, multiple case studies have been conducted, whereby the chance of finding replications and converging patterns increases. Nevertheless, the critics concerning external validity are related to the misinterpretation of the essence of case studies and the mistake of contrasting case studies to survey research. In survey research a sample that is selected correctly can be generalised to a larger population, which means that survey research relies on *statistical* generalization. In case studies, however, the aim is rather to make an *analytical* generalization. In such cases the purpose is to generalize from each case to a broader theory rather than generalizing quantitatively from samples to a larger population.<sup>68</sup>

### **3.8.4 Reliability**

Apart from determining the validity it is also important to verify the reliability of the study. This term refers to the ability for another researcher to follow the exact same procedure and conduct the study all over again and arrive at similar conclusions. Thus, the purpose of reliability is to minimize errors and/or biases. One way of establishing reliability is by keeping a case study protocol. This document includes a detailed description of the procedure followed in the specific case study, which will enable the reader to scrutinize the process that we have carried out.<sup>69</sup>

---

<sup>67</sup> Stuart, McCutcheon, Handfield, McLahlin, Samson (2002)

<sup>68</sup> Yin (1994)

<sup>69</sup> *ibid*

The table below gives an overview how credibility is established in this thesis:

<b>CHAPTER</b>	<b>METHOD</b>
<b>Construct validity</b>	<ul style="list-style-type: none"> <li>• Multiple sources of information/evidence: interviews, websites, folders etc.</li> <li>• Respondents have reviewed the field notes.</li> <li>• Discussion guides from the case studies are enclosed in appendix 2.</li> </ul>
<b>External validity</b>	<ul style="list-style-type: none"> <li>• Multiple cases</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>• The case study protocol is enclosed in appendix 2. It is thus possible to follow the procedure that has been carried out in detail.</li> </ul>

*Table 3.5. An overview of how credibility is established in this thesis.*

## 4. Frame of reference

---

*The area of specific interest in this thesis is pricing of logistics services and, in particular, the 4PL industry. However, since the field of research concerning pricing of the 4PL industry is scarce, we have taken a more holistic approach and explored three main fields; pricing methods, services and the 3PL/4PL industry.*

---

### 4.1 Structure

This chapter aims at answering problem statement A:

- A. What are the most common pricing methods that are discussed in research covering the third- and fourth-party logistics industry?

The three main fields of interest, pricing methods, service classification and the 3PL and 4PL industry, are illustrated as circles in figure 4.1 below. The intersections of the circles, i.e. pricing of services and pricing of logistics services, have also been investigated.

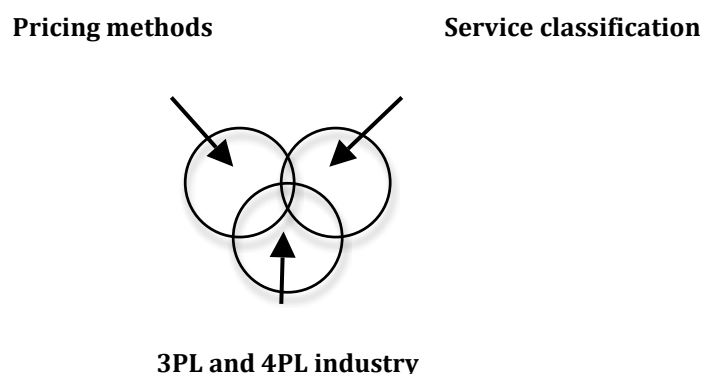
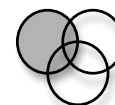


Figure 4.1. Illustration of the frame of reference.

We will start by introducing the main concepts of pricing methods, and then touch briefly on the general concept of service classification. The intersection of these two areas, i.e. pricing of services, will then be discussed in the following subchapter. Thereafter, the 3PL and 4PL industry will be introduced, whereby pricing of logistics services and, more specifically, pricing from a 4PL perspective, will be explored.

### 4.2 Pricing methods



Pricing is a highly complex process and, therefore, many companies have historically truncated the process by simply applying a cost-based formula. However, there are several other aspects than costs that can influence the pricing making-decision. Essentially, there are three parameters that limit the ability to set prices, namely the internal short-term and long-term costs, external factors that influence the market such as competitors' prices, and finally, the customer perceived value. Together, these parameters, i.e. cost, market and customer perceived value, create a viable gap where profitable pricing is possible (see figure 4.2)<sup>70</sup>.

We have chosen to include both the aforementioned perspectives as well as the payment principle, e.g. a fixed or a variable price, in the term pricing method. Hence, a pricing

---

<sup>70</sup> Shipley & Jobber (2001)

method is in this thesis has two components; it is cost-, market- or value-based and is built up by either a fixed, variable or a mixed payment principle.

The following chapter will present of a number of pricing methods with respect to the three perspectives: cost-,market- and value based pricing, followed by a summary of common payment principles. However, there is no intention of providing a complete list of pricing methods. The aim is rather to introduce the most common pricing methods for either functional substitutes to a 4PL provider, or the logistics services industry in general.

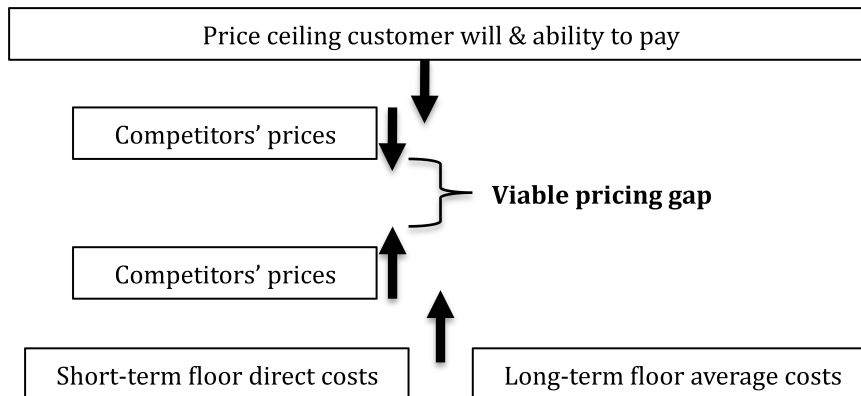


Figure 4.2. The three parameters create a viable gap where profitable pricing is possible.

#### 4.2.1 Cost-based pricing methods

The cost-based pricing methods calculate a price that is derived from the provider's costs, whereby an additional profit margin is added in order to obtain the selling price<sup>71</sup>. One of the most commonly used cost-based pricing methods is cost-plus pricing, described below.

##### 4.2.1.1 Cost-plus pricing

Cost-plus pricing is the most extensively used pricing method. The price is determined by a forecast of sales volume and a calculation of direct costs, whereby an average cost is estimated and a predetermined percentage profit is added. The sum of the average cost and the percentage profit results in the selling price<sup>72</sup>. A price derived from a cost-plus pricing method will in formulas be referred to as  $p_{cost}$ , where  $p_c = c(1+\beta)$  and  $c$  = average costs and  $\beta$  = profit margin. The salient disadvantage with a cost-plus method is that there are no built-in incentives for the provider to reduce costs or improve productivity. The advantage, on the other hand, is the ability for the customer to scrutinize the provider's costs. A more comprehensive list of the advantages and disadvantages with cost-plus pricing is provided in table 4.1<sup>73</sup>.

<sup>71</sup> Lynch (2000), p.90

<sup>72</sup> Shipley & Jobber (2001)

<sup>73</sup> Lynch (2000), p. 90

<b>Cost-plus pricing</b>	
Advantages	<ul style="list-style-type: none"> <li>• No need to increase prices for uncertainties</li> <li>• May be used in combination with other methods</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• If provider improves productivity, benefits will accrue the customer</li> <li>• The provider's profit is known and capped (if using a transparent contract)</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• No built-in incentive to reduce costs and improve productivity</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• Customer needs to monitor cost levels and establish a cost benchmark</li> </ul> <p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• The providers profits are known and capped</li> </ul>

Table 4.1. Advantages and disadvantages with cost-plus percentage. Based on Lynch (2000).

#### 4.2.2 Market-based pricing

Market-based pricing is set based upon a number of factors that are solely generated by the market conditions. Such conditions are demand, supply, stock positions, the economic situation and political factors<sup>74</sup>.

Companies that use market-based pricing methods usually try to match the prices of their competitors. Either they try to:

- *price similarly* to rivals or
- *proportionally maintain the price difference* in order to preserve the price gap between the services, i.e. price above or below competitors.

A price that is derived from a market-based pricing method will in formulas be referred to as  $p_{\text{market}}$ . The arguments for and against a market-based pricing method are<sup>75</sup>:

<b>Market-based pricing</b>	
Advantages	<ul style="list-style-type: none"> <li>• Simple to administer, since the price is determined by the market.</li> </ul> <p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• Allows the follower to benefit from common price increases and to avoid to be disadvantaged when competitors cut prices</li> <li>• May trigger price wars</li> </ul>
Disadvantages	<p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• Ignores the company's costs</li> <li>• Companies cannot be sure of what their competitors prices will be in the future, only what they are today</li> <li>• May ignore other objectives than competitiveness</li> </ul>

Table 4.2. Advantages and disadvantages with competitor-based pricing. Based on Shipley & Jobber (2001).

#### 4.2.3 Value-based pricing

The salient disadvantage with the two of the abovementioned pricing methods is that they do not reflect the value that is created for the customer, nor do they incorporate explicit incentives for the provider to reduce costs and improve the productivity<sup>76</sup>. As a consequence, pricing methods such as customer perceived value pricing, gain-sharing and performance-based pricing methods have emerged.

<sup>74</sup> Chopra & Meindl (2001)

<sup>75</sup> Shipley & Jobber (2001)

<sup>76</sup> Lynch (2000)

#### 4.2.3.1 Customer perceived value pricing

A value-based price is established through estimating the perceived value of the service for the customer. When a price is derived from such logic it will in formulas be referred to as  $p_{\text{value}}$ . Customer perceived value pricing has received increased attention in the last couple of years<sup>77</sup>. It has been observed that “... *the profit potential for having a value-oriented pricing strategy that works is far greater than with any other pricing method*” (Monroe, 2002 p. 36). Nevertheless, although customer perceived values pricing has been subject to a surge of interest, the pricing method is far more recognized in the academic world than it is practised in reality<sup>78</sup>. It is suggested that this is primarily due to the fact that value is difficult to ascertain, much more difficult than ascertaining the cost for a service. Moreover, value is not only difficult to estimate, but also unpredictable, varied and difficult to analyse<sup>79</sup>.

Economic Value Analysis (EVA) is a tool that is designed to comprehend and quantify economic value of a given offering for a potential customer segment. The tool establishes the perception of value for a product relative to closely competing offerings. A value reference is hence determined for the competing product, which corresponds to the life cycle cost that the customer will incur by purchasing the product. The provider then sets a price that will provide the customer with life-cycle costs that are less than that of the reference product<sup>80</sup>.

However, there are two ways in which economic value is generally interpreted, which has resulted in different modifications of the EVA, e.g. the EVC tool developed by Forbis & Mehta (1981), or the framework developed by Hinterhuber (2004). The first interpretation defines value as the difference between perceived benefits and sacrifices, e.g. the customer’s willingness to pay and the actual price paid. The second line of thought, defines economic value as “*the maximum amount that a customer would pay to obtain a product*”, (Hinterhuber, 2004). The latter of the interpretations has been used when discussing customer perceived value pricing in this thesis.

A survey that was conducted by Hinterhuber (2008) presents the key obstacles that companies face when adopting a value-based pricing method. It also provides solutions of how to overcome these barriers. The following issues were addressed:

##### Problem 1. Difficulties in making value assessments

Solutions:

1. *Expert interviews.* People from the marketing, product management etc can be asked to evaluate the customer value of new offerings.
2. *Focus group assessments.*
3. *Conjoint (or trade-off) analysis.* Through research customers’ attitude towards a set of potential products offerings can be understood.

##### Problem 2. Difficulties with communicating value

Solutions:

1. *Communicating product features.*
2. *Communicating customer benefits.*
3. *Communicating benefits in accordance with customer needs.*

##### Problem 3. Difficulties with market segmentation

Solution:

---

<sup>77</sup> Shipley & Jobber (2001)

<sup>78</sup> Hinterhuber (2008)

<sup>79</sup> Lundén (2008)

<sup>80</sup> Thompson & Coe (1997)

1. *Using a needs-based market segmentation.* Such segmentation allows for marketing and pricing strategies to cater for various segments and not only for the segments that are presumed to care about price.

A list of the advantages and disadvantages with customer perceived value pricing is provided in table 4.3 below<sup>81</sup>.

<b>Customer perceived value pricing</b>	
Advantages	<ul style="list-style-type: none"> <li>• Is linked to the customers' needs</li> </ul>
Disadvantages	<b>From a provider's perspective:</b> <ul style="list-style-type: none"> <li>• Data is difficult to collect and interpret</li> <li>• Customer value is not given, but needs to be communicated</li> </ul>

Table 4.3. Advantages and disadvantages with value-based pricing. Based on Hinterhuber (2008).

#### 4.2.3.2 Gain-sharing

When using gain-sharing, the provider of the service and the customer work together in order to reduce costs. In doing so, the service provider will be exposed to potential losses, but will at the same time receive a pre-determined share of the profit if the agreement is successful<sup>82</sup>.

Gain-sharing is a function  $p(P) = \beta * P$ , where  $\beta$  equals the share of the profit that the provider receives for  $0 \leq \beta \leq 1$ . The contract might also include a pre-established fixed price. In that case the function is formulated as  $p(P) = A + \beta * P$  where A corresponds to the fixed fee, and  $\beta$ , similarly, equals the share of the profit that the provider receives for  $0 \leq \beta \leq 1$ .

However, in order for gain-sharing to be carried out successfully some issues must be considered before starting the project<sup>83</sup>:

---

<sup>81</sup> Hinterhuber (2008)

<sup>82</sup> Thomson & Anderson (2000)

<sup>83</sup> Ibid.

*Step 1. Assess customer measurement system.* The first step enables the provider to evaluate the customer's current cost measurement system. The cost system is paramount in order to determine what cost savings that have been created throughout the process. Inadequate measurement systems are often one of the biggest issues in gain-sharing.

*Step 2. Determine the processes to be included in the agreement.* There are always costs that the provider cannot influence, such as capital equipment, other irregular purchases or agreements with other providers. Consequently, a careful examination of the variables that the provider can control, as oppose to variable they cannot control, must be examined and carefully listed.

*Step 3. Build a historical database.* Once having determined what processes to include in the agreement, the creation of a historical database is crucial. This database will help the provider in mapping the customer's current situation and establish a baseline for the processes that are going to be examined; what is the past average usage of a certain service/product, is there any variation in this pattern etc.

*Step 4. Reach agreement on responsibility for measurement.* It must be established from start who is going to measure the progress in terms of benefits and cost. In order to avoid disputes between the two parties, it is recommendable to have representatives from both parties present when doing so.

*Step 5. Document the mechanisms for sharing risks and gains.* When quantifying benefits and costs, the two parties must agree upon what risks and benefits that will be shared, how they will be shared and when the same is going to be transformed into monetary payouts. However, in order for a gain-sharing agreement to work out, communication and sharing of information are crucial. Both parties must share their perception of risks, and identify each other's capabilities in order to evaluate who is best suited for managing the risks that are identified.

*Step 6. Outline specific actions and initiate the agreement.* Both parties must agree upon on a start and end date for the agreement. By doing so each party will have a time frame to achieve the pre-established goals.

A summary of all the advantages and disadvantages with gain sharing is presented in table 4.4 below.

<b>Gain-sharing</b>	
Advantages	<p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• Improves the comprehension of its own costs</li> <li>• Improves operational efficiency</li> <li>• Lowers total cost</li> </ul>
Disadvantages	<p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• The customer might not want to share sensitive information</li> <li>• Difficulties in measuring performance</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• Pre-agreement of base lining requires sharing of sensitive information</li> <li>• Difficulties in measuring performance</li> </ul>

Table 4.4. Advantages and disadvantages with gain-sharing. Based on Thomson & Anderson (2000).

#### **4.2.3.3 Performance-based pricing method**

Another way of incorporating incentives in the pricing method is by using performance-based pricing. A set of target goals is negotiated initially, and if these are exceeded within a specific time frame, the provider will be given a bonus<sup>84</sup>. Likewise, if the provider underperforms a penalty will be charged. The difference between performance-based pricing and more traditional pricing methods, such as cost-plus pricing, is hence that it contracts for results, and not for resources. This way of pricing is

---

<sup>84</sup> Lynch (2000)

becoming more widely used, and it represents a transition from telling the provider what to do and how to do it, to telling the provider what to achieve and thereby relying on its knowledge and competence to fulfil the task. In this way, the provider will get more flexibility to perform the activity, which in turn will encourage innovation and creativity<sup>85</sup>.

However, there is no “one-size fits all”. Performance-based contracts need to be tailored to every specific situation, where parameters such as operational environment and projected service life are important to take into consideration. Moreover, choosing the right service provider is a key success criterion. Aspects such as domain knowledge, core competencies and skills, business processes and methodologies, business stability and model, must be taken into consideration and be carefully evaluated<sup>86</sup>.

The transfer of responsibilities is not risk-free and it is therefore crucial to have a thorough agreement on the metrics that are going to be used. It is also paramount to have a reward scheme that is linked to the achieved improvements. The issue, however, is to identify the performance metrics that can lead to the desirable results<sup>87</sup>. In fact, experience has shown that it is often difficult to realize those results. Sols, Nowick and Verma (2007) call for the need to establish a reference point or year, and to calibrate a cost and demand function during that reference year. Furthermore, they argue that historical data on performance is crucial for a performance-based contract to work out, and that responsibilities should be identified and delimited of all the parties involved. If not, disputes might be a frequent issue. Another key point is that the bonus/penalty scheme should be measured over a period of time. By doing so, some of the penalties can be balanced by some of the bonuses<sup>88</sup>.

Altogether, it is important to ensure that the incentives for both the customer and the provider are valid for the entire contract duration. This ensures motivation and reduces the risk for arguments. Berends (2000) also stresses the importance of staff continuity for contract success and the need for extensive customer involvement in the continuous evaluation of the performance.

A summary of all the advantages and disadvantages with performance-based pricing is presented in table 4.5 below.

<b>Performance-based pricing method</b>	
Advantages	<ul style="list-style-type: none"> <li>• Built-in incentives to reduce costs and improve productivity</li> <li>• Alignment with customer</li> <li>• The risk is born by the provider</li> <li>• Flexibility for the provider</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Difficulties in identifying performance metrics</li> <li>• Difficulties in achieving results</li> <li>• Ambiguous metrics might provoke disagreements.</li> </ul>

*Table 4.5. Advantages and disadvantages with a performance-based pricing method. Based on Sols et. al (2007).*

---

<sup>85</sup> Sols et al. (2007)

<sup>86</sup> Ibid.

<sup>87</sup> Lynch (2000)

<sup>88</sup> Ibid.

#### 4.2.4 Payment principles

Irrespective of the source of information that is used when setting a price (the cost of providing the service, how the market sets its prices or what value that the customer perceives), there are several ways in which a contract can be designed:

##### 4.2.4.1 Fixed price

A fixed price is set when the buyer knows the price prior to the purchase. This implies that the risk is born by the provider as uncertainties might make the service more expensive than calculated. The risk is, however, normally hedged by adding a premium<sup>89</sup>. A fixed price,  $p$ , can be determined by the function  $p = f(q) = A$ , where  $A$  is a constant price for the business deal, i.e. for any volume  $q$ .

Fixed price	
Advantages	<p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• The provider takes on the risk</li> <li>• Most appropriate when uncertainty is low and risks are controllable by the provider.</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Might cause disagreement about what is included in the price</li> <li>• Does neither take the competition into account nor the customers willingness to pay.</li> <li>• Inappropriate when uncertainties are high.</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• The provider will add a premium for the cost of risks</li> </ul>

Table 4.6. Advantages and disadvantages with a fixed price. Based on Sols et al. (2007).

##### 4.2.4.2 Variable price

A variable price can take various forms:

**Transaction-based pricing (or pay-per-use).** The transaction-based payment principle is used within for example the IT industry, where customers typically are charged with a fee that is linked to the usage of the service. The usage is in turn assessed through the number of transactions that the customers execute during a period of time. One of the salient advantages is that value maximization is ensured for both parties; resources are used efficiently and economies of scale are exploited<sup>90</sup>.

The price  $p$  is defined by the function  $p = f(q)$  of the supplied quantity  $q$ . The function could then take a continuous or discontinuous form (see Quantity discount 4.2.4.4). Moreover, beside the quantity  $q$  that is supplied, there are other external factors that can influence the fee, i.e.  $p = f(q_0, q_1, \dots, q_2)$ . Thus, variable fee pricing can be either static or dynamic in nature (figure 4.3). In static variable pricing the price is constant and is not subject to any change. The dynamic scheme, on the other hand, allows for a number of external variables to influence the price. These could either be resource related such as the service provider's capacity utilization, or the customer's willingness to pay, market conditions or prices of competitors<sup>91</sup>.

---

<sup>89</sup> Lundén (2008)

<sup>90</sup> Miriyala & Xavier (2006)

<sup>91</sup> Eckert et al. (2009)

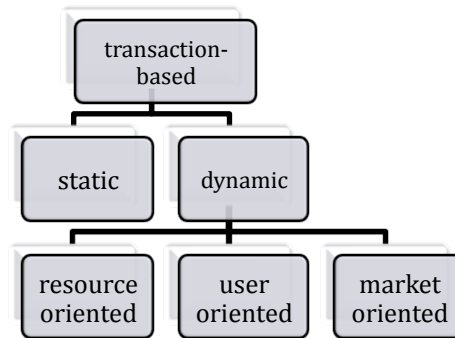


Figure 4.3. The variable fee can be either static or dynamic<sup>92</sup>.

In order for a transaction method to be applicable, the service must comply with a number of criteria. The service should<sup>93</sup>:

- Be a standardized process.
- Have repeatable transactions. The process is often repeated and with a short-time frame, e.g. an hour or a day or a week
- Have a clearly defined beginning and end.
- Be easy to monitor/track/measure
- Be of short duration (hours or days)

Transaction-based pricing that is static in nature is often referred to as *unit rates*, i.e. a fixed price is charged per unit, such as kilos, time etc. The price,  $p$ , is in this case determined by  $P(q) = p \cdot q$ , where  $q$  is the number of units, kilos etc. and  $p$  is the price per unit<sup>94</sup>.

A unit rate where a price ceiling has been established beforehand is referred to as *running cost per unit with a price ceiling*. The price,  $p$ , is determined by the function  $P(t) = p \cdot q$ , where  $q$  is the number of units purchased during time  $t$ ,  $p$  is the price per unit and  $P(t) \leq C$ , where  $C$  is the price ceiling<sup>95</sup>.

The advantages and disadvantages with a transaction-based contract are listed in table 4.7 below.

The transaction-based method	
Advantages	<ul style="list-style-type: none"> <li>• Flexible and variable cost structure</li> <li>• Closely linked to customer's business cycle</li> <li>• Enhances visibility into consumption pattern</li> <li>• Alignment of incentives               <ul style="list-style-type: none"> <li>◦ Lower cost per transaction, exploiting economies of scale. These savings can be passed on to the client.</li> </ul> </li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• Easier to compare prices with competitors</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• May not be directly tied to customer's business outcome.</li> </ul>

Table 4.7. Advantages and disadvantages with a transaction-based contract. Based on Miriyala & Xavier (2006) and Agrawal et. al (2010).

<sup>92</sup> Ibid.

<sup>93</sup> Miriyala & Xavier (2006)

<sup>94</sup> Lynch (2000)

<sup>95</sup> Lundén (2008)

#### 4.2.4.3 Mixed price

A mixed pricing method combines a fixed and a variable fee<sup>96</sup>.

#### 4.2.4.4 Quantity discounts

In some cases, the cost for the service is constant regardless of the volume. However, in other cases the pricing structure creates economies of scales, which yields a lower price above a certain quantity. The most common discounts are the all unit quantity discount and the marginal unit quantity discount (multi-block tariff)<sup>97</sup>.

**All unit discount.** When applying an all unit discount there are certain breakpoints  $q_0, q_1 \dots q_r$ , where  $q_0 = 0$ , that set a price for a certain volume. For example, if an order is placed for the quantity  $q_i$  but smaller than  $q_{i+1}$ , then each unit will be purchased for  $p_i$ . Typically, the cost will be reduced when the volume increases, that is,  $p_0 > p_1 > p_2 \dots p_i$ . For all volumes, the average price varies with the quantity purchased. That implies, that for certain volumes it is cheaper to buy  $q_{i+1}$  units than to buy  $q_{i-1}$  units. The optimal volume can be calculated for each cost  $p_i$  (this requires a volume between  $q_i$  and  $q_{i+1}$ ). The formula will give the volume that minimizes the overall cost. For each value of  $i$ ,  $0 < i < r$ , evaluate:<sup>98</sup>

$$Q_i = \sqrt{\frac{2DS}{hC_i}}$$

**Marginal unit quantity discount.** The marginal unit quantity discount also includes breakpoints,  $q_0, q_1 \dots q_r$ , however, in this case the breakpoints do not correspond to the average unit cost but rather the marginal unit cost. If an order with a volume  $q$  is placed the first  $q_1 - q_0$  units are priced at  $p_1$ , whereas the next  $q_2 - q_1$  are priced at  $p_2$ <sup>99</sup>.

For each value  $0 \leq i \leq r$ , let  $p_i$  be the cost of purchasing  $q$  units. Define  $P_0 = 0$  and  $P_i$  for  $0 \leq i \leq r$  as follows<sup>100</sup>:

$$P_i = p_0(q_1 - q_0) + p_1(q_2 - q_1) + p_2(q_3 - q_2) \dots + p_i(q_i - q_{i-1})$$

#### 4.2.4.5 Price discrimination

Price discrimination or price differentiation is the notion of charging for the same product at different prices<sup>101</sup>. Hence, price discrimination exists when price differences across customer segments cannot be entirely explained by variations in marginal costs. To price according to the price elasticity of each specific customer segment can increase the company's profits, since more surplus is extracted from the elastic customer segments<sup>102</sup>.

---

<sup>96</sup> Eckert et al. (2009)

<sup>97</sup> van Weele (2005)

<sup>98</sup> Ibid.

<sup>99</sup> Ibid.

<sup>100</sup> Ibid.

<sup>101</sup> Krugman & Obstfeld (2003), p.142

<sup>102</sup> Stole (2003)

## 4.2.5 Combining different pricing methods in order to transfer risk and create incentives

Different markets and environments call for different pricing methods. In order to transfer risk and/or create incentives, some of the previous mentioned pricing methods are sometimes combined.

### 4.2.5.1 Cost-plus management fee (cost-plus fixed fee)

Cost-plus management fee, or cost-plus fixed fee, is slightly different to the pure cost-plus method. The provider is reimbursed for all expenses associated with the service, the difference however, is that an additional management fee is charged as a fixed price per month or year, which represents the provider's cost to perform the service<sup>103</sup>. The risk is still entirely born by the customer, but the structure can encourage the provider to enhance management efficiency. Nevertheless, ideally the cost-plus management fee method should be used in conjunction with gain sharing<sup>104105</sup>.

Cost-plus management fee can be described as a function  $p(q) = A + p_{\text{cost}} * q$ , where  $A$  is a constant for the fixed management fee, and  $p_{\text{cost}}$  is the price per unit for any volume  $q$ .

Cost-plus management fee	
Advantages	<ul style="list-style-type: none"> <li>• No need to add a risk premium</li> <li>• Reduces disagreements over separate charges and service levels</li> <li>• Creates incentives to enhance management productivity</li> <li>• Useful when volume is uncertain</li> <li>• Places a cap on provider profits, and the level of profit and overhead is fixed and known</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• No built-in incentive for passing along productivity enhancements</li> <li>• May be difficult to determine the appropriate level of the fee</li> <li>• No incentive for the provider to expand management efforts if needed</li> <li>• No built-in incentives to improve effectiveness (service level)</li> </ul>

Table 4.7. Advantages and disadvantages with cost-plus management fee. Based on Lynch (2000).

### 4.2.5.3 Cost-plus incentive fee

With a cost-plus incentive fee contract, the customer will pay all costs associated with the service including the labour cost for the provider. Typically, purchase orders for materials and equipment are placed after competitive tendering on a fixed price basis. The customer and the service provider then agree upon a target cost for the entire project. Thereafter, an incentive fee is established which is usually comprised of two elements. The first element,  $IF_1$ , is fixed at the start of the project and is independent of actual project costs,  $c$ , i.e. the provider will be compensated irrespective of if the target cost,  $B$ , is reached or not. However, if the actual project cost is lower than the target cost, a second element,  $\alpha(B-c)$ , is added which gives the provider right to a share,  $\alpha$ , of that underrun of the target cost<sup>106</sup>.

<sup>103</sup> Sols et al. (2007)

<sup>104</sup> Ibid.

<sup>105</sup> Lynch (2008)

<sup>106</sup> Berends (2000)

The function is given by:

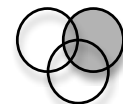
$$IF(c) = \begin{cases} IF_1 + IF_{2\max} & \text{for } c < \left(B - \frac{IF_{2\max}}{\alpha}\right) \\ IF_1 + \alpha(B - c) & \text{for } \left(B - \frac{IF_{2\max}}{\alpha}\right) < c < B \\ IF_1 & \text{for } B < c \end{cases}$$

where  $B$  is the target cost,  $c$  is the actual project cost,  $IF_1$  the fixed element of the incentive fee,  $IF_{2\max}$  the ceiling of the underrun element of the incentive fee, and  $\alpha$  the provider's share of the difference between budgeted ( $B$ ) and actual costs ( $c$ ).

When using this pricing method the risk is born by the customer. The only part that is at stake for the provider is the share of the profit. This, in combination with the open book nature of the contract, implies that the customers do not have to pay a premium to the provider for the cost of risk. Berends (2000) argues that this pricing method allows for the best risk allocation: the customers are best placed to bear the risk of cost increases, whereas the service providers are best placed to manage the risk. The latter is ensured by the performance incentives in the pricing method.<sup>107</sup>

Cost-plus incentive fee	
Advantages	<ul style="list-style-type: none"> <li>The risk is born by the customers</li> <li>Built-in incentives for the provider to reduce costs and enhance productivity</li> <li>No premium is added</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>Lack of competition might result in inflated project costs</li> </ul>

Table 4.8. Advantages and disadvantages with cost-plus incentive fee. Based on Berends (2000).



### 4.3 Service classification

Industrialized countries have experienced an economic shift from production-orientation towards service-orientation. As a matter of fact, services make up the major part of the advanced economies of today<sup>108</sup>. In 2008, services generated more than 70 percent of the GDP in OECD countries<sup>109</sup>.

A major reason for the growing importance of services is the ongoing specialization, where companies are targeting smaller niches of customers on a global market<sup>110</sup>. The increasing degree of specialization has forced companies and organizations to focus on what they can do best, i.e. on their core competencies. Thus, due to a decrease in the amount of value added internally, non-core activities have instead been increasingly outsourced and purchased as services from specialized service providers<sup>111,112</sup>. Axelsson

<sup>107</sup> Berends (2000)

<sup>108</sup> Baida et. al (n.a.)

<sup>109</sup> Hoekmann & Mattoo (2008)

<sup>110</sup> Axelsson & Wynstra (2002), p.9

<sup>111</sup> Ibid., p.6

and Wynstra (2002) describe three main reasons to why a company would choose to purchase services from an external provider<sup>113</sup>: the company lacks the capabilities needed to perform the service effectively, or the company lacks the ability to perform the service efficiently, and/or lastly, the company lacks the capacity to perform the service itself. Together, this has led to an increase in the demand for business services.

In literature discussing services, there is little consensus on how services should be classified<sup>114</sup>. Some classification schemes use a small number of classification dimensions, while other use a larger number. Moreover, many schemes are designed from a supplier perspective while others are designed from a demand perspective<sup>115</sup>. Imperative for the classification, however, is that services within a category should be similar and that the differences between categories should be significant<sup>116</sup>.

Axelsson and Wynstra discuss different approaches to classifying services. One method mentioned is to classify according to *the type of service offered*, e.g. to distinguish between facility services, financial services, information and communication technology services (ICT), transportation and distribution services etc. However, such a classification might be difficult to carry out, since more complex service packages will be difficult to classify into just one category. For instance, the design of a website oriented towards consumers can be seen both as an ICT service and a marketing service<sup>117</sup>.

Another approach could be to classify according to *the type of service provider*. Axelsson and Wynstra differentiate between routine service providers and professional service providers. A routine service provider is characterized by the ability to solve relatively simple problems. The service offered is usually standardized and delivered during a particular period of time. Some examples of routine services are cleaning, travel, transportation and administration. A professional service provider, on the other hand, is characterized by the ability to solve complex problems. The service offered is non-standardized in character and usually the customer has only vaguely defined needs. Depending on the situation, a service provider can at the same time act as a routine service provider in some areas and as a professional service provider in others<sup>118</sup>.

According to Axelsson and Wynstra (2002), a third way to classify the services spectrum is in terms of *the internal characteristics of the service*:

- ***Long-term versus short-term services***

Long-term services are often based on contracts and are usually paid with a fixed price based on annual agreements. Sometimes, however, a premium is added to the annual contract, which depends on how often the service is being used. Short-term services are often project-like and may or may not take place within the context of a more long-term relation.

---

<sup>112</sup> Hoekmann & Mattoo (2008)

<sup>113</sup> Axelsson & Wynstra (2002), p.20

<sup>114</sup> Baida et. al (n.a.)

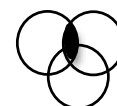
<sup>115</sup> Cunningham et. al (2004)

<sup>116</sup> Axelsson & Wynstra (2002),

<sup>117</sup> Ibid., p.31

<sup>118</sup> Axelsson & Wynstra (2002), p.32

- **Standardized versus non-standardized business services**  
Both standardized and non-standardized services can be either long-term or short-term. A typical standardized service is a cleaning service while a non-standardized service could be financial advisory.
- **Simple versus Complex business services**  
Both simple and complex services can be either long-term or short-term. A basic or simple service can be either standard or customized, while more knowledge-based complex services in general have more elements of customization.



## 4.4 Pricing of services

To date, pricing of services has received very little attention from academics, far less than pricing of products. However, as services are becoming increasingly important for many companies, the need of understanding service pricing has grown<sup>119</sup>. The scarce share of research that has been conducted within the field concerns specific industry domains. The question, however, is whether there is a common thread across the industries. Is there something to learn from one industry that could be applicable to another? Almost no researchers have investigated this field<sup>120</sup>.

### 4.4.1 Service characteristics linked to pricing in the literature

Two key characteristics of services have been found to affect pricing, regardless of industry. The first one, ease of specifying the service in advance, has an implication on the price *method*, whereas the last characteristic, customization, is linked to the price *level*.

**Ease of specifying the service in advance.** It has been suggested that elasticity of demand is a function of the number of alternatives that the customer is aware of prior to the purchase. The number of alternatives in the customers' mindset depends on whether the service is search, experienced or credence-based. Search-based services are referred to as services that can be evaluated prior to purchase. Experience-based services can only be evaluated after the purchase. The credence-based services, on the other hand, cannot even be judged confidently after the purchase. Hence, the amount of knowledge that is available to customers varies, being the maximum for search-based services and the least for credence-based services. It is thus argued that search-based services are more price-elastic than credence based-services. Furthermore, it is argued that the switching costs from one provider to another will be lower relative to the gains for a search-based service than for a credence-based service. Thus, companies that offer services that are credence-based tend to command higher price and employ price differentiation, while companies that offer search-based services are more likely to employ a competitive pricing strategy<sup>121</sup>.

**Customization.** Roth et al. (2006) discuss the implications of a bargaining strategy for services. Such a strategy enables the customer and the service provider to negotiate about the price prior to purchase. The authors suggest that

---

<sup>119</sup> Docters et al. (2004)

<sup>120</sup> Ng (2008) p.13

<sup>121</sup> Mitra & Capella (1997)

a bargaining strategy should be applicable on services with a high level of customization, when cost to go through such a process is low and the bargaining power of the customer is moderate<sup>122</sup>.

#### **4.4.2 How different service industries price their offerings**

Avlonitis and Indounas (2005, 2006) have conducted research on pricing within service sectors. More specifically, they have investigated how a number of service characteristics, organizational and environmental factors are correlated to a specific pricing method. The research showed that cost-plus pricing is the most widely used pricing method irrespective of the type of service. It is suggested that this is due to the simplicity of the pricing method. Second most common, apart from the IT industry, is to price according to the market's average prices. According to Avlonitis and Indounas (2005, 2006), the exception of the IT industry can be explained by the usually high degree of customization of the services, which makes it more difficult to compare with competitors. Notably, only limited attention was given to pricing methods that take the customer's perspective into consideration. It is suggested that this might be due to difficulties in applying a value-based pricing method that captures the customer perceived value<sup>123</sup>.

#### **4.4.3 Pricing is situation specific**

Another interesting result that emerged is that different service sectors do not place the same emphasis on the different pricing methods pursued. Nor do they assign the same importance to service-, organizational- and environmental characteristics. These findings highlight the complexity of the pricing decision and suggest that there is no "one-size-fits-all" method that can be applied to all service contexts<sup>124</sup>. This is further supported by Lovelock and Wirtz (2001), who argue that different categories of services have different characteristics that make their pricing process unique. Altogether, the complexity of the pricing decision calls for the need to apply more than one pricing method. For example, method A could be applied under normal circumstances, whereas method B could be applied in more special situations.

Doctors et al. (2004) also address the complexity of service pricing, and they suggest modular pricing as a solution to the problem. The first step is to create a price schedule that comprehends all services that are offered to customers. According to the authors, few companies have such a complete list, and hence companies perform tasks without charging. Moreover, Doctors et al. argue that since there will not be a record of the services that are given away for free, it will hamper the companies' ability to think through new pricing strategies.

Once the list of services is completed, groups of services can be bundled together and customer can then mix and match the modules according to their needs. Companies will thus be able to offer a bigger variety of service combinations, where ideally, prices are reflected both in terms of the customers' needs as well as by the company's cost structure. Bundling of services will also make individual prices more difficult to compare with competitors. The airline industry is an example of an industry that has learnt how to charge for a variety of potential demands. Apart from passengers, they charge for excess luggage, animals, alcohol beverages etc<sup>125</sup>.

---

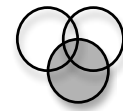
<sup>122</sup> Roth et al. (2006)

<sup>123</sup> Avlonitis & Indounas (2005 B)

<sup>124</sup> Avlonitis & Indounas (2006)

<sup>125</sup> Doctors et al. (2004)

## 4.5 Third-party logistics versus fourth-party logistics



The market that provides logistics services has expanded rapidly in the last decades. The rise can be ascribed a number of factors. On the supply side, the emergence of a few categories of companies in the market has spurred the growth. Firstly, in the 1980s, many transportation and warehousing firms developed into more advanced logistics providers. Then, in the 1990s, companies that provided financial services, IT or management consulting, started to tailor their services to the logistics services market<sup>126</sup>.

The entrance of the aforementioned categories of companies, and the need for their services in the market, can be understood by examining the demand side. Traditionally, the primary driving force of outsourcing has simply been the reduction of costs. However, in the last couple of years the relationship has changed and today it might include more strategic aspects, such as increasing the market coverage or improving the service level. Thus, the relationship between the customer and the logistics service provider has become more long-term in nature. The change is largely due to the globalization and the fact that the complexity of the supply chain has increased considerably. The need for an integrator that can manage the entire supply-chain and all the resources effectively has hence increased.<sup>127</sup>

### 4.5.2 Defining third-party logistics

There are a variety of definitions of Third-party Logistics (3PL), all of which vary in scope. Some of them are broader in nature and encompass both traditional transportation- and warehousing services as well as more complex services. However, there are also more narrow views of 3PL, which only include the more advanced and specialized logistics services and only on the basis of a long-term relationship<sup>128</sup>. Definitions also seem to vary between continents, where the U.S. and some parts of Europe employ a multitude of definitions of 3PL, whereas the view in the Nordic countries is somewhat more homogenous and usually only comprehends the more advanced logistics services. Nevertheless, in order to bring clarity in the terminology a EU-project "Protrans" concurred on a European definition of 3PL in 2001. This definition was largely influence by the Nordic view<sup>129</sup>:

*"Third-party logistics (3PL) are activities carried out by an external company on behalf of a shipper and consisting of at least the provision of management of multiple logistics services. These activities are offered in an integrated way, not on a stand-alone basis. The co-operation between the shipper and external company is an intended continuous relationship."*

### 4.5.3 Defining fourth-party logistics

In the light of the increased importance of strategic cooperation between the customer and the LSP, a new business model has emerged. In an attempt to distinguish that model from traditional 3PL, the new term Fourth-party Logistics (4PL) was coined by Accenture in 1996<sup>130</sup>:

---

<sup>126</sup> Selviaridis and Spring (2007)

<sup>127</sup> Skjøtt-Larsen et al. (2003)

<sup>128</sup> Selviaridis and Spring (2007)

<sup>129</sup> Skjøtt-Larsen et al. (2003)

<sup>130</sup> Walton (2010)

*“A 4PL is an integrator that assembles the resources, capabilities, and technology of its own organisation and other organisations to design, build and run comprehensive supply chain solutions.”*

The key feature of a 4PL provider is that it presents a single point of accountability to customers and thus accounts for the entire supply chain on both the demand and supply side<sup>131</sup>. Moreover, a 4PL is asset light and typically only owns IT systems and intellectual capital. This position enables the 4PL to stay neutral regarding capacity allocation and utilization when managing carriers, forwarders and warehouses<sup>132</sup>. Being independent, singularly accountable and non-asset based, the 4PL can thus bring together the needs of the customer with the competence of other 3PL- and technology providers. The value that the 4PL is adding is thereby the ability to take the customer’s perspective, and select and co-ordinate the resources in the best possible way at any given time<sup>133</sup>.

#### **4.5.4 Definitions of 3PL and 4PL in this thesis**

However, the terminology regarding 3PL and 4PL seem to be somewhat ambiguous. In an annual survey conducted by Langley et al. in 2005, respondents were asked if they understood the difference between 3PL and 4PL providers, and 78% responded “yes” or “somewhat”. However, when they were asked if the term 4PL was “confusing” or “ambiguous”, 76% responded “yes” or “somewhat”<sup>134</sup>. This thesis will distinguish the concept of 3PL from that of 4PL by using the following definition (as defined by SDS):

**3PL** An operator holding his own assets, like trucks, terminals, warehouses and who may have a terminal of his own.

**4PL** An operator who does not have his own fixed assets but provides services by purchasing and combining services from several 3PLs into one single solution for the customer.

As already mentioned in previous sections, there exist a broad range of definitions both for 3PL and 4PL. When studying the European definition of 3PL (section 4.1.2), for example, this is somewhat similar to the service offered by SDS. However, this definition does not address the issue regarding the ownership of resources. With respect to the definitions used by SDS, the major difference between the two concepts is that, unlike the 3PL provider, the 4PL provider is non-asset based. The objectives of a 3PL provider are thus, according to this definition, somewhat contradictive to those of a 4PL provider. Also Win (2008) argues that, as an asset-based organization, the 3PL provider should look to maximize the return on its own assets. Hence, the 3PL provider is not able to provide the same level of independence that a non-asset based 4PL could do<sup>135</sup>. Moreover, according to Rushton and Walker (2007), a 4PL provider distinguishes from a 3PL provider by operating vertically across the supply chain and, thus, addresses issues of both tactical and strategic concern.

---

<sup>131</sup> Win (2008)

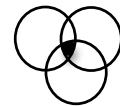
<sup>132</sup> Rushton & Walker (2007)

<sup>133</sup> Win (2008)

<sup>134</sup> Ibid.

<sup>135</sup> Ibid.

## 4.6 Pricing of logistics services



As the logistics services that are outsourced by companies are becoming increasingly extensive and complex in character, the need for contractual arrangements that govern the relationship between the customer and the logistics service provider has grown significantly<sup>136</sup>. A central element when designing the contract is the choice of pricing method. A pricing method that fits the purpose of the contract well could result in further prospering of the relationship. On the contrary, an inappropriate pricing method could impede the same<sup>137</sup>.

### 4.6.1 Contracts and relational governance

Although many researchers emphasize the importance of contractual arrangements in logistics outsourcing, empirical investigation has shown that logistics service providers often lack the knowledge of how to design purposeful contracts and how to choose suitable pricing methods. Hence, the contracts often create misleading incentives<sup>138</sup>. Nevertheless, to decide on an appropriate pricing method is imperative since the method chosen will govern the behavior of both customer and service provider<sup>139</sup>. Thus, depending on the contract design, different incentives can be created by rewarding partners for acting in a certain way<sup>140</sup>. To include bonuses and penalties in the contract, for instance, often encourages the service provider to adapt a service level where own profits are maximized, i.e. where bonuses are issued<sup>141</sup>. Similarly, risk- and reward-sharing is an effective method in aligning customer and provider incentives<sup>142</sup>.

According to Lambert (1999), risk- and reward-sharing agreements are important in building strong logistics relationships. However, as the interaction between the logistics service provider and the customer becomes tighter, the relationship itself often becomes the “contract”<sup>143</sup>. For instance, Dyer and Singh (1998) suggest that informal agreements that rely on mutual trust often replace the written contract document. Macaulay (1963) even suggests that contracts that are too detailed can impede the relationship<sup>144</sup>. In this view, relational governance and contracts are thus seen as substitutes for each other<sup>145</sup>. Another perspective is presented by Poppo and Zenger (2002). They propose that contracts in fact complement relational governance and argue that well-specified contracts encourage cooperation and trust by narrowing the severity of risk in the exchange between the customer and provider. This view is further substantiated by Fearon et. al (1992), who argues that long-term relationships create mutual trust, which

---

<sup>136</sup> Lukassen and Wallenburg (2010)

<sup>137</sup> Ibid

<sup>138</sup> Haldórsson and Skjoett-Larsen (2006)

<sup>139</sup> Lukassen and Wallenburg (2010)

<sup>140</sup> Norrman (2008)

<sup>141</sup> Lukassen and Wallenburg (2010)

<sup>142</sup> Chopra and Meindl (2004), p.401

<sup>143</sup> Lambert et. al (1999)

<sup>144</sup> Norrman (2008)

<sup>145</sup> Ibid.

in turn results in more cooperative and joint effort. Long-term contracts are thus often just as beneficial for the service provider as they are for the customer<sup>146</sup>.

The transfer of risk is inherent in logistics services and some authors even suggest that risk should be the main determinant to consider when deciding on the pricing method. Bowersox (1990), for example, suggests that the pricing decision should be based on the relative risk aversion of the customer and service provider. Kim et. al (2007) also focus on risk and recommend the compensation to be more outcome-based the more relatively risk averse the customer is, and more cost-based the less risk averse the customer is compared to the service provider. A reason for this approach is that a cost-based contract transfers the risk from the provider to the customer, while the risk in outcome-based contracts instead is born by the service provider<sup>147</sup>.

#### **4.6.2 Pricing methods used for logistics services**

Studying logistics services on a global scale, a decrease in the use of risk- and reward-sharing agreements can be found. Instead, cost-based contracts and transaction-based fees are becoming increasingly utilized. Moreover, outcome-based contracts that include bonuses and penalties seem to have increased over the years<sup>148</sup>.

In the literature covering logistics service pricing there is also a predominance of the cost-based pricing methods, although there are authors that advocate other pricing methods such as fixed price, outcome-based and gain-sharing. However, there seems to be no consensus in the research when a certain type of pricing method should be used<sup>149</sup>. Logan (2000), for instance, suggests that the service provider always should aim for long-term outcome-based agreements, while the customer usually benefits from open book cost-plus contracts. This view is partly supported by Maltz and Ellram (1997) who only suggest outcome-based pricing methods. Richardson (1993) discusses the pricing issue from a technical uncertainty perspective, and argues that when technical uncertainty is high, cost-based contracts are suitable. According to van Hoek (2000) on the other hand, who discusses pricing from a service complexity perspective, which is closely related to that of technical uncertainty, the most appropriate pricing method in such contexts are a fixed price.

In order to create the optimal contract design, some authors argue for a combination of pricing methods. Studying the potential to improve the service quality in 3PL relations from a customer perspective, Liu et. al (2007) found that the customer should arrange a combination of gain-sharing, penalty and fixed price. Schlissel and Chasin (1991), on the other hand, propose a combination of time-based rates to cover for activities that are not directly linked to the specific service, and a cost-based rate for costs that are.

#### **4.6.3 Factors influencing the choice of pricing method and contract design**

Both external and internal factors that are independent from the specific relationship have been found to influence the pricing decision process. Internal factors are those composed of the business model and attitudes within the organization, while external factors are found in the economic, technological and regulatory environment <sup>150</sup>. For example, competition amongst logistics service providers has been found to reduce the extent to which cost-based pricing is used and increase the use of market-based pricing.

---

<sup>146</sup> Fearon et. al (1992), p. 211

<sup>147</sup> Lukassen and Wallenburg

<sup>148</sup> Lukassen and Wallenburg

<sup>149</sup> Ibid.

<sup>150</sup> Ibid.

A competitive environment also favors more long-term objectives as opposed to short-term profit<sup>151, 152</sup>.

Li and Kouvelis (1999) have found that external uncertainties of supply contracts, such as changes in exchange rates, fluctuating prices of components and difficult-to-forecast conditions, may result in a contract design with risk-sharing features.

Also, the nature of the service will influence the contract design. According to Fernie (1999), empirical studies have shown that more complex logistics services are compensated based on costs while simpler services are based on the outcome. Also the scope of the service will result in more or less complex, detail and long-termed contracts<sup>153</sup>.

#### **4.6.4 Pricing methods suitable for the 4PL industry**

We have met with Erik Fox, who has a background as manager at Schneider FTL and who currently is the director of the supply chain consulting firm 4Movement, to discuss pricing from a 4PL perspective. Erik Fox primarily described two different methods that are suitable to use for the 4PL industry; the fee-based pricing method and the tariff-based pricing method.

##### **4.6.4.1 Fee-based pricing method**

The fee-based pricing method is comprised of three components:

- *a fixed fee*, which is related to the fixed costs associated with the customer.
- *a transaction fee*, which is related to the variable cost of the customer, such as volume.
- *gain-sharing*, which is used when improvements are made on the supply chain. Initially, the current cost situation is agreed upon. Then, cost improvements are proposed, and if the customer agrees on implementing those, a compensation plan is negotiated. The plan could for example give the service provider 25% of the cost-savings the first year and 10% of the cost-savings the second year etc.

The most salient advantage with the fee-based method is that it aligns the service provider with the customer, as it incorporates incentives for continuous improvements and for reduction of costs. An advantage from the 4PL provider's perspective is that the risk is born by the customer, as the provider is reimbursed for all expenses that are associated with the project. The drawback, however, is that the pricing method is transparent, which makes it more difficult to earn money. Another disadvantage with a transparent pricing method is that customers have considerable insight into every cost item, which might initiate price discussions. Typically, the service provider wants to spread out the cost-savings over a couple of years. The drawback, however, is that the customer forgets the initial savings and starts to question the costs after the cost-savings have been carried out.

According to Fox, this pricing method is suitable for new customers, or when the risk is low or the share of the customer's business that is managed by the 4PL provider is small.

---

<sup>151</sup> Avlonitis and Indounas (2005 A)

<sup>152</sup> Avlonitis and Indounas (2005 B)

<sup>153</sup> Ibid.

#### **4.6.4.2 Tariff-based pricing method**

The tariff-based pricing method implies that the customer is charged with a tariff. Commonly, a best/worst case scenario is estimated, whereby a suitable mark-up for the risk is added to the costs. The method is less transparent than the fee-based pricing method, which gives the 4PL provider flexibility to manage the supply chain in the best possible way. However, this also means that the risk is born entirely by the 4PL provider.

One of the advantages for a 4PL provider to use tariff-based pricing is that the choice of carrier not has to be justified. This might in turn generate a greater yield, as the risk is managed more effectively. A disadvantage, however, is that a tariff is easy to compare and customers might opt for the cheapest service provider without being able to compare the providers on equal terms. The price comparison might also result in that the customer takes the 4PL for a carrier and does not take into account the additional value that the 4PL provider creates. Besides, the tariff-based pricing method does not align the customer and the 4PL as well as the fee-based method does.

Altogether, Fox suggests that the tariff-based pricing method can be used when the 4PL-provider has a strong market-position and a broad access to the market.



## 5. The studied system at SDS

---

*To be able to recommend SDS how to price their services, the current pricing methods at SDS must first be understood. Therefore, this chapter will present the studied system at SDS. The first part of the chapter will discuss pricing methods and external factors that influence the choice of pricing method. The second part will discuss characteristics of SDS's services.*

---

SDS is organized with a dedicated department for every customer, managing everything from operational activities in terms of transports to more strategic activities, such as the design of a new supply chain. Interviews have been conducted with the majority of the General Managers at SDS, who are each responsible for a specific customer account<sup>154</sup>. However, two of the divisions were excluded from this study, since one of the General Managers did not have time to meet with us and the other department has a significantly different setup than the rest.

To get a deeper understanding of the pricing methods at SDS, interviews have been conducted not only with General Managers but also with the Strategy Manager and IT-Manager as well as with people responsible for Transport Procurement and Sales & Implementation. Hence, the aim of this chapter is to answer problem statement B:

- B. What pricing methods are currently used at SDS?
  - a. What are the disadvantages and advantages with the different pricing methods?
  - b. What effects do the pricing methods create in terms of:
    - i. Who bears the risk?
    - ii. What incentives are created from using these pricing methods?

The findings from the interviews are summarized below.

### 5.1 Pricing method

All departments use cost-plus to price their services and the customers are charged per transaction, i.e. per transport. However, a management fee is added to the transportation cost when setting the price. This fee should cover costs for transportation management and control towers, IT-systems, supply chain design and optimization, etc. The management fee also includes a profit margin.

Basically, SDS has two main ways of charging their customers:

- The transportation costs and the management fee are packaged into an all-in price per transport.
- The transportation cost and the management fee are specified separately.

#### General opinions about pricing at SDS

Most interviewees agree upon that the cost-plus pricing method does not reflect the services offered by SDS particularly well. Instead, they believe that SDS ideally should charge for the value created from their services. According to the interviewees, SDS creates value by for instance offering *one* single contact, a dedicated division, high quality services, competitive prices (due to a large carrier base) and by making sure that

---

<sup>154</sup> New customer accounts that have been implemented after 2011-02-11 have not been studied.

their promises towards the customers are kept. However, they all point out that, within the 4PL industry, it is difficult to set a price in accordance with the generated value. Initially, the customers often do not understand what SDS as a 4PL provider offers in addition to a “regular” 3PL provider. One General Manager explains that: *“It is difficult to charge for the value created, since many customers compare SDS with the 3PL providers on the market”*. Besides, sometimes the potential customer has not specifically asked for a 4PL provider but simply needs an external provider to manage their transports. According to the General Managers, SDS hence competes not only with other 4PL providers but also with the 3PL providers on the market, and it becomes difficult to price differently than the perceived industry standard cost-plus method.

To use gain-sharing and performance-based pricing to price part of the offerings have been discussed by most of the General Managers and some of the interviewees point out the importance of finding a pricing method that better reflects the concept of SDS, i.e. that takes the entire solution that SDS offers into account. They believe that such a pricing method would create incentives for the customer to outsource a larger share of their own business to SDS. Then, it would also become easier to charge for the value created.

### **External factors**

Some external factors that are considered when setting the prices are:

- Fluctuating exchange rates
- Changes in fuel price
- Imbalance in transport routes within Europe
  - Hence, transport prices into a country can be extremely cheap while the transport prices out of the same country can be very expensive.
- The capacity of SDS
  - Is there enough capacity to handle the customer’s business?

For some customers, the external factors are incorporated in the price by adding them as risk factors. In those cases, SDS bears the risk of possible changes in the external factors. When the external factors are not incorporated, the customer will get charged for cost increased above a certain interval. Hence, the risk is shared between SDS and the customer.

The pricing of services also depends on whether it is SDS or the customer who is bound by the contracts towards the carriers. When the customer has signed the carrier contracts, the customer takes the risk if a carrier does not fulfill their part of the contract. Conversely, if the risk is born by SDS, this is accounted for by adding a premium to the price.

## **5.2. Service characteristics**

SDS’s customers purchase the complete 4PL offering, with the exception of one customer that only purchases a specific sub-service. Hence, the gathered information focusing on the service characteristics concerns the entire 4PL concept offered by SDS (table 5.1).

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult						X	
Degree of customization 1 = standardized, 7 = customized					X	X	
Degree of complexity 1 = very simple, 7 = very complex							X
The nature of the relationship with customer 1 = short-term, 7 = long-term							X
Scope of the relationship with customer 1 = not extensive, 7 = extensive				X			

Table 5.1. Findings service characteristics for SDS.

### 5.2.1 Ease of specifying the service

Before being able to specify the setup of the service for a specific customer, a thorough analysis of the customer's business and processes is required. Besides, many of the details fall into place in the early stages of the project process. Hence, it is very difficult to specify the services before having a dialogue with the customer.

### 5.2.2 Degree of the complexity of the service

As a 4PL provider, SDS manages the customers' entire transportation process, i.e. everything concerning shipping, IT, consolidation of information, process design etc. This means that the 4PL-service offered by SDS have a high degree of complexity.

Nevertheless, it should be noted that the sub-services included in the overall 4PL-offering all have different degrees of complexity. For instance, the freight-bill auditing sub-service is rather standardized, while the redesign of the current supply chain is very complex.

### 5.2.3 Degree of customization of the service

The services of SDS are packaged into a customized solution that reflects the need of a specific customer. Although the kind of services used for most of the customers are the same, no customers have the exact same setup. The services are therefore highly customized. According to an employee working with new sales, SDS even avoids standardization, which means that SDS does not allow itself to benefit from previous projects. The employee suggests, however, that some degree of standardization could be useful.

### 5.2.4 The nature of the relationship with the customers

Since the services offered by SDS are highly complex and customized, SDS has chosen to only work with customers that strive for a long-term relationship. Ideally, SDS and the customer will develop a long-term relationship on a more strategic level.

### 5.2.5 The scope of the relationship with the customers

SDS's customers are mainly large organizations and SDS is not always able to manage the customer's entire flow of transports. For instance, SDS mainly uses road-transports and if the customer needs to ship by ocean or air, another provider is usually used. Besides, sometimes the customer deliberately places their business with different providers where each provider is given a certain geographical area to manage. Only one of SDS customers has placed their entire business with SDS. However, it has taken many years to build up this kind of trust.



## 6. Case study findings

---

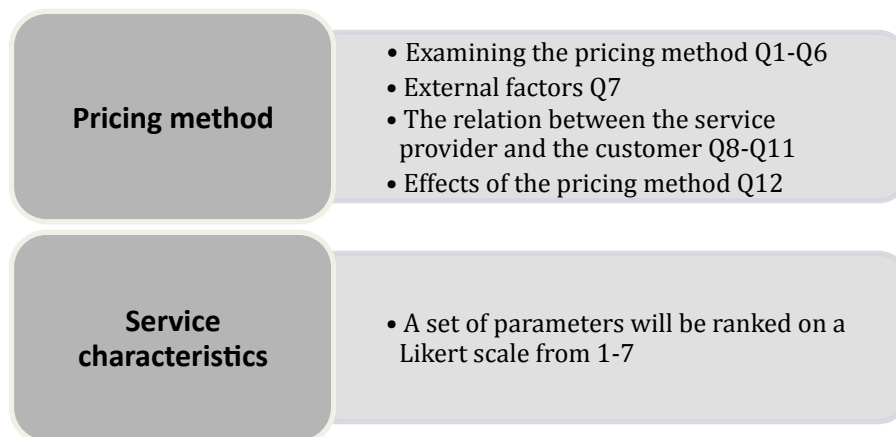
*This chapter will present the data collected from the case studies. First, an overview of how the information will be presented is given. Then, each case study will be elaborated on individually. In total, 6 case studies have been conducted.*

---

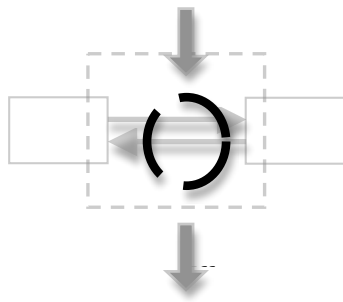
The purpose of the case study is to gather information about the different pricing methods that functional substitutes use. This section will hence answer parts of problem statement C:

- C. What pricing methods do functional substitutes use?
  - a. What are the disadvantages and advantages with their different pricing methods?
  - b. What effects do the pricing methods create in terms of:
    - i. Who bears the risk?
    - ii. What incentives are created from using these pricing methods?
  - c. What are the most salient convergent patterns between the industries?

The disposition of the data collected for each case study will follow the outline in figure 6.1 below. The questions that were asked during the interviews are linked to the system described in the methodology chapter. Figure 6.2 shows more in detail how a set of questions corresponds to a certain part of the system. Finally, the result of a number of service characteristics that each case study representative was asked to rank, will be presented (the service characteristics are described in more detail in chapter 3.4).

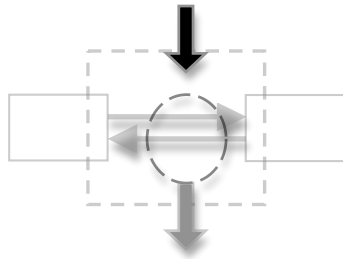


*Figure 6.1. The disposition of the data collected from the case studies.*



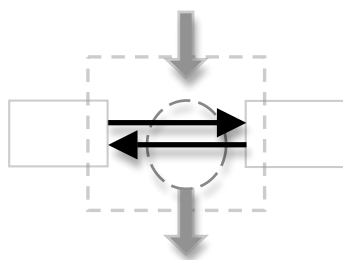
**Examining the pricing method/s**

- Q1: How does the company price its services?
- Q2: Do you use different pricing methods for different offerings?
- Q3: Why did you choose this particular pricing method?
- Q4: How well do you think this pricing method corresponds with the services offered?
- Q5: Do you think your company's way of pricing is industry standard?
- Q6: Have you discussed the possibility to apply other pricing



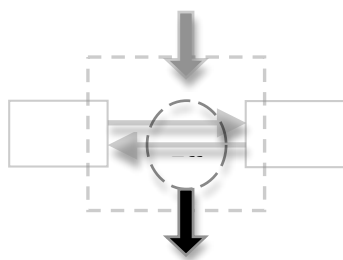
**External factors**

- Q7: What factors do you take into consideration when you use the particular pricing method?



**The relation between the service provider and the customer**

- Q8: Have the customers asked for an alternative pricing method?
- Q9: Do you use different pricing methods for different customers?
- Q10: Do you use different pricing methods for different customers depending on the level of strategic importance of a specific customer?
- Q11: How do you charge for customization?



**Effects of the pricing method/s**

- Q12: What are the advantages/disadvantages with the pricing method/s that is/are being used?

*Figure 6.2 shows more in detail how a set of questions corresponds to a certain part of the system.*

## 6.1 Case study findings - IT-1

IT-1 is a medium-sized company, with approximately 250 customers, that provides different IT-solutions for managing the supply chain. The company offers, for example, Transportation Management Systems, IT-solutions for control towers, order tracking systems etc. Their IT-solutions are comprised of a set of standardized modules that can be combined in different ways in order to match the need of the customer. The majority of IT-1's customers use the cloud-based version of the service (Software-as-a-service (SaaS)), while some of the clients choose to implement the software on their in-house computers. Most common, however, is a hybrid between the abovementioned alternatives, i.e. some modules are implemented in-house, whereas others are purchased as a SaaS.

### 6.1.1 Pricing method

#### 6.1.1.1 Examining the pricing method

When acquiring a new customer, IT-1 will conduct a pre-study to align the expectations of the customer with what is actually achievable. The pre-study is charged either as a running cost per hour or as a fixed-price.

IT-1's pricing methods are derived from value-based pricing. Essentially, the company uses two different pricing methods, the license method and the transaction method. However, a third one, the "pure" transaction method, also exists, which is a slight modification of the transaction method. Taking the number of customers as the point of reference, the proportion between the license method and the transaction method is 50/50. The pure transaction method is only used for certain key customers, whereby the share of customers is close to zero. From the number of transaction executed per month perspective, the share is, however, somewhat larger for the pure transaction method. Looking at the deals closed in the last five years, the proportion between the license method and the transaction method is about 20/80. IT-1 prefers the transaction-based pricing method and they try to apply it as often as possible. No official pricelist exists for its services. Instead, there is an unofficial pricelist that guides the price decision-making. Altogether, price levels are based upon industry experience and a feeling for what the "right" price is.

- *The license method.* This method is comprised of two different components, a license part and an annual Support & Maintenance (S&M) part. Each module requires a license, which is charged as a one-off payment in the beginning. The amount may vary for some modules depending on the type of customer. The S&M cost amounts to about 17-22% of the cost for the license and is paid annually. The license pricing method was previously extensively used by IT-1, however, the company is trying to move away from this way of charging for its services. This is primarily due to the uneven cash flow that this method triggers. IT-1 will get a large lump sum initially, but only a smaller amount on a continuous basis. The fact that the S&M cost is calculated based upon the license cost makes older business agreement less profitable as prices constantly increase.



Figure 6.3. The licence method

- *The “transaction” method.* This method is comprised of three parts: a start-up cost, a monthly support and maintenance cost and a cost that is proportional to the number of transactions that the customer executes per month. The start-up cost is charged per module and is thereby similar to the license cost in the license method: it is a one-off cost and it is paid initially. The difference, however, is that the start-up cost is a lot smaller than the cost for a license. The second part, the monthly cost, covers the cost for support and maintenance. The fundamental difference with the transaction method in comparison to the license method is that the third component is comprised of a factor, the price per transaction, which is multiplied by the number of transactions that each customer executes per month. In this way, the price is linked to how much the customer uses the service, which in turn is related to the customer’s revenue streams.

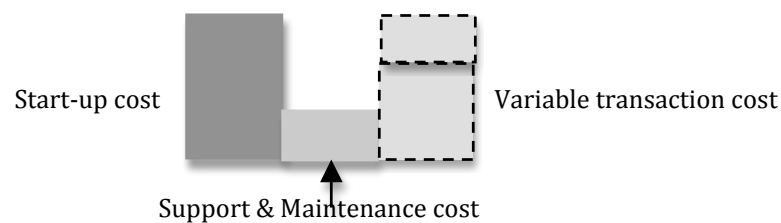


Figure 6.4. The transaction method.

- *“Pure transaction” method.* In case the customers account for a large volume of transactions, the monthly cost and the start-up cost might be omitted. Consequently, the customers only pay for the variable cost i.e. how many transactions that are executed per month.

The cost for support is usually included in the monthly support and maintenance fee. However, if the customer wants to have access to support for an extended period of time a day, this is charged as a fixed price per month.

The price level is always a question of negotiation, and especially key customers might obtain a reduced price. In this case, IT-1 uses quantity discounts, which give the customer a lower price per transaction if they exceed a certain volume. The volume is estimated beforehand, whereby the lower price is given from the first transaction. Prices are negotiated every 2-3 years, whereby the prices usually are increased by consumer price index + 1%.

Gain-sharing is sometimes used when goods can be consolidated. The savings that are made are then shared equally. IT-1 has also discussed how to incorporate even more value in their existing pricing methods. Nevertheless, it remains an issue that value is difficult to estimate.

The deputy CEO at IT-1 believes that especially the transaction method corresponds very well to the service that they are offering. The idea to charge by transaction is taken from the telecom industry, where similarly the price paid is linked to how much the service is used. Altogether, the deputy CEO believes that the industry in general price according to the license method but that they are increasingly starting to move towards the transaction method. However, to be able to extensively use the transaction method a company requires considerable capital and the possibility to exploit economies of scale.

#### 6.1.1.2 External factors

IT-1 takes several factors into account when setting the price and determining what pricing method that is suitable. Essential factors are for example the scope of the

business, i.e. how much the customer purchases and what potential the business has. Other factors that are taken into consideration are the solvency of the customer and the amount of workload that the customer requires. Finally, IT-1 will try to calculate the value created for each customer, which is partly carried out by evaluating previous history with the customer.

#### **6.1.1.3 The relation between the service provider and the customer**

If the customer wants a solution that is not yet developed, IT-1 will evaluate how useful that particular module would be to the rest of their customer base. In case it is a module that is either crucial to a key customer or useful for the rest of IT-1's customer base, IT-1 will develop such an application. The module is charged as a start-up or license cost, hence, IT-1 will initially take on the risk to cover the cost for the development.

In case the customer wants a solution that is highly customized, the configuration will be charged by the hour. However, in general, IT-1 tries to charge as few hours as possible by the hour, as this type of income does not generate a future cash flow.

#### **6.1.1.4 Effects of the pricing method**

*The license method.* There are several advantages and disadvantages with the two methods. The main advantage with the license method is that the customers recognize this pricing method since it is the traditional way of pricing IT-services. Nevertheless, the disadvantages for both the service provider and the customers are several. From the customers' point of view, the cost for the Support & Maintenance might appear large, as S&M is only charged once a year. A drawback from a service provider's perspective is that if the contract was negotiated a couple of years ago, the cost for the modules might be considerably smaller than it would be today since the annual cost is a percentage of the licence cost. The proportion that IT-1 receives a year is hence smaller than it would have been if the deal had been closed today. Another disadvantage with charging a yearly cost is that a larger amount usually has to be approved further up in the organization. In other words, if the cost is spread out over the year the decision of purchasing a service can be decentralized.

*The transaction method.* The advantage with the transaction method is that it reflects the revenue streams of the customer. When sales are up for the customer this is closely followed by an increased cost for IT-1. Similarly, the costs are down if sales are down. This set-up reduces the risk for the customers as they only pay for what they use. As discussed above, a price that is evenly spread out over the year enables personnel further down in the organization to take the decision of purchasing the service. The fact that the revenues are spread out over the year also makes IT-1's financial situation safer as the cash flow is more even. This in turn makes it easier to cover fixed costs. In addition, the transaction method has been found to be more profitable than the license method. The disadvantage with the transaction method, however, is that the risk is born by IT-1. This is due to the fact that the cost for the start-up for a new customer is not covered immediately, but rather regained over a longer period of time. In case the customer decides to cancel the agreement after a short period of time, IT-1 will not have covered the costs for this specific customer. However, due to economies of scale and a stable financial situation, the company can afford to take on such risks.

### 6.1.2 Service characteristics

Table 6.1 below presents the ranking of the service characteristics for IT-1.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult			X				
Degree of customization 1 = standardized, 7 = customized						X	
Degree of complexity 1 = very simple, 7 = very complex							X
The nature of the relationship with customer 1 = short-term, 7 = long-term							X
Scope of the relationship with customer 1 = not extensive, 7 = extensive					X		

Table 6.1. Findings service characteristics for IT-1.

#### 6.1.2.1 Ease of specifying service

Typically, the customers contact IT-1 when they want to purchase the service. Since the customers already have identified the need, it is fairly easy to specify the service.

#### 6.1.2.2 Degree of customization of the service

IT-1's services are configured according to the customers' needs. Therefore, the degree of customization is high.

#### 6.1.2.3 Degree of the complexity of the service

IT-1's services are comprised of a number of different modules that are complex in character.

#### 6.1.2.4 The nature of the relationship with the customers

IT-1's intention is to always have long-term relationships with their customers. Besides, the switching costs are often relatively large, which gives further incentives for a long-term relationship.

### 6.1.3 Summary of IT-1

IT-1 uses two different pricing methods. They are referred to as the license method and the transaction method. Both of them are presented in table 6.2 and 6.3 below. The transaction-based method is used for 50% of the customers, whereas the license method is used for the other half. Looking at the new customers that have been acquired in the last five years, 70% use the transaction-based method, and only 30% use the license method.

<b>Value-based The Transaction method</b>	
<b>Characteristics</b>	<b>Is comprised of three parts:</b> <ul style="list-style-type: none"> <li>• A start-up cost, charged initially</li> <li>• A monthly cost that covers support and maintenance</li> <li>• A transaction-based cost, multiplied by the number of transactions executed per month.</li> </ul>
<b>Advantages</b>	<b>From the customers' perspective:</b> <ul style="list-style-type: none"> <li>• A reduced risk for the customers, as the cost reflects their revenue streams</li> </ul> <b>From the service provider's perspective:</b> <ul style="list-style-type: none"> <li>• The decision to purchase the service can be made further down in the organization</li> <li>• Safer financial situation, cash flow more even, easier to cover fixed costs</li> <li>• More profitable than the license method</li> </ul>
<b>Disadvantages</b>	<b>From the service provider's perspective:</b> <ul style="list-style-type: none"> <li>• They take on a risk as the initial investment for a new customer is regained over a period of time</li> </ul>
<b>Industry Standard</b>	The transaction method is becoming more widely used.

Table 6.2. Summary of IT-1's transaction method.

The transaction method can be formulated mathematically as:

$$P(q) = S + \sum_{t=\text{months}} SM + p_{\text{value}} * q$$

where: S = the start-up cost that the customer pays in the beginning.

SM = the Support & Maintenance cost

$p_{\text{value}}$  = the price/transaction (value-based)

q = the number of transactions that the customer executes per month.

<b>Value-based The License method</b>	
<b>General</b>	Is comprised of two parts: <ul style="list-style-type: none"> <li>• A license part, charged as a one-off payment initially</li> <li>• A Support &amp; Maintenance part (S&amp;M), amounts to 17-22% of the license cost. Annual payment.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Customers recognize the pricing method</li> </ul>
<b>Disadvantages</b>	<b>From the customers' perspective:</b> <ul style="list-style-type: none"> <li>• The customer takes on a risk as a fixed price has to be paid irrespective of how much the service is used</li> <li>• The cost is invoiced as a lump sum once a year, might appear expensive</li> </ul> <b>From the service provider's perspective:</b> <ul style="list-style-type: none"> <li>• Old agreements are less profitable as the S&amp;M cost is charged as a percentage of the license cost.</li> <li>• The invoice has to be approved further up in the organization in comparison to if the cost would have been spread out over a year and invoiced on a monthly basis.</li> </ul>
<b>Industry Standard</b>	It is the traditional way of pricing, however, companies are increasingly switching to the transaction method.

Table 6.3. Summary of IT-1's license method.

The license method can be formulated mathematically as:

$$P = LC_{value} + \sum_{t=years} \alpha * LC_{value}$$

where:  $LC_{value}$  = the license cost that the customer pays initially (value-based)  
 $\alpha$  = the share of the license cost that will be paid annually, usually between 0.17-0.22, i.e. 17%-22% of the license cost.

IT-1 takes the following factors into considering when they determine what pricing method to use and how to set the price (table 6.4).

<b>External factors that affect the choice of pricing method</b>	<ul style="list-style-type: none"> <li>• The scope of the business, i.e. the volume of transactions and the potential of the customer</li> <li>• The workload each customer requires</li> <li>• The value for the customer</li> <li>• Previous history with the customer</li> <li>• The customer's solvency</li> </ul>
--	--

Table 6.4. Findings External factors for IT-1.

## 6.2 Case study findings - IT-2

IT-2 is small company, with about 45 000-50 000 customers, that provides Transport Management Systems (TMS). The TMS supports the largest carriers in the market. 95% of the customers use the online-version of IT-2, while only 5% have the software installed on their in-house computers. There are two different predetermined offerings, one with the most basic applications and another one with more advanced applications. The second offering includes all applications that are part of the first one.

### 6.2.1 Pricing method

#### 6.2.1.1 Examining the pricing method

IT-2 was spun off from a larger company through a management buy-out about ten years ago. Hence, IT-2 did not have to do any large initial system development efforts and they could grow from the existing customer-base from start. Costs are thus not in focus, and since the solvency of the company is high, the company has no intention of trying to optimize the cash flow. Instead, IT-2 uses a market-based pricing method where prices are entirely based upon what the market is willing to pay. The two pricing methods that are used are referred to as the transaction method and the license method. Before the recent IT-evolution, the majority of IT-2's customers implemented software on their computers and they were hence charged according to the license method. Nevertheless, since IT-2's service is increasingly used as a Software-as-a-Service, the most commonly used pricing method today, is the transaction method. About 5% of IT-2's customers use the license method, the rest are paying according to the transaction method.

- *The transaction method.* The transaction method is only comprised of one part, which is price per transaction that is multiplied by the number of transactions that the customer executes per month. There are two types of service offerings, i.e. the basic or the more advanced, where the latter is more expensive than the basic offering. There is a minimum charge of 100 transactions per month. IT-2 applies a bracket price list for key or high volume customers, whereby the customers will get a reduced price per transaction above a certain quantity. For example, the first 1000 transactions are priced at 2SEK/transaction, whereas transactions above 1000 are priced at 1.50SEK. To

initially give a lower price for all transactions would require a forecast of the customers' volume of transactions, which in turn would imply a risk since future scenarios always are uncertain. A lower initial price could hence imply a loss for IT-2. By using the current model, the risk of uncertain forecasts is eliminated.

- *The license method.* When the license method is used, software is installed on the customer's computers. The pricing method is comprised of three components: a license cost that is paid as a one-off payment in the beginning, a yearly support and maintenance cost, a factor (= price/transaction) that is proportional to the number of transactions that the customer executes per month. This price/transaction is, however, smaller than in the *transaction method*.

The reason why IT-2 has chosen a market-based pricing method is partly because this pricing method is easy to explain to customers. Besides, it sets a price that is competitive. IT-2 has not considered alternative pricing methods and the vice president at IT-2 believes that the price method that they are mainly using, the transaction method, corresponds well to their service. He also believes that a market-based pricing method is industry standard for companies that offer similar standardized modules.

#### **6.2.1.2 External factors**

IT-2 takes a few factors into consideration when determining the pricing strategy. Firstly, the type of service that the customer needs, i.e. whether the IT-solution needs to be implemented in-house or not, determines what pricing method that is suitable, i.e. the license method or the transaction method. The price level will be set depending on the price level of the competition, which in turn, is reflected by what the market is willing to pay.

#### **6.2.1.3 The relation between the service provider and the customer**

Sometimes, customers with a large amount of transactions ask for a maximum price per month. In order to meet that demand, IT-2 has on some occasions made an exception and closed a deal where a price ceiling has been established.

If customers ask for an application feature or carrier support that does not yet exist, IT-2 will try to develop such an application if it is useful for the rest of IT-2's customer base. Once developed, it will be included in either the basic or the advanced service offering. The customer that asked for the application will hence not pay for any R&D costs.

#### **6.2.1.4 Effects of the pricing method**

The two pricing methods that are used by IT-2 are the license method and the transaction method. However, the license method is not very extensively used. When applying the license method the customers are invoiced once a year, which makes every invoice account for a larger amount than if the same customer had been invoiced once a month. The service might hence seem more expensive. Consequently, IT-2 is trying to move away from the license pricing method and apply the transaction method when possible. Besides, the profits with the transaction method are about twice as high as with the license method. Another advantage with the transaction method is that it does not require an investment decision by the customer; the price is instead related to how much the service is used.

### 6.2.2 Service characteristics

Table 6.5 below presents the ranking of the service characteristics for IT-2.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult		X					
Degree of customization 1 = standardized, 7 = customized		X					
Degree of complexity 1 = very simple, 7 = very complex				X			
The nature of the relationship with customer 1 = short-term, 7 = long-term						X	
Scope of the relationship with customer 1 = not extensive, 7 = extensive						X	

Table 6.5. Findings service characteristics for IT-2.

#### 6.2.2.1 Ease of specifying service

IT-2 offers two standardized sets of IT-solutions within Transportation Management. The only choice that has to be made before a customer can start to utilize the service is, which carriers that the system is going to support and what system features, i.e. the basic service or the more advanced, that they want to purchase. The service is hence very easy to specify.

#### 6.2.2.2 Degree of customization of the service

The service can only be purchased in two forms: the basic service offering or the advanced service offering. The service is hence highly standardized.

#### 6.2.2.3 Degree of the complexity of the service

The modules that IT-2 offers range from very easy to access and use in terms of functionality, to rather complex modules. As the system features are bundled into only two different offerings, the customer can choose to use more or less complex features within these offerings depending on their changing needs over time.

#### 6.2.2.4 The nature of the relationship with customers

IT-2's usually has a long-term relationships with their customers.

#### 6.2.2.5 The scope of the relationship with customers

Customers that opt for IT-2's service usually give IT-2 a large share of that particular business.

### 6.2.3 Summary of IT-2

IT-2 uses two different pricing methods. They are referred to as the license method and the transaction method. Both of them are presented in table 6.6 and 6.7 below. 95% of the customers use the transaction method while, only 5% is charged according to the licence method.

Market-based	IT-2's Transaction method
<b>General</b>	The most extensively used pricing method (99% of the customers). Is comprised of two components: <ul style="list-style-type: none"> <li>• The number of carriers that the customer wants support for, each carrier is charged as a one-off fixed price</li> <li>• The type of service offering, the basic or the advanced. Each service offering is charged by transaction, where the advanced service offering is twice as expensive as the basic service offering. A bracket price list is applied for key customers.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• More profitable than the license method</li> <li>• Customer pay for what they use</li> </ul>
<b>Disadvantages</b>	Not discussed.
<b>Industry Standard</b>	Among companies that offer similar standardized modules, this way of pricing is industry standard

Table 6.6. Summary of IT-2's transaction method.

The transaction method can be formulated mathematically as:

$$P(q) = \sum_{t=months} p_{market} * q$$

where:  $p_{market}$  = the price per transaction (market-based)

$q$  = the number of transactions that the customer executes per month

Market-based	IT-2's License method
<b>General</b>	Software has to be installed on the customers' computers. The pricing method is comprised of three parts: <ul style="list-style-type: none"> <li>• A license part, a one-off payment</li> <li>• A Support &amp; Maintenance part, paid yearly</li> <li>• A transaction-based cost, multiplied by the number of transactions that the customer executes/month. The price/transaction is smaller than in the transaction method.</li> </ul>
<b>Advantages</b>	Not found.
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• The invoice accounts for a larger amount when invoiced once a year. Might appear expensive to customers.</li> <li>• Less profitable than the transaction method</li> </ul>
<b>Industry Standard</b>	Is not believed to be industry standard.

Table 6.7. Summary of IT-2's license method.

The license method can be formulated mathematically as:

$$P(q) = LC + t = \sum_{t=months} \alpha * LC + p_{market} * q$$

where: LC = the license cost that the customer pays in the beginning.

$\alpha$  = the share of the license cost that will be paid as a montly fee for support and maintenance

$p_{market}$  = the price/transaction (market-based)

$q$  = the number of transactions that the customer executes per month.

IT-2 takes the following factors into considering when they determine what pricing method to use and how to set the price (table 6.8):

<b>External factors that affect the choice of pricing method</b>	<ul style="list-style-type: none"> <li>• What the market is willing to pay</li> <li>• The competition</li> </ul>
--	--

*Table 6.8. Findings external factors for IT-2.*

## 6.3 Case study findings - Economy Supplier

Economy Supplier is a medium-sized company with about 350-400 customers. The company is solely dedicated to administration of their customers' economy functions and is thus not involved in any cash flow management. Economy Supplier offers a range of different services, such as sales ledger, collection of debts, suppliers' ledger, salary management and accounting.

The main focus during the interview has been on the sales ledger function, therefore the rest of the functions will not be discussed. The sales ledger function performs credit controls, creates invoices, reminds clients of non-paid invoices, creates interest invoices and demands payments of debts.

### 6.3.1 Pricing method

Economy Supplier uses two different approaches to calculate the price for their services. Both approaches are, however, derived from a cost-plus pricing method. For low volume customers, a set price per transaction is used. This price is determined partly by considering internal costs and partly by considering what the market is willing to pay. For high-volume customers or non-standardized services, on the other hand, a unique price per transaction for every agreement is calculated. The starting-point for determining that price is to add 50% on direct costs. Nevertheless, that margin may vary depending on the volume and the type of customer. Economy Supplier has always used this pricing method and believes that the pricing method that is used corresponds well to the market segment that the company is catering for. Therefore, Economy Supplier has never considered any alternative methods. In general, the pricing within the industry is ad hoc.

#### 6.3.1.1 Examining the pricing method for the sales ledger function

The customers' invoices are transferred from the customer system to Economy Supplier's system through Electronic Data Interchange (EDI). Either the customers set up the EDI themselves, or they let Economy Supplier establish the connection. In the latter case the cost is charged as a fixed price per hour. If external consultants are used, no extra-mark up will be added and the cost will just be passed on to the customer. If it is a key customer, Economy Supplier might even fund the establishment of the EDI themselves. Once the information transfer is established, the customers will pay per transaction. There are relatively large direct costs associated with every transaction, such as bank fees, postage etc.

In general, the implementation includes EDI, choice of layout and a test run. The choice of layout refers to the design of the invoice. Depending on what layout the customer chooses, a fixed price is charged as a one-off payment.

There are a minimum number of transactions that the customer is required to pay for per month. Besides, there is a clause in the contract, which obliges the customer to pay for at least 50% of the estimated volume per month. However, the clause is based on the estimated volume initially and is rarely updated. Therefore, the clause rather serves as

an assurance of future revenues for Economy Supplier when acquiring a new customer and it is very seldom used.

#### **6.3.1.2 External factors**

Economy Supplier takes a number of different factors into account when determining what pricing method to use. For example, the volume that each customer purchases is an important aspect. The cost drivers of each customer are also identified and estimated. By evaluating the previous history (if it exists) with the customer, an overall evaluation of the customer can be made. However, to some extent it is a subjective evaluation and aspects such as brand might influence the pricing decision. Since Economy Supplier operates in a highly competitive market, the pricing of their competitors is also an aspect that they consider.

#### **6.3.1.3 The relation between the service provider and the customer**

Economy Supplier's customers rarely ask for alternative pricing methods. Nevertheless, they have wanted to negotiate the setup for the existing one.

Economy Supplier uses quantity discounts for key customers. Either they give a reduced price above a certain quantity, i.e. the first 1000 transactions are charged at one price  $p$ , and any quantity above that breakpoint is charged with a price that is less than  $p$ , or they give a lower price per transaction initially for the entire volume. What approach that Economy Supplier chooses, is a question of negotiation with customers. They prefer, however, not to give a reduced price beforehand, as such an approach implies a risk for Economy Supplier. Nevertheless, this is difficult to achieve, and in general the approach with a lower initial price is most common with the exception of cases with high uncertainty. The quantity discount is unique for every business agreement, derived from a cost-plus logic, and might vary depending on the factors mentioned previously.

When customers ask for an application that does not exist, Economy Supplier estimates how useful the application would be for the rest of their customer-base. In case it could be useful, Economy Supplier will develop the application without charging the specific customer. However, if the application is highly customized, Economy Supplier might charge the customer for the development. In that case, the R&D cost is charged as a fixed price per hour.

#### **6.3.1.4 Effects of the pricing method**

From a customer perspective, the advantage of the pricing method is that the cost is linked to how much the service is utilized and it is thus easy to estimate beforehand. When sales are up for the customer, so are the costs for the service. However, in case of reduced sales this is likewise reflected in the costs. On the contrary, a cost that is variable might be difficult to estimate. Customers that have fluctuating sales might therefore potentially find such a pricing method risky.

From Economy Supplier's perspective, on the other hand, every effort to reduce cost will affect the bottom line positively. The drawback is that the risk is born by Economy Supplier as their revenues are tightly linked to the sales of their customers.

### 6.3.2 Service characteristics

Table 6.9 below presents the ranking of the service characteristics for Economy Supplier.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult		X					
Degree of customization 1 = standardized, 7 = customized			X				
Degree of complexity 1 = very simple, 7 = very complex				X			
The nature of the relationship with customer 1 = short-term, 7 = long-term							X
Scope of the relationship with customer 1 = not extensive, 7 = extensive							X

Table 6.9. Findings service characteristics for Economy Supplier.

#### 6.3.2.1 Ease of specifying service

Economy Supplier mainly offers a set of standardized services. It is therefore easy to specify the service in advance.

#### 6.3.2.2 Degree of customization of the service

Economy Supplier offers a set of standardized services, which can be combined in different ways in order to match the need of the customer.

#### 6.3.2.3 Degree of the complexity of the service

The service is considered as fairly complex as the purchase of Economy Supplier's services usually involves restructuring of the organization. This might include a reduction of the personnel.

#### 6.3.2.4 The nature of the relationship with the customers

Economy Supplier usually has a long-term relationship with their customers.

#### 6.3.2.5 The scope of the relationship with the customers

If a customer purchases a service from Economy Supplier, they will usually give Economy Supplier 100% of that business.

### 6.3.3 Summary of Economy Supplier

Economy Supplier uses one pricing method, however, how the price *level* is set varies (table 6.10).

<b>Cost-based</b>	<b>The pricing method for the sales ledger function</b>
<b>General</b>	Economy Outsourcing sets a price/transaction that is partly influenced by internal costs, and partly by the market for low volume customers. The price for high volume customers is solely calculated based upon internal cost. The starting point is a to obtain a 50% margin on direct costs, however, the margin varies depending on the type of customer. The method is comprised of: <ul style="list-style-type: none"> <li>• Cost for implementation: establishment of information transfer, charged as a fixed price per hour (sometimes funded by Economy Outsourcing if it is a key customer) + layout of the invoices, charged as a one-off fixed price</li> <li>• Transaction-based component, which is multiplied by the number of transactions executed per month/customer</li> </ul>
<b>Advantages</b>	From the customer's perspective: <ul style="list-style-type: none"> <li>• The cost is linked to how much the service is used</li> </ul> From the service provider's perspective: <ul style="list-style-type: none"> <li>• Every effort to reduce costs will affect the bottom-line positively</li> </ul>
<b>Disadvantages</b>	From a customer's perspective: <ul style="list-style-type: none"> <li>• The cost might be difficult to estimate</li> </ul> From a service provider's perspective: <ul style="list-style-type: none"> <li>• They take on a risk as their revenues are linked to the sales of their customers</li> </ul>
<b>Industry Standard</b>	The pricing within the industry is ad hoc and a number of different pricing methods exist

Table 6.10. Summary of Economy Supplier's pricing method.

The pricing method can be formulated mathematically as:

$$P(q) = L + c * t + \sum_{t=months} p_{cost} * q$$

where:

L = the cost for layout of the bill

c = the price per hour for consulting services used for the implementation

p<sub>cost</sub> = the price per transaction (cost-based)

q = the number of transactions that the customer executes per month.

Economy Supplier takes the following factors into considering when they determine what pricing method to use and how to set the price (table 6.11).

<b>External factors that affect the choice of pricing method</b>	<ul style="list-style-type: none"> <li>• The volume each customer purchases</li> <li>• The cost drivers of each customer i.e. the workload each customer requires</li> <li>• Previous history with the customer</li> <li>• Brand image might influence</li> <li>• The competition</li> </ul>
--	--

Table 6.11. Findings external factors that Economy Supplier takes into consideration.

## 6.4 Case study findings - Transport Procurement

Transport Procurement is a small company with independent supply chain consultants that work with tendering processes. Prior to the establishment of Transport

Procurement, the employees used to work for another large Swedish company within the same industry that focuses on freight analyses and freight procurement processes.

#### **6.4.1 Pricing method**

##### **6.4.1.1 Examining the pricing method**

The pricing method that is used by Transport Procurement is mainly gain-sharing. The pricing method requires that the savings can be measured easily, which is the case for freight tendering processes. Although the savings for the customer may last up to around three years, Transport Procurement only shares the saving with the customer the first year. In the event that no potential savings are found, the customer will not be charged.

The remuneration fee is calculated based on the current situation and on statistics dating 12 months back in time. Transportation costs are measured and potential cost savings are estimated. However, even though Transport Procurement might find carriers that would save, for instance, 10%, the customer might only want to implement 5% of the potential savings. The 5% cost reduction will hence be shared between the customer and Transport Procurement.

On two occasions, customers have been charged with a fixed price instead of using gain-sharing. The reason for this was that the volume of transports for these customers was very low and, hence, the savings would not have been sufficient enough to be profitable for Transport Procurement.

The reason why gain-sharing is the predominantly used pricing method is that the pricing method is easy for the customer to understand. Moreover, gain-sharing is believed to correspond well with particularly the tender process service, since the customer only pays for the improvements that are made. Gain-sharing is also believed to be the most commonly used pricing method within the industry.

Transport Procurement has also tried to use a pricing method that is composed of a combination of fixed price + a smaller percentage on the savings. Such a pricing method, however, has been difficult to convince the customers to accept, since the customers initially are paying for something without knowing what they will get.

##### **6.4.1.2 External factors**

Before starting the tender process for a customer, Transport Procurement will first take the customer's turnover into account. Transport Procurement knows by experience that they will be able to save approximately 10% of the transportation costs. Since transportation costs usually add up to around 3% of the total turnover, the customer needs to have a turnover around 75-100 million SEK to be a lucrative business for Transport Procurement.

In the end, it all comes down to negotiations with the customer. The price sensitivity of the customer therefore plays a crucial role both regarding pricing method and price level.

##### **6.4.1.3 The relation between the service provider and the customer**

Mostly, the savings are split between Transport Procurement and the customer but the percentage may vary. For instance, some customers that have a very large volume of transports might require that Transport Procurement will only be allowed to take part of a maximum amount of the savings. Conversely, Transport Procurement might require a minimum compensation.

Sometimes the customer asks for a fixed price. However, after Transport Procurement has presented the different pricing alternatives, i.e. gain-sharing, fixed price or fixed price + smaller percentage of the savings, the customer always opts for gain-sharing.

Transport Procurement always strives to have their customer contact as high up in the organisation as possible. This will simplify the business deal, since the president of the company, or controllers, are not threatened by the services offered by Transport Procurement.

#### 6.4.1.4 Effects of the pricing method

The interviewee mentions a few advantages with gain-sharing. Firstly, the pricing method is easy for the customer to understand. Hence, it is easier to gain acceptance at the customer company when using gain-sharing. A second advantage from the customer's point of view is that the risk is born by the provider. This in turn, is a drawback from a provider's point of view; if the customer decides not to implement the proposed changes, Transport Procurement will miss out on revenues. Transport Procurement also takes a risk in estimating the future situation when calculating the potential savings. To eliminate this risk, Transport Procurement always tries to do follow-ups after some time to make sure that the savings that were split between Transport Procurement and the customer correspond to the real savings. Another disadvantage from a provider's point of view, is that when it is time for the customer to pay according to the gain-sharing plan, the customer often finds the compensation too high. The problem is that the customer only considers the costs and not the actual savings. Sometimes, this can result in new negotiations with the customer about the compensation fee.

#### 6.4.2 Service characteristics

Table 6.4 below presents the ranking of the service characteristics for Transport Procurement.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult	X						
Degree of customization 1 = standardized, 7 = customized	X						
Degree of complexity 1 = very simple, 7 = very complex		X					
The nature of the relationship with customer 1 = short-term, 7 = long-term		X					
Scope of the relationship with customer 1 = not extensive, 7 = extensive							X

Table 6.12. Findings service characteristics for Transport Procurement.

##### 6.4.2.1 Ease of specifying service

The service is very easy to specify, since a tender process is rather straightforward.

##### 6.5.2.2 Degree of customization of the service

Freight procurement and tender processes are very standardized.

#### 6.4.2.3 Degree of the complexity of the service

From Transport Procurement’s perspective, the tender process is very simple. Sometimes, however, the service includes more complex features e.g. when new supply conditions must be considered.

#### 6.4.2.4 The nature of the relationship with customer

The tender process takes about 4 months. Hence, the contact time with the customer is fairly short. Besides, only about 10% of the customers are recurring customers. The interviewee hence describes the relationship with customer as short-term.

#### 6.4.2.5 The scope of the relationship with customer

Transport Procurement will only be able to perform the tender process successfully if the customers consent to give Transport Procurement information about their entire transport business. Hence, the scope of the relationship is very extensive.

### 6.4.3 Summary of Transport Procurement

Transport Procurement uses one pricing method, gain-sharing:

Value-based	Gain-sharing
<b>General</b>	<ul style="list-style-type: none"> <li>• The savings are mostly split between Transport Procurement and the customer, but the percentage may vary.</li> <li>• Transport Procurement only charges for the first year’s savings, although the savings often lasts up to three years for the customer.</li> <li>• The potential savings are calculated based on the present situation and statistics up to 12 months back in time. Transport Procurement also makes follow-ups to make sure that the savings split corresponds to the real savings.</li> <li>• The savings are always calculated from the perspective of the customer: if the customer chooses a solution that does not account for the maximum potential savings, it is still these savings, and not the maximum savings, that will be split between the two parties.</li> <li>• Customers with a high volume of transports sometimes request not to pay more than a maximum fee.</li> <li>• Transport Procurement might require a minimum compensation fee.</li> </ul>
<b>Advantages</b>	<p><b>From the perspective of the customer:</b></p> <ul style="list-style-type: none"> <li>• Should Transport Procurement not find any potential savings, the customers will not be charged for the work done → the customer takes no risk</li> </ul> <p><b>From the perspective of the provider:</b></p> <ul style="list-style-type: none"> <li>• Since the pricing method is easy for the customer to understand, it becomes easier to gain acceptance at the customer company.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• If the customer decides not to implement those changes that would lead to the greatest savings, TP will miss out on revenues.</li> <li>• There is always a risk in estimating potential savings.</li> <li>• The customer often focuses on the costs and not on the actual savings → can lead to new negotiations about the compensation fee.</li> </ul>
<b>Industry Standard</b>	To use gain-sharing as pricing method is industry standard.

Table 6.13. Summary of Transport Procurement’s pricing method.

Gain-sharing (or the remuneration fee that the customer pays the provider) can be formulated mathematically as:

$$p(S) = \alpha * S$$

where: S = the saving

$\alpha$  = the share that will accrue the provider, hence  $(1-\alpha)$  is the share that will accrue the customer

Transport Procurement takes the following factors into considering when they set the price (table 6.14).

<b>External factors that affect the choice of pricing method</b>	<ul style="list-style-type: none"> <li>The turnover of the customer company: To be a lucrative business for Transport Procurement, the customer needs to have a turnover around 75-100 millions.</li> </ul>
--	---

Table 6.14. Findings external factors that Economy Supplier takes into consideration.

## 6.5 Case study findings - SCM Consulting

SCM Consultancy is a small consultancy firm that is owned by a large organization but serves as an independent consultancy company. Hence, the company has both internal customers, i.e. the parent company, and external customers. The services offered by SCM Consultancy are somewhat different depending on whether the customer is the parent company or an external customer. Internally, SCM Consultancy mainly conducts industry analyses, while the services offered to external customers are consulting services focused on Supply Chain Management. More specifically, the external consulting services includes everything from simpler calculations to the development of new supply chain strategies for the client company.

### 6.5.1 Pricing method

#### 6.5.1.1 Examining the pricing method

In general, SCM Consultancy uses a *running cost per unit of time*. Internal customers are charged per hour while external customers are charged either by the hour or by day. SCM Consultancy knows by experience what price per hour that will generate a profit. Sometimes, however, SCM Consultancy uses a *fixed price* instead. When using a fixed price, it becomes even more important to incorporate a risk factor in the price since the risk in this case is born by SCM Consulting. Approximately 25 percent of the projects are charged with a fixed price, and the existing 75 percent with a running cost per hour.

Both ways of pricing, i.e. a running cost and fixed price, are based on cost-plus + a risk factor. Sometimes a bargaining margin is also added to the price. Expenses due to travelling, accommodation and allowance are usually excluded in the quotation. Occasionally, however, the customer requires SCM Consulting to estimate these costs beforehand. The *price level* that the customer faces is the same irrespective of the level of experience among the consultants.

The CEO of SCM Consulting believes that other consulting companies of the same size as SCM Consulting use the same pricing method. In other words, cost-based pricing expressed either as a price per unit of time or as a fixed price, is considered to be the industry standard. He believes, however, that large Consulting firms use gain-sharing more often, since these firms have the resources required to succeed with such a pricing method. Common in the Consulting industry is to charge the customer one third in the start up phase, one third when half of the work has been done and the last third after finishing the project. SCM Consulting, however, only charges its customers at the very end of the project phase if the project is minor, but every month if the project is larger in size.

SCM Consulting has used gain sharing with one customer. The problem that arose from using this method, however, was that the amount of resources required, both from SCM

Consulting and the customer company to reach an agreement about the contract; what parameters should be taken into consideration, what will be measured and how will it be measured etc., was too extensive. Hence, SCM Consulting has realized that it is not worthwhile to use gain-sharing.

According to the CEO, a value-based pricing method would probably better reflect the services offered than the present cost-plus method. Such a pricing method is, however, difficult to establish, since the services offered by SCM Consulting are targeted at level not high enough in the customer company to pursue such a pricing strategy. Mostly, it is the director of logistics who is the contact person, and since the task of the director of logistics mainly is to cut costs and not to consider the value that is created for the company as a whole, the actual benefits created from using a value-based pricing method are not apparent.

#### **6.5.1.2 External factors**

The pricing method used by SCM Consulting is essentially cost-plus. Some factors, however, affect whether the cost-plus pricing method will be expressed as a running cost per unit of time or as a fixed price.

- If the customer company is small and hence has a lower turnover, a fixed price is sometimes chosen. The reason for this is that the risk of cost increases is eliminated when using a fixed price since the customer will know the exact price beforehand.
- If the company is larger and has greater turnover, SCM Consulting can easier get through with a running cost (which is the pricing method preferred by SCM Consulting).

One of the greatest uncertainties with Consulting services at SCM Consulting is the time and cost associated with the gathering of useful data. SCM Consulting never knows beforehand how long it will take to obtain data that can be used for further analysis. If the scope of the project is large, the so-called "cleaning" of data is excluded from the original quotation. Cleaning of data is always charged as a running cost per hour.

Even though the pricing method will be the same irrespective of the industry and customer company, the *price level* will vary. If the customer company is an experienced user of Consulting services, SCM Consulting will be able to charge the company a higher price than if the company has no previous experience. The reason for this is that these customers realize the value of not having to perform the service in-house and do not only consider costs and results, as the non-experienced customers often do. However, according to the CEO, the pricing method used is still cost-plus, but with a higher margin, and not based on value. He believes that the services offered must be more unique to allow for such a pricing strategy.

#### **6.5.1.3 The relation between the service provider and the customer**

Some customers have proposed to use gain-sharing. However, after having discussed the difficulties with formulating the contract most customers have changed their opinion.

#### **6.5.1.4 Effects of the pricing method**

SCM Consulting prefers to use a flexible price, since this results in an elimination of the risk for them. Using a flexible price means that the customers are charged on a continuous basis, and hence SCM Consulting will be paid for all hours spent on the project.

When using a fixed price instead, the problem is that the price often is set too low in order to attract the customer. Consequently, the consultants are forced to work extra hours that SCM Consulting will not be able to charge the customer for. However, if the work can be done in a lot less time than estimated, SCM Consulting will be well paid for a relatively small effort.

### 6.5.2 Service characteristics

Table 6.15 below presents the ranking of the service characteristics for SCM Consulting.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult						X	
Degree of customization 1 = standardized, 7 = customized							X
Degree of complexity 1 = very simple, 7 = very complex						X	
The nature of the relationship with customer 1 = short-term, 7 = long-term						X	
Scope of the relationship with customer 1 = not extensive, 7 = extensive					X		

Table 6.15. Findings service characteristics for SCM Consulting.

#### 6.5.2.1 Ease of specifying the service in advance

Due to the nature of consulting services, it is difficult to specify the services that the customer needs before conducting a pre-study or discussing the problem situation. The CEO therefore rates the ease of specifying the service as a 6.

#### 6.5.2.2 Degree of customization of the service

The services offered are extremely customized and hence the projects performed by SCM Consulting are very different in character.

#### 6.5.2.3 Degree of the complexity of the service

The services offered by SCM Consulting, i.e. consulting service, are complex in nature.

#### 6.5.2.4 The nature of the relationship with the customers

Since the Consulting work is performed in projects, the contact time with the client company is relatively short. Nevertheless, SCM Consulting always strives to build long-term relationships with their clients. Hence, the relationship with the customers is rated as a 6.

#### 6.5.2.5 The scope of the relationship with the customers

The scope of the relationship with SCM Consulting's customers is extremely varying. Projects concerning the design of the entire supply chain are very extensive and include a major part of the customer's business. Sometimes, however, the projects are minor in size and only include a very small part of the customer's business, e.g. when optimizing the unloading of goods. Hence, the scope can neither be described as not extensive nor as being extensive and has therefore been rated as a 4-5.

### 6.5.3 Summary of SCM Consulting

The pricing method, and how it is used, is presented in table 6.16 below. The cost-based price is divided in a variable price, i.e. running cost per hour, and a fixed price.

Cost-based	Variable price	Fixed price
<b>General</b>	<ul style="list-style-type: none"> <li>Used for 75 percent of the projects</li> </ul> <p><b>Internal customer</b></p> <ul style="list-style-type: none"> <li>Charged per hour</li> </ul> <p><b>External customers</b></p> <ul style="list-style-type: none"> <li>Charged per hour or per day</li> <li>Easier to get through with flexible prices when the customer is a large company with high turnover</li> </ul>	<ul style="list-style-type: none"> <li>Used for 25 percent of the projects</li> <li>Mainly used when the customer is a small company with low turnover</li> <li>Important to incorporate a risk factor in the price since SCM Consultancy takes the entire risk</li> </ul>
	<ul style="list-style-type: none"> <li>Both methods are based on cost-plus pricing + risk factor + bargaining margin.</li> <li>Expenses due to travelling, accommodation and allowance are excluded in the quotation.</li> <li>The customer faces the same <i>price level</i> irrespective of the level of experience among the consultants.</li> </ul>	
<b>Advantages</b>	<p><b>From the provider's perspective:</b></p> <ul style="list-style-type: none"> <li>Risk elimination, since SCM Consultancy is charged per unit of time</li> </ul>	<p><b>From the customer's perspective:</b></p> <ul style="list-style-type: none"> <li>The customer knows exactly what he/she will be paying → eliminates the risk for the customer.</li> </ul>
<b>Disadvantages</b>	<p><b>From the customer's perspective:</b></p> <ul style="list-style-type: none"> <li>The customer will not know beforehand exactly how much the service will cost, since it depends on the amount of hours SCM Consultancy has spent working on the project.</li> </ul>	<p><b>From the provider's perspective:</b></p> <ul style="list-style-type: none"> <li>A specially reduced price is often used to attract customers → the price is often set too low to be profitable</li> <li>The risk is born by the provider</li> </ul>
<b>Industry Standard</b>	<ul style="list-style-type: none"> <li>Cost-plus expressed either as a price per unit of time or as a fixed price is considered to be industry standard.</li> <li>Really large consultancy firms, however, have enough resources to also use gain-sharing.</li> </ul>	

Table 6.16. Summary of SCM Consulting's pricing method.

The pricing methods used can be formulated mathematically as:

**Running cost per hour**

$$p(t) = C(1 + \mu)^* t$$

where  $\mu$  = the added marginal

C = costs that can be assigned the project

t = the number of hours spent on the project

**Fixed price**

$$p(A) = A$$

where, A = the fixed price A irrespective of hours spent on the project.

SCM Consulting takes the following factors into considering when they determine what pricing method to use and how to set the price (table 6.17).

<b>External factors that affect the choice of pricing method</b>	<ul style="list-style-type: none"> <li>• The process of gathering useful data often represents a risk, since it is impossible to estimate in advance how long it will take to obtain data for further analysis. The “cleaning” of data is thus always excluded from the original quotation.</li> <li>• The <i>price level</i> depends on how accustomed the customer is to consultancy services → An experienced user will be charged a higher price.</li> </ul>
--	--

Table 6.17. Findings external factors that SCM Consulting takes into consideration.

## 6.6 Case study findings – FreightMovement

FreightMovement is a large global company, owned by another large organization. However, FreightMovement serves as an independent logistics service provider (3PL/4 PL) offering logistics services for the total supply chain including consulting, management and operations.

### 6.6.1 Pricing method

#### 6.6.1.1 Examining the pricing method

FreightMovement has recently focused a lot on developing the pricing policy and improving the definition and estimation of the service value that the company brings to the customer. Around 50 percent of the total customer base is internal customers and the other half consists hence of external customers.

Cost-plus pricing is the most common method mainly due to historical reasons. FreightMovement started as an internal department within the parent company but was later on spun off as an independent logistics service provider. The majority (approximately 80 %) of the total services are priced based on costs, where the internal customers have a higher degree of transparency in the prices. Approximately 20% of the total services are priced with value based pricing. For new external customers a value based pricing method is usually used.

Gain-sharing is used for some customers. However, since gain-sharing both is very administrative for FreightMovement and also is difficult for the customer in terms of estimating the final cost, the pricing method is very often replaced by a fixed price. Gain-sharing has also on some occasions been used for consulting services. The Business Development Manager emphasizes that it is important to clearly agree with the customer how to measure and share the savings, when using gain-sharing.

A fixed price is used for many of the added value services. A lot of the services are bundled into one price, which makes it difficult for the customer to see the price for each service included and how to affect the price.

What pricing method that is used depends on the type of service, i.e. the offering, and the type of customer. FreightMovement has categorized both services and customers according to the matrix shown in table 6.18. The y-axis in the matrix describes how important a specific customer is from the perspective of FreightMovement. The x-axis describes the level of commoditisation of the service. A customer that is rated as high value / important and who buys a high-value speciality service could, for example, be charged according to the value-based pricing method. The less value of both the customer and the offering, the pricing method tends to change into cost-plus pricing. The aim, however, is to use value-based pricing to a larger extent. A pre-requisite for value-based pricing is to understand the own value and the customer value. In order to

succeed with value-based pricing, skills of how to communicate and sell value to the customer is needed.

Different services can be bundled into a unique service offering. In other words, although the customer gets an all-in price for the bundled service, each service that is included in the bundle could have been priced according to different pricing methods in the matrix. Bundling different services to a unique service offering makes it thus possible to communicate the value of the service offering and to use a value-based pricing method.

FreightMovement believes that cost-plus is the industry standard pricing method. There has only been a slow move towards the use of value-based pricing within the industry, which is due to the difficulties in quantifying the value.

	<b>High-value speciality product</b>	<b>Differentiated competitive product</b>	<b>Commoditised product</b>
<b>High value/importance customer</b>	X/Y/Z pricing method	X/Y/Z pricing method	X/Y/Z pricing method
<b>Medium value/importance customer</b>	X/Y/Z pricing method	X/Y/Z pricing method	X/Y/Z pricing method
<b>Low value/importance customer</b>	X/Y/Z pricing method	X/Y/Z pricing method	X/Y/Z pricing method

Table 6.18. Customer and Offer segmentation matrix. Developed by FreightMovement.

#### 6.6.1.2 External factors

According to the Business Development Manager, some external factors affecting the price are changes in fuel prices, volumes, fluctuating exchange rates, road taxes, laws and regulations and changes in raw material prices. These factors influence the *price level* but not the choice of pricing method.

#### 6.6.1.3 The relation between the service provider and the customer

At the moment FreightMovement is conducting a project that aims to create a common understanding of how customer perceive value in the relation with a logistics service provider. The aim of the project is to create and test a segmentation model for both different customers and services. Firstly, interviews with account managers within the company have been conducted and then the segmentation model has been tested on some customers.

#### 6.6.1.4 Effects of the pricing method

FreightMovement is currently using different pricing methods depending on the type of the service, i.e. the offering, and the type of customer. According to the Business Development Manager at FreightMovement, value based pricing is the way to financially benefit from the value they deliver to its customers. Value based pricing moves the pricing discussion from the “price tag” to the “value”. The challenge is to make the customer realize the value from the services and to estimate the perceived customer value.

### 6.6.2 Service characteristics

Table 6.19 below presents the ranking of the service characteristics for FreightMovement.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult						X	
Degree of customization 1 = standardized, 7 = customized						X	
Degree of complexity 1 = very simple, 7 = very complex						X	
The nature of the relationship with customer 1 = short-term, 7 = long-term						X	
Scope of the relationship with customer 1 = not extensive, 7 = extensive				X			

Table 6.19. Findings service characteristics for FreightMovement.

#### 6.6.2.1 Ease of specifying the service in advance

If the customer already has identified the need, it is very easy for FreightMovement to specify the services in advance. The same is true after a dialogue with the customer, where the customer situation and what processes that would need to be improved is discussed. However, to specify the service without having discussed the situation with the customer in advance is very difficult. Hence, the Business Development Manager describes the ease of specifying the service as a 6.

#### 6.6.2.2 Degree of customization of the service

Internally within FreightMovement the different services are described as rather standardized. However, the different services can be bundled into a unique service offering to the customer. The service offering the customer is facing is thus very customized and was ranked as 6.

#### 6.6.2.3 Degree of complexity of the service

According to the Business Development Manager, the services are very complex and a number of parameters affect the offerings. Hence, the complexity was rated as a 6.

#### 6.6.2.4 The nature of the relationship with the customers

FreightMovement usually has a long-term relationship with their customers. The Business Development Manager rates the nature of the relationship as a 6.

#### 6.6.2.5 The scope of the relationship with the customers

Depending on whether the customer is an internal customer or an external customer, the scope of the relationship varies. The internal customers usually place all or a larger extent of their logistics businesses with FreightMovement, while external customers more often buys services within a specific service area. If the focus is placed on external customers, the scope of the relationship is described as a 4.

### 6.6.3 Summary of FreightMovement

It has not been concluded whether the value-based pricing method can be described as fixed, mixed or variable. Moreover, since FreightMovement did not want to explain what components that are included in their value-based pricing method, we have not been able to express this pricing method mathematically.

However, the payment principle used for cost-plus pricing is either fixed (if the customer is the parent company) or variable (if the customer is an external customer).

The mathematical formula is hence the same as the cost-plus method used by SCM Consulting.

<b>Value-based pricing</b>	
<b>General</b>	<ul style="list-style-type: none"> <li>• Used for external customers</li> <li>• The pricing method preferred by FreightMovement</li> <li>• The value is measured by first conducting a pre-study at the customer. This is charged per hour or with a fixed price.</li> </ul>
<b>Advantages</b>	When using value-based pricing there is less discussion about the <i>price level</i> with the customer
<b>Disadvantages</b>	It can be difficult to get the customer to realize the value that is created from using the service
<b>Industry Standard</b>	Due to the difficulties in quantifying value, there has only been a slow move towards value-based pricing within the industry. Without doubt, cost-plus is still industry standard.

Table 6.20. Summary of FreightMovement's value-based pricing method.

<b>Cost-plus pricing</b>	<b>Fixed price</b>	<b>Flexible price</b>
<b>General</b>	<ul style="list-style-type: none"> <li>• Always used for the parent company</li> <li>• Used for some added-value services for external customers</li> <li>• For the ongoing work with process optimization and cost reductions, all customers are charged a monthly fixed price.</li> </ul>	<ul style="list-style-type: none"> <li>• Mainly used for consultancy services</li> <li>• The flexible price is charged by the hour</li> </ul>
<b>Industry Standard</b>	Cost-plus is considered to be industry standard for 4PL services.	

Table 6.21. Summary of FreightMovement's cost-plus pricing method.

External factors influencing the choice of pricing method and the price level set, is shown in table 6.22.

<b>External factors that affect the choice of pricing method</b>	<p><b>Affecting the price method:</b></p> <ul style="list-style-type: none"> <li>• Internal or external customer</li> <li>• Type of service/Type of customer (see table 10.18)</li> </ul> <p><b>Affecting the price level:</b></p> <ul style="list-style-type: none"> <li>• Changes in fuel price, volumes, fluctuating exchange rates, road taxes, laws and regulations etc.</li> </ul>
--	--

Table 6.22. Findings external factors that FreightMovement take into consideration.

## 7. Analysis of pricing methods

*Some additional points regarding the advantages and disadvantages with a certain pricing method were brought up in the case studies that are not covered in the theory chapter. Those will be presented in the extension of the theory chapter 7.1. Then, common features among the advantages and disadvantages for the pricing methods will be discussed in chapter 7.2.*

### 7.1 Extension of the theory chapter

In order to summarize all advantages and disadvantages that have been found in this thesis, the pricing methods and payment principles where additional information has been added will be reviewed again, hence, extending the theory chapter with empirical data. The case company that has mentioned the additional information will be shown in brackets after the specific piece of information.

Interesting to note is that only two of the case companies brought up disadvantages with the different pricing methods and payment principles from the customer's perspective ; Economy Supplier for transaction-based pricing and SCM Consulting for a running cost per hour. However, the advantages for the customer as well as both advantages and disadvantages for the provider were discussed more often .

#### 7.1.1 Pricing methods

Additional information related to customer perceived value pricing, gain-sharing and performance-based pricing have been gathered during the interviews. The information is presented in table 7.1, 7.2 and 7.3 below. Cost-plus pricing and market-based pricing were not discussed by the case companies, and thus the theory has not been extended for these two pricing methods. The companies using cost-plus pricing chose to instead mainly focus on the payment principles during the interview, and hence no additional information has been added.

##### 7.1.1.1 Customer perceived value pricing

Value-based pricing is used by IT-1 and FreightMovement. Both companies believe that this pricing method is most suitable for their services, since it focuses on the value that is generated.

Customer perceived value pricing	
Advantages (theory)	<ul style="list-style-type: none"> <li>The pricing method is linked to the customers' needs</li> </ul>
Advantages (empirics)	<ul style="list-style-type: none"> <li>Less discussion about the price level (FreightMovement)</li> </ul>
Disadvantages (theory)	<p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>Data regarding the measuring of value is difficult to collect and interpret</li> <li>Customer value is not given, but needs to be communicated.</li> </ul>
Disadvantages (empirics)	<p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>It can be difficult to get the customer to realize the value that is created from using the service (FreightMovement)</li> </ul>

*Table 7.1. Advantages and disadvantages with value-based pricing (theory + empirics).*

### 7.1.1.2 Gain-sharing

The advantages and disadvantages found in theory and empirics regarding gain-sharing are shown in table 7.2. The only company that uses gain-sharing among the case companies is Transport Procurement. The advantages discussed in the theoretical framework mainly focuses on “operational” advantages, such as improvement of operational efficiency and lowering of costs. However, information that was brought up during the interview with Transport Procurement also addresses more external factors, such as risk. According to the case company, a major advantage of a gain-sharing agreement for their customers is that the entire risk is born by Transport Procurement, i.e. if no savings are found, the customer will not be charged. However, gain-sharing in general does not necessarily mean that the customer is never charged if no savings are made. It could be that the customer still has to pay a minimum fee. The disadvantages discussed in the theory mainly focuses on the issue of sharing sensitive information. Transport Procurement and Erik Fox also highlight another issue, namely that instead of focusing on the savings the customer’s cost focus can lead to new negotiations about the remuneration fee.

	<b>Gain-sharing</b>
Advantages (theory)	<p><b>From a provider’s perspective:</b></p> <ul style="list-style-type: none"> <li>• Has opportunity for gain-sharing payments</li> <li>• Increases its share of customer’s business</li> </ul> <p><b>From a customer’s perspective:</b></p> <ul style="list-style-type: none"> <li>• Improves the comprehension of its own costs</li> <li>• Improves operational efficiency</li> <li>• Lowers total cost</li> </ul>
Advantages (empirics)	<p><b>From a provider’s perspective:</b></p> <ul style="list-style-type: none"> <li>• Easier to gain acceptance at customer company, since the pricing method is easy to understand (Transport Procurement)</li> </ul> <p><b>From a customer’s perspective:</b></p> <ul style="list-style-type: none"> <li>• Customer only pays for the improvements that are made (Transport Procurement)</li> <li>• The risk is born by the provider: if the provider cannot find any savings, the customer will not be charged. (Transport Procurement)</li> </ul>
Disadvantages (theory)	<ul style="list-style-type: none"> <li>• Difficulties in measuring performance</li> </ul> <p><b>From a provider’s perspective:</b></p> <ul style="list-style-type: none"> <li>• The customer might not want to share sensitive information</li> </ul> <p><b>From a customer’s perspective:</b></p> <ul style="list-style-type: none"> <li>• Pre-agreement of baselining requires sharing of sensitive information</li> </ul>
Disadvantages (empirics)	<p><b>From a provider’s perspective:</b></p> <ul style="list-style-type: none"> <li>• Difficulties in estimating potential savings (Transport Procurement)</li> <li>• Customers often focus on costs and not on savings, which might result in new negotiations about the compensation fee (Transport Procurement, Erik Fox)</li> </ul>

Table 7.2. Advantages and disadvantages with gain-sharing (theory + empirics).

### 7.1.1.3 Performance-based pricing

None of the companies included in the case study use performance-based pricing for their services. Hence, this pricing method was not discussed in detail during the interviews. However, the comment made by Erik Fox, i.e. that it can be difficult to set appropriate bonuses and penalties, extends one of the disadvantages found in the theory, i.e. that difficulties can arise in identifying the performance metrics.

One of the advantages with this pricing method that we want to highlight in particular, is that it aligns provider and customer incentives. The alignment of incentives will further be discussed in chapter 7.1.2.

Performance-based pricing method	
Advantages (theory)	<ul style="list-style-type: none"> <li>• Built-in incentives to reduce costs and improve productivity</li> <li>• Alignment with customer</li> <li>• The risk is born by the provider</li> <li>• Flexibility for the provider</li> </ul>
Advantages (empirics)	<ul style="list-style-type: none"> <li>• Not discussed.</li> </ul>
Disadvantages (theory)	<ul style="list-style-type: none"> <li>• Difficulties in identifying performance metrics</li> <li>• Difficulties in achieving results</li> <li>• Ambiguous metrics might provoke disagreements</li> </ul>
Disadvantages (empirics)	<ul style="list-style-type: none"> <li>• Difficulties in setting appropriate bonuses or penalties that correspond to the increased or decreased value (Erik Fox)</li> </ul>

*Table 7.3. Advantages and disadvantages with a performance-based pricing method (theory + empirics).*

### 7.1.2 Payment principles

How different pricing methods are built up has also been discussed. Additional information has been found for a fixed price, transaction-based pricing and a running cost/hour. The two latter payment principles are two modifications of a variable price.

#### 7.1.2.1 Fixed price

IT-1 makes an interesting point regarding the disadvantage of fixed pricing, and argues that a high fixed price can be very administrative since it has to be approved higher up in the customer organization. To instead spread out the fixed price on several invoices will make the offering seem less expensive, and hence, the pricing decision at the customer company can be decentralized. Erik Fox argues that, although the risk is born by the provider when using a fixed price, the provider might still choose this pricing method since it increases the flexibility (due to the fact that a fixed price is non-transparent). Other advantages and disadvantages that were brought up during the interviews are shown in table 7.4

	<b>Fixed price</b>
Advantages (theory)	<ul style="list-style-type: none"> <li>• Most appropriate when uncertainty is low and risks are controllable by the provider</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• The risk is born by the provider</li> </ul>
Advantages (empirics)	<p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• The customer knows the exact price → risk elimination (SCM Consulting)</li> </ul> <p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• Increased flexibility (due to low transparency in customer contract) → Risks can be managed more effectively (Erik Fox) <ul style="list-style-type: none"> <li>◦ E.g. if the provider is a 4PL-provider, the choice of carriers does not have to be justified (Erik Fox)</li> </ul> </li> </ul>
Disadvantages (theory)	<ul style="list-style-type: none"> <li>• Might cause disagreement about what is included in the price</li> <li>• Does neither take the competition into account nor the customers willingness to pay</li> <li>• Inappropriate when uncertainties are high</li> </ul> <p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• The risk is born by the provider</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• The provider will add a premium for the cost of risk</li> </ul>
Disadvantages (empirics)	<ul style="list-style-type: none"> <li>• No alignment is created between the customer and the provider (Erik Fox)</li> </ul> <p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• Easier for the customer to compare prices (Erik Fox)</li> <li>• In the event that the fixed amount is large: <ul style="list-style-type: none"> <li>◦ The invoice might have to be approved higher up in the customer organization (IT-1)</li> <li>◦ The offering might appear expensive compared to if the invoice was sent more often in smaller amounts (IT-1)</li> </ul> </li> </ul>

Table 7.4. Advantages and disadvantages with fixed price (theory + empirics).

#### 7.1.2.2 Transaction-based pricing

One of the advantages that was mentioned in the theory regarding transaction-based pricing is that the pricing method aligns the incentives of the customer with the ones of the provider. Findings from the interviews also show that transaction-based pricing can be beneficial both for the customer and the provider. For instance, IT-2 and Economy Supplier explains that, when using transaction-based pricing, the customers only pay for what they use. This substantiates the finding from the theory that suggests that transaction-based pricing is closely linked to the customer's business cycle. According to IT-1, an advantage for the provider, on the other hand, is that the financial situation is safer since the case flow is more even.

A disadvantage that was brought up in the theory is that the transaction-based price may not be directly tied to the customer's business outcome. However, another disadvantage from the provider's perspective that was mentioned by Economy Supplier is that the provider bears a risk. This, since the provider's revenues depends on the customer's transaction flow. Hence, if the forecasted volumes not are redeemed, the provider will potentially suffer. A similar reasoning was made by IT-1 regarding the all-unit discount, see Quantity discounts, 7.1.2.4.

	Transaction-based pricing
Advantages (theory)	<ul style="list-style-type: none"> <li>• Flexible and variable cost structure</li> <li>• Enhances visibility into consumption pattern</li> <li>• Alignment of incentives <ul style="list-style-type: none"> <li>◦ Exploiting economies of scale → lower cost per transaction. The savings can be passed on to the client.</li> </ul> </li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• Easier to compare prices with competitors</li> <li>• Closely linked to customer's business cycle</li> </ul>
Advantages (empirics)	<p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• Safer financial situation since the cash flow is more even. Hence, easier to cover fixed costs (IT-1)</li> <li>• The decision to purchase the service can be decentralized in the customer organization if each invoice amounts for a smaller amount (IT-1)</li> </ul> <p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• Customers pay only for what they use (IT-2, Economy Supplier) <ul style="list-style-type: none"> <li>◦ Reduced risk for the customers, as the costs reflect their revenue stream (IT-1)</li> </ul> </li> </ul>
Disadvantages (theory)	<ul style="list-style-type: none"> <li>• May not be directly tied to customer's business outcome.</li> </ul>
Disadvantages (empirics)	<ul style="list-style-type: none"> <li>• Customers with fluctuating sales might find the pricing method risky since the price is not known beforehand (Economy Supplier)</li> </ul>

Table 7.5. Advantages and disadvantages with transaction-based pricing (theory + empirics).

#### 7.1.2.3 Running cost per unit of time

The theory did not provide any advantages or disadvantages with a running cost per unit of time, since this pricing method was only mentioned briefly as a modification of transaction-based pricing. However, SCM Consulting specifically pointed out both an advantage and a disadvantage with a running cost per unit of time. The company uses both a fixed and a variable price. A running cost per hour is, however, the preferable pricing method out of the two, mainly due to the fact that the company is ensured payment for all the hours that are spent on a certain project.

	Running cost per unit of time
Advantages	<p><b>From a provider's perspective:</b></p> <ul style="list-style-type: none"> <li>• Risk elimination. The customer is charged per unit of time (SCM Consulting)</li> </ul>
Disadvantages	<p><b>From a customer's perspective:</b></p> <ul style="list-style-type: none"> <li>• The exact price is not known beforehand, since the amount depends on the number of hours spent on the project (SCM Consulting)</li> </ul>

Table 7.6. Advantages and disadvantages with running cost per hour (empirics).

#### 7.1.2.4 Quantity discounts

Similar to a running cost per unit of time, advantages and disadvantages with quantity discounts was not found in the studied literature, but was addressed by some of the case companies. Two different kinds of quantity discounts have been discussed; all unit discounts and marginal unit discounts. The information is presented in table 7.7 and 7.8.

Regarding the all unit discount, one advantage was identified by IT-1 with respect to the customer. However, from the provider's perspective, only disadvantages were brought up. Since the customer is given a lower price from the first transaction, this implies a certain risk for the provider if the customer does not execute the forecasted number of transactions.

Although no disadvantage was brought up for marginal quantity discount, a disadvantage from the customer's perspective, compared to the all unit discount, is that the discount is not given from the very beginning. Instead, the customer has to reach a certain number of transactions. However, this means that the risk for the provider is eliminated.

<b>All unit discount</b>	
Advantages	<b>From a customer's perspective:</b> <ul style="list-style-type: none"> <li>The customer is given a lower price from the first transaction (IT-1)</li> </ul>
Disadvantages	<b>From a provider's perspective:</b> <ul style="list-style-type: none"> <li>To initially give a reduced price implies a risk for the provider if the customer does not execute the forecasted number of transactions (IT-2, ES)</li> </ul>

Table 7.7. Advantages and disadvantages with all unit discount (empirics).

<b>Marginal unit quantity discount</b>	
Advantages	<b>From a provider's perspective:</b> <ul style="list-style-type: none"> <li>The customer is given a reduced price per transaction above a certain breakpoint → eliminates the risk of uncertain forecasts compared to all unit discounts (IT-2)</li> </ul>
Disadvantages	Not found.

Table 7.8. Advantages and disadvantages with marginal quantity discount (empirics).

## 7.2 Risk allocation and incentives for different pricing methods

Previously, the advantages and disadvantages for the selected pricing methods have been investigated, either in the theory or in the extension of the theory chapter 7.1. However, taking a closer look at the advantages and disadvantages, there are some returning features among the pricing methods. More specifically, they concern the transfer of risk and the aspect of built-in incentives in the pricing method. The following aspects are commonly mentioned: the risk allocation (who bears the risk? The provider or the customer, or is it shared in between the provider and the customer), the provider's incentive to perform (to what extent does the pricing method incorporate incentives for the provider to perform at a maximum?), and finally, the customer's assurance that the goals are achieved. In other words, different pricing methods create different incentives, and also allocate the risk differently. Hence, depending on what one wants to achieve, some pricing methods will be more suitable than others. The following chapter will provide a discussion about risk allocation and incentives for different pricing methods. The ranking in figure 7.1-7.3 is based on the theory in chapter 4.2 and the case studies in chapter 6.

### 7.2.1 Risk allocation

As shown in figure 7.1, the risk is born by the provider when the contract is outcome-based or involves a fixed price. However, empirics show that although the risk is born by the provider, many providers still prefer to use these methods. One benefit with a fixed price is that it gives the provider flexibility. For example, SCM Consulting prefers to use a fixed price for some projects that they know can be performed quickly. The project will hence be more profitable than it would have been if they had to declare the amount of hours spent on the project. Outcome-based agreements can also be profitable in terms of possible bonuses or an increase in compensation. Hence, it can be noted that potential profit often goes hand in hand with risk. Altogether, fixed- and outcome-based pricing methods transfer the risk to the provider, whereas cost-based contracts transfer the risk in the opposite direction.

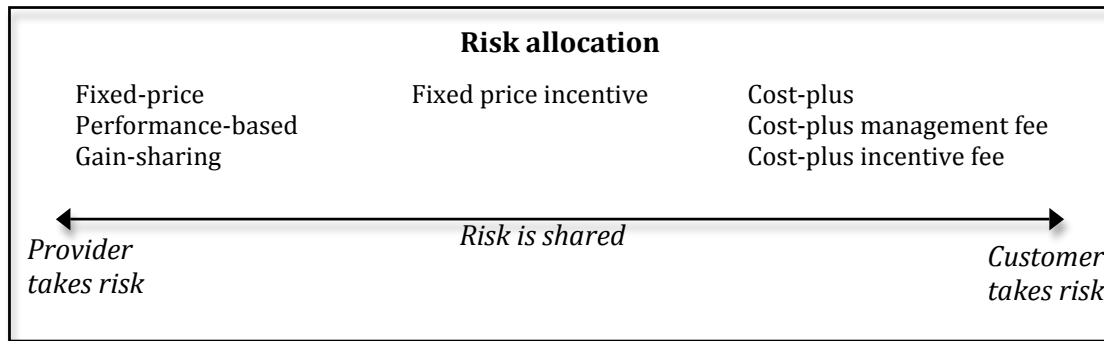


Figure 7.1. Risk allocation when using different pricing methods.

### 7.2.2 Provider's incentive to perform

With the concept “provider’s incentive to perform”, we focus on the kind of performance that results in measurable outputs and that also benefits the customer, such as productivity improvements or cost-reductions that accrue the customer. When using outcome-based pricing methods, i.e. performance-based pricing or gain-sharing, the provider’s motivation to perform is clearly high, since a better performance will result in a higher compensation from the customer. When using cost-plus, on the other hand, the provider will be compensated for cost-increases and one could argue that no incentives are created for the provider to increase the performance. The same is true for the fixed price; although there might be incentives for the provider to decrease the costs or finish faster than expected, this will result in increased profit for the provider itself, and there is thus no incentive to perform in increased quality or to pass along the enhancements that are made to the customer. The ranking of different pricing methods with respect to the provider’s incentive to perform is shown in figure 7.2.

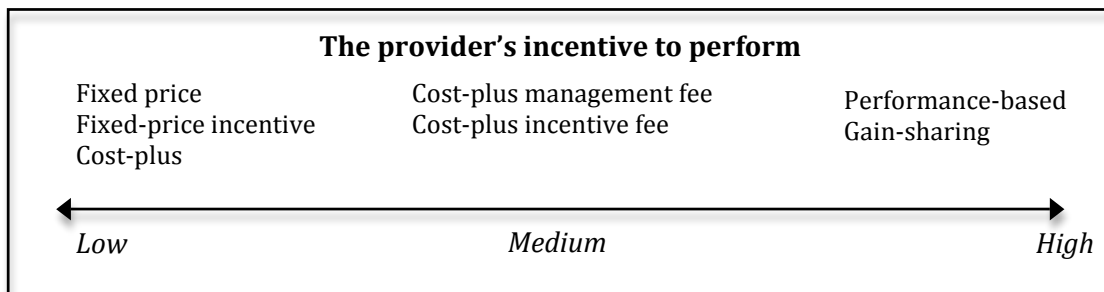


Figure 7.2. Pricing methods influencing the provider's incentive to perform.

### 7.2.3 Customer's assurance that goals are achieved

A customer that wants to assure that goals are achieved should request an outcome-based contract, since incentives are created for the provider to perform in the customer’s best interest. Cost-based contracts and fixed price, on the other hand, do not ascertain that the customer’s goals are achieved, since the provider’s contractual incentive to perform is low. Cost-plus is ranked as medium, since theory suggests that if the provider improves productivity, some benefits will accrue the customer. The ranking of different pricing methods to assure that the customer’s goals are achieved is shown in figure 7.3.



## 8. Cross-case analysis

*We have pursued a qualitative research approach in this study in order to get a deeper understanding of why certain companies or industries price their services in the way they do. The aim has been to get to the root of the pricing issue and understand why certain methods or payment mechanisms are suitable for a specific context. The purpose of the cross-case analysis is to look at pricing from a more holistic perspective to investigate whether there are convergent pricing patterns between the industries.*

The pricing methods that are used by the case companies are summarized in table 8.1 below. The star indicates that SCM Consulting believes that the pricing method would be ideal for their services. However, it is not the one that is currently used. The pricing methods are divided into three categories depending on how the price is derived, i.e. from a cost (C), market (M) or value (V) perspective. Furthermore, the payment principle for each pricing method, i.e. how the pricing method is built up, fixed (f), variable (v) or a combination of the two, mixed (m), will be marked as subscript of either a cost-, market-, or value-based pricing method. There are thus 9 different combinations of the pricing methods according to this logic. In case a company uses more than one pricing method, each pricing method is represented by one symbol. The symbol represents to what extent the company uses the pricing method, e.g. a circle that is all marked in black implies that the pricing method is used for all customers (100%), whereas a symbol where 75% of the circle is marked in black implies that the specific pricing method is used for 75% of the customers.

The classification needs to be justified for some of the case companies:

- FreightMovement provides a range of services, whereby it is difficult to generalize the payment principle that is used for the business as a whole. The subscript is therefore left out for their pricing methods.
- Economy Supplier's pricing method will be classified as cost/market-based, since the price for low volume customers is partly influenced by the market.
- IT-2's license method resembles IT-1 transaction method since there actually is a variable part in the formula. However, the price per transaction is a lot smaller than in IT-2's transaction method, whereby the overall idea with the pricing strategy is the same, i.e. to charge the customer with a large lump sum initially. Hence, we have chosen to classify it as fixed.

	IT-1	IT-2	ES	TP	SCM	FM
Cost-based			● C/M <sub>m</sub>			● C <sub>f</sub> /C <sub>v</sub> ● C
Market-based		● M <sub>v</sub> /M <sub>f</sub>				
Value-based	● V <sub>f</sub> /V <sub>v</sub>				● V <sub>v</sub>	* ● V

Table 8.1 The pricing methods that are used by each case study object.

Figure 8.1 shows that cost-plus is the most widely used pricing method (the conclusion is drawn taking into consideration that FreightMovement uses cost-plus in 80% of the cases, and only value-based for 20% of the cases). This finding is substantiated in the

literature as cost-plus pricing has been found to be the most common pricing method in previous research (Avlonitis and Indounas, 2005, 2006).

### 8.1.1 Service characteristics

All the interviewees that participated in the case study were asked to rank a number of service characteristics on a Likert scale from 1-7. The results are illustrated in table 8.2-8.6, where each service characteristic will be presented and elaborated on individually.

#### 8.1.1.1 Degree of complexity

The degree of complexity is discussed with regard to a definition made by the authors; a complex service incorporates various elements and requires extensive knowledge to execute.

Service characteristic	1	2	3	4	5	6	7
Case company		TP		IT-2 ES		SCM FM	IT-1
Degree of complexity <i>1 = very simple, 7 = very complex</i>		V <sub>v</sub> ●		M <sub>f</sub> ◐ M <sub>v</sub> ● C/M <sub>m</sub> ●		C <sub>f</sub> ◐ C <sub>v</sub> ● C ◐ V ◐	V <sub>f</sub> ◐ V <sub>v</sub> ◐

Table 8.2. Findings degree of complexity.

IT-1, FreightMovement and SCM Consulting have been ranked at the higher end of the scale as providing services that are complex (table 8.2). IT-1 uses a value-based pricing method to 100%. FreightMovement employs a value-based pricing method in 20% of the cases, and cost-plus for the rest. However, 50% of the projects that are conducted by FreightMovement are projects related to the parent company. These projects will always be transparent cost-plus contracts due to the previous background with the parent company. Hence, the fraction between cost-plus and value-based pricing for external customers is about 60/40. New customers are preferably charged with a value-based price. SCM Consulting, on the other hand, charges its customers with a price that is derived from a cost-plus logic. However, Freight Movement has expressed a desire to use value-based pricing more extensively and SCM Consulting believes that it would be the ideal pricing method for their services. None of the companies that are ranked at the lower end of the scale have discussed value-based pricing method as a potential pricing method. This finding suggests that a service with a high degree of complexity tend to either have a price that is derived from a value-based logic, or be considered that it should ideally be priced so.

However, Transport Procurement challenges the previous assumption since it uses value-based pricing in terms of gain-sharing although it is ranked as a service that is simple. The findings show that Transport Procurement often contradicts case companies that also have been classified as value-based. Therefore, we question the feasibility of categorizing, and thus comparing, gain-sharing with a value-based pricing method.

According to Fernie (1999, see subchapter 4.6.3), on the other hand, empirical studies show that services that are more complex in nature are based on cost, whereas simpler services are based on outcome. These findings are to some extent supported by the research in this study; Transport Procurement is ranked as a simple service and it employs an outcome-based pricing method in terms of gain-sharing. In addition, both SCM Consulting and FreightMovement use cost-plus pricing to a greater or lesser extent.

However, the point that we want to make is that although there are companies that are currently pricing their offerings based on cost, they indicate that a value-based pricing method would be optimal. The “gap” between the current pricing method and the desirable pricing method can be explained by the literature. Research shows that the value-based pricing method is given much more attention in the academic world, than it is practised in reality<sup>155</sup>. The reason is that many companies are finding it difficult to measure and communicate the value that they create. An example is given by SCM consulting, who says that ideally they should charge their services based upon the value that they create. Nevertheless, usually the counterpart on the customer side is a logistics manager, who cares less about creating value and more about cutting costs. It is thus difficult to pursue a pricing strategy that is based upon value. IT-1 and FreightMovement, on the other and, have progressed a lot further in the process of applying a value-based pricing. FreightMovement specifically mentions that they have carried out, and are still doing so, several projects concerning pricing of their services.

### 8.1.1.2 Degree of customization

IT-1, SCM Consulting and FreightMovement are ranked as providers of customized services, and they either use value-based pricing or believe that their services ideally should be priced so (see table 8.3). It seems therefore logical to suggest that companies that offer a service that is highly customized, to a greater extent either indicate that it would be ideal to use a value-based pricing method or is currently doing so. The authors suggest that the reason why value-based pricing is more common among customized services is because the alternatives in the market are more difficult to compare than they are for services that are more standardized. This logic is also reflected in the results on the lower end of the scale; IT-2 and Economy Supplier are ranked as services that are standardized, and they also employ a pricing method that is adjusted by the market to a greater extent. IT-2 uses a market-based pricing method for all their services, whereas Economy Supplier sets prices according to cost-plus, however, the price level is significantly influenced by market conditions for some customer segments. The difference between the two pricing methods employed by IT-2 and Economy Supplier is that Economy Supplier has relatively large direct costs associated with each transaction, whereas the direct costs of each transaction for IT-2 is negligible.

Service characteristic	1	2	3	4	5	6	7
Case company	TP	IT-2	ES			IT-1 FM	SCM
Degree of customization <i>1 = standardized, 7 = customized</i>	V <sub>v</sub> ●	M <sub>f</sub> ◐ M <sub>v</sub> ●	C/M <sub>m</sub> ●			V <sub>f</sub> ◐ V <sub>m</sub> ◐ C ◐ V ◐	C <sub>f</sub> ◐ C <sub>v</sub> ●

Table 8.3. Findings degree of customization.

The authors suggest that IT-2 and Economy Supplier are obliged to conform to average market prices to a greater extent as the nature of their services forces them to do so. Especially, Economy Supplier has commented on that the competitive environment will not allow a price that is not in line with the rest of the market.

<sup>155</sup> Hinterhuber (2008)

For the second time, Transport Procurement differs in comparison to the rest of the companies that employ value-based pricing methods, which yet again suggests that gain-sharing should not be compared with a value-based pricing method.

Furthermore, Roth et al. (2006, see subchapter 4.4.1) suggest that a high degree of customization favours a bargaining strategy. SCM Consulting is the only company that is ranked at the far high end of the scale, and it is also the only company that specifically discussed the field of bargaining. They add a so-called bargaining margin to the initial price in order to prepare themselves for such price discussions. This finding substantiates the suggestion that has been made in the literature.

### 8.1.1.3 Ease of specifying the service

The answers from the previous service characteristic, degree of customization, seem to be closely linked to the ease of specifying the service. In all cases, with the exception of IT-1, a low score for degree of customization has given a low score for ease of specifying the service in advance (see table 8.4). The same has been found to be true for the high scores. Given the similarity between the characteristics, the discussion from the previous section can be applied to this context; companies that offer a service that is difficult to specify in advance seems to favour a value-based pricing, whereas a service that is easier to specify in advance seems to generate a pricing strategy that is more responsive to the market.

Service characteristic	1	2	3	4	5	6	7
Case company	TP	IT-2 ES	IT-1			SCM FM	
Ease of specifying the service 1 = very easy, 7 = very difficult	V <sub>v</sub> ●	M <sub>f</sub> ◐ M <sub>v</sub> ● C/M <sub>m</sub> ●	V <sub>f</sub> ◐ V <sub>m</sub> ◐			C <sub>f</sub> ◐ C <sub>v</sub> ● C ◐ V ◐	

Table 8.4 Findings ease of specifying the service.

However, there are a couple of exceptions, IT-1 and Transport Procurement, which do not follow the abovementioned suggestion. As in the previous cases with degree of complexity and customization, Transport Procurement remains contradictory in comparison to the rest of the companies that use a value-based pricing method. However, gain-sharing differs in comparison to the value-based pricing methods that the other companies use in that respect that the value is measured as a *cost-reduction* and not as the *perceived value* of the customer. To be able to carry out gain-sharing, it is observed in the literature that the value (or outcome) of the service must be easy to define, measurable, possible to translate into monetary pay-outs and last, but not least, must be easy to share in terms of agreeing on the share of the savings<sup>156</sup>. Since the service and the outcome coincides in the case of Transport Procurement (their service is to offer a cost-reduction), it is thus logical that Transport Procurement service is ranked as standardized, simple and easy to specify in advance.

In the case of IT-1 prices, all of its services are priced according to a value-based logic despite the fact that the service is ranked as a three on the scale between very easy and very difficult to specify in advance. Potentially, it is a high degree of customization and

<sup>156</sup> Thomson & Anderson (2000)

complexity that create a suitable context for value-based pricing, whereas the ease of specifying the service is not as tightly linked to value-based pricing. However, commonly given that a service is highly customized and very complex, it is usually difficult to specify the service in advance (this assumption is also proved by most of the case study objects). However, some companies, and potentially IT-1, manage to create a business that is perceived as both customized and complex, although the service in fact incorporates elements that are standardized. An example is a consulting firm, where the provider of the service considers some parts of the project to be very standardized, whereby the provider will let less experienced consultants execute those. Nevertheless, at the point of delivery, surely, more experienced consultants will take on and present the project. Thereby, they will make the service seem very customized although the majority of the service process included standardized elements. From a provider's perspective the service is hence fairly easy to specify in advance, although the service is customized. Altogether, the suggestion is thus that a highly customized and complex service favours a value-based pricing. Commonly, such a service is usually difficult to specify, however, it is not a necessity.

The previous discussion about when certain pricing methods are appropriate with respect to ease of specifying service and degree of customization resembles that of Mitra and Cappella (1997, see chapter 4.4.1). They discuss how search-, experience- or credence-based services are related to the ability to charge a price differential. Search-based services are referred to as services that are easy to evaluate prior to purchase, whereas credence-based services, on the contrary, are difficult to evaluate even after the purchase. They hence argue that the amount of knowledge that is available to customer prior to purchase is greater for search-based services than for credence-based services. Similarly, the authors of this thesis argue that the amount of knowledge that is available for services that are *standardized* or *easy to specify in advance* is greater, than for services that are *customized* or *difficult to specify in advance*. Mitra and Cappella (1997) continues the discussion by suggesting that due to the amount of knowledge available, the price-elasticity of search-based services is higher than for credence-based services, therefore companies that offer search-based services tend to have more market-based pricing methods, whereas companies that offer credence-based services are more likely to command higher prices and employ price differentials.

This is also true for the research conducted in this study; services that are standardized and easy to specify apply to a greater extent a market-based method, whereas more customized services that are difficult to specify in advance either apply a price differential or command a higher price. FreightMovement applies a price differential in terms of the matrix that they apply for every customer relation and SCM Consulting in terms of charging more experienced customers with a higher price. IT-1, on the other hand, does not use price differentials but one could argue that they command a higher price for their services as they employ value-based pricing. However, in addition to what has been suggested by Mitra & Cappella (1997), it is observed in this case study that companies that provide a credence-based service or a service that is customized or difficult to specify in advance, do not only command a higher price or employ price differentiation, but either indicate that value-based pricing would be ideal, or is currently using it.

#### **8.1.1.4 The nature of the relationship with customers**

There is no distinct pattern among the case companies regarding a certain pricing method linked to the nature of the relationship with customers (see table 8.5). The majority of the respondents rank the relation as long-term, whereas SCM Consulting is ranked slightly lower and Transport Procurement is ranked at the lower end of the scale. The authors suggest that the reason why the previous two companies are ranked

lower is due to the nature of the service that they are offering; it has a clearly defined beginning and end. Conversely, the rest of the companies provide a service that is ongoing, which results in that the end of the service is not determined. To have a long-term relation with customers for those companies is thus logical.

Service characteristic	1	3	4	5	6	7
Case company		TP		SCM	IT-2 FM	IT-1 ES
The nature of the relationship with customers <i>1 = short-term, 7 = long-term</i>		V <sub>v</sub>		C <sub>f</sub> C <sub>v</sub>	M <sub>f</sub> M <sub>v</sub>	V <sub>f</sub> V <sub>m</sub>
					C	C/M <sub>m</sub>
					V	

Table 8.5 Findings the nature of the relationship with customers.

#### 8.1.1.5 Scope of the relationship with customers

The scope of the relationship with customers is discussed with regard to the definition made by the authors; an extensive scope of the relationship implies that the customer gives the provider 100% of that particular business, i.e. there are no other subcontractors involved.

Service characteristic	1	2	3	4	5	6	7
Case company				SCM FM	IT-1	IT-2	ES TP
Scope of the relationship with customers <i>1 = not extensive, 7 = extensive</i>				C <sub>f</sub>	V <sub>f</sub>	M <sub>f</sub>	C/M <sub>m</sub>
				C <sub>v</sub>	V <sub>m</sub>	M <sub>v</sub>	V <sub>v</sub>
				C			
				V			

Table 8.6 Findings the scope of the relationship with customers.

IT-2, Economy Supplier and Transport Procurement, are ranked at the high end of the scale (see table 8.6). These are also services that previously have been ranked as standardized and easy to specify. We suggest that the correlation might be due to the fact that for services that are standardized and easy to specify, the alternative on the market are fairly similar. It is thus easier to compare and evaluate the service prior to purchase, whereby once having done so, customer tend to give a larger scope of the business to the service provider, as oppose to the case where service is more difficult to evaluate. The latter implies an uncertainty and might be the reason why the rest of the companies, SCM Consulting, FreightMovement and IT-1 have a lower ranking than the previous mentioned companies. The extensive scope that Transport Procurement has with its customers is given by the type of service that they offer and what pricing method that they apply on that, namely, gain-sharing. Transport Procurement is typically carried out for the entire pool of transports. Taking a smaller scope than so would result in sub optimization of the transport flow. Altogether, no distinct pattern among the companies regarding a certain pricing method linked to the scope of the relationship with customers was found.

#### 8.1.1.6 Payment principles

All pricing method combinations, apart from one, are used by at least one of the case study objects (see table 8.7). The variety of pricing methods support the discussion in

the literature that pricing is a situation specific issue, and that different service, organizational and environmental factors influence companies in different ways. Thus, different pricing methods have to be applied depending on the context.











	Cost-based	Market-based	Value-based
Fixed	SCM 	IT-2 	IT-1 
Variable	SCM 	IT-2 	TP 
Mixed	ES 		FM 
	FM 		IT-1 

Table 8.7 Shows the distribution of cost-, market-, and value based pricing methods in combination with a fixed, variable or mixed payment principle for all case study objects.

A variable price or a combination of a fixed price and a variable price (such as a price/transaction) are found to be the most common among the case companies. A variable or a mixed price transfer the risk to the customer, which might be the reason why most case companies seem to prefer such a pricing.

A fixed price seems not to be as commonly used as a variable or a mixed payment principle for the main service that the companies offer. The term “main service” in this context refers to all services that are not add-on services. A fixed price might, however, be a *subpart* of the pricing method (in that case it is referred to as mixed). The companies that charge the main service with a fixed price are SCM Consulting (35%), IT-1 (50%), and IT-2 (5%). Neither IT-1 nor IT-2 prefer the pricing method, and they are trying to use it as little as possible. However, although it is not common to charge the main service with a fixed price, most companies, use this pricing method for their add-on services or for start-up/implementation. In fact, all companies, apart from Transport Procurement and SCM Consulting, mention that they do so. When a fixed price is applied, the risk is born by the provider. This might be the reason why the companies tend not to use a fixed price for the main part of their services. SCM Consulting, on the other hand, discusses the implications of a fixed price and mentions that it sometimes can be beneficial. For example, standardized projects that are very easy to specify in advance are suitable to charge with a fixed price. In this case SCM Consulting can do the project quickly and reap the benefit of not having to declare the amount of hours spent on the project. SCM Consulting has also noticed that customers with a low turnover are more likely to ask for a fixed price. This is due to the fact that they do not want to take the risk since their financial situation cannot bear considerable cost variations. They value hence the certainty of knowing the exact price beforehand.

#### 8.1.1.7 The use of various pricing methods

Four companies out of the six use more than one of the nine different pricing method combinations that can be made by combining a cost-, market- or value-based price, with either a fixed, variable, or mixed payment principle. However, the reason why these companies use more than one differs, either different pricing methods are used depending on the type of *customer*, the type of *service* or both (see figure 8.1).

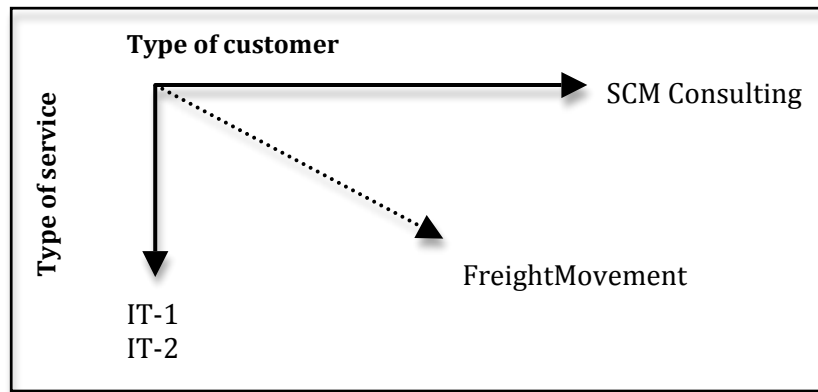


Figure 8.1 The companies that use more than one pricing method either have different pricing methods depending on the type of customer, the type of service or both.

In the case of SCM Consulting, the choice of pricing methods usually depends on the customer's turnover, i.e. the type of *customer*. IT-1 and IT-2, on the other hand, apply different pricing methods depending on what type of *service* that the customer requires, i.e. whether the customer needs to install software on their in-house computers, or whether they are able to purchase the service as a Software-as-a-Service. FreightMovement, is different in comparison to the previous companies in that respect that it uses both parameters when they decide on what pricing method to use (see matrix in chapter 6.6.11). They might even use several pricing methods for one customer (if the customer purchases more than one service). The seemingly more advanced approach might be due to the fact that FreightMovement provide a bundle of services that each is priced individually. Although the rest of the companies offer services that can be customized or configured, the service itself that they provide is not as varied as that of FreightMovement.

The only companies that just use one pricing method are Economy Supplier and Transport Procurement. IT-2, on the other hand, only uses the mixed market-based pricing method for 5% of their customers, whereby it can be argued that in the majority of the cases they only use one pricing method. All these companies, IT-2, Economy Supplier and Transport Procurement, are ranked as standardized services that are easy to specify in advance. They are also ranked as less complex services than the rest of the case study objects. It can therefore be suggested that services that are customized and difficult to specify in advance to a greater extent use different pricing methods.

#### 8.2.1.8 Price differentiation and modular pricing

Our findings show that there were at least three companies that employ price differentiation; SCM Consulting tends to command a higher price for more experienced customers, FreightMovement charges internal and external customers differently, and Economy Supplier charges low volume customers with a price that is determined by the market to a great extent and high volume customers with a price that is solely based on their internal costs. It can be questioned whether IT-1 use price differentiation or not. They use a value-based pricing method, which hence implies that a price is set with respect to the perceived value of each customer. Nevertheless, it seems logical that the process of determining the value is carried out for more than one customer, or at least once such a process is executed the parameters that are identified can be used next time when a similar customer is acquired. Given that this assumption is true, it could be argued that IT-1 to some extent applies price differentiation. Transport Procurement, on the other hand, uses gain-sharing, which is a pricing method where price differentiation is difficult to discuss in the same sense as with other pricing methods, since the price set depends on the outcome.

Docters et al. (2004) address the complexity of pricing services and suggest modular pricing as a solution. They argue that the range of services that a company offers should be bundled together into modules, that each could be priced individually. The idea is that the customers hence could pick the set of modules that corresponds to their needs. In fact, FreightMovement's pricing matrix resembles the suggestion made by Docters et al. (2004). Also, IT-1 and IT-2 are thinking along the same lines, although they apply a market- or value-based pricing method for all modules. The idea of letting the customers pick (a set of) module(s) is, nevertheless, the same.



## 9. Reflections on possible pricing methods for SDS

*The purpose of this thesis has first and foremost been to create knowledge about different pricing methods but also to discuss potential pricing methods for SDS. In order to fulfil this purpose, functional substitutes and the pricing methods used within these industries have been investigated. Based on the cross-case analysis, which analyzed how different service characteristics influence the choice of pricing method, this chapter aims to analyze whether there is any indication that SDS should use other pricing methods than they are currently doing.*

This chapter will address problem statement D:

- D. Based on the findings from the statements A,B and C, is there any indication that SDS should use other pricing methods?

### 9.1 Pricing methods used by functional substitutes

According to personnel at SDS, *“the customer is the major competitor”*<sup>157</sup>. That is, the customer could decide not to outsource the supply chain to SDS and instead cherry-pick the services that they need from different functional substitutes. The functional substitutes are thus a potential threat to SDS, especially if they grow strong enough to be a competitive alternative to SDS’s services. It is therefore important for SDS to get a better understanding of how companies within these different industries price their services.

Each of the case companies can be categorized into one of the four industries in figure 9.1, apart from FreightMovement that will be excluded in this first part of the analysis. This, since FreightMovement is not a functional substitute to SDS. The main aspects of the pricing issue within each industry will be elaborated on individually below.

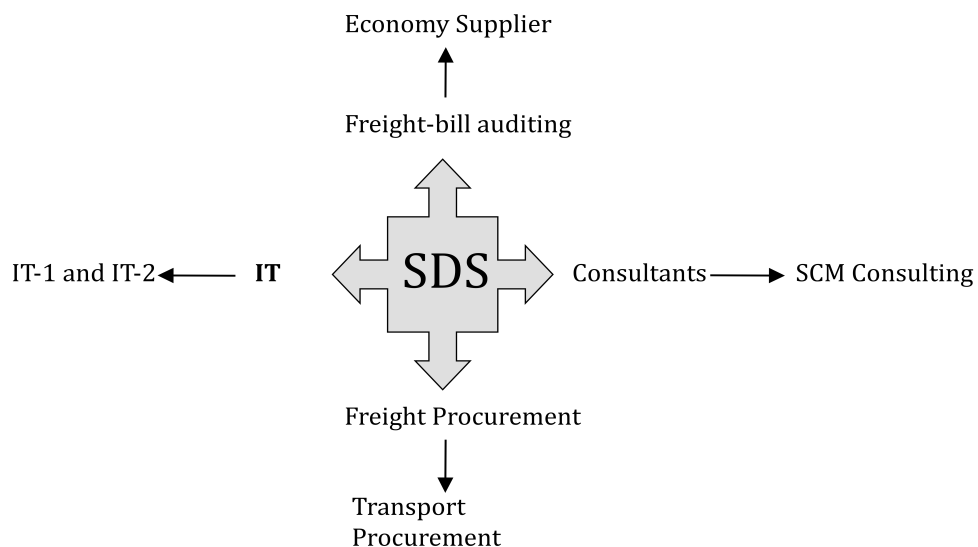


Figure 9.1. IT, Freight-bill auditing, Freight-Procurement, and Consulting are all functional substitutes to the 4PL industry.

<sup>157</sup> Interview with SDS personnel 2011-02-16

### 9.1.1 Supply Chain Management Consulting

The consulting company that was part of the case study, SCM Consulting, uses cost-plus to price its services. The majority of the services (75%) are charged as a running cost per unit of time, while 25% are charged as a fixed price. However, ideally the CEO believes that they should charge their services based upon the value that they create. Such a pricing method would better reflect the value that they generate. Cost-plus is believed to be industry standard.

According to the CEO at SCM Consulting, the *price level* that the customer faces is the same irrespective of how many years of experience that the consultants have. We assume that a consultant's salary logically should depend on the level of experience, whereby different consultants will generate different costs for SCM Consulting. This implies that the fixed price per hour that is charged is calculated based upon average costs, not the specific costs incurred for a particular project. Thus, customers who are assigned a less experience consultant team will bear the costs of the customers that are assigned more experienced consultants. With respect to the definitions in this thesis, the pricing method that SCM Consulting uses better corresponds to what we refer to as a cost-based pricing method charged per transaction (in this case a static price per hour).

### 9.1.2 Information & Technology

IT-1 prices its services based on the generated value, while IT-2 uses a market-based pricing strategy. Based on the cross-case analysis, this difference could be explained by the fact that IT-1 offers significantly more customized and complex services than IT-2.

The interviewees from the two companies are satisfied with the currently used pricing methods, however, they both express a desire to use more transaction-based pricing. Historically, both of the companies have priced their offerings with a fixed price. Nevertheless, IT-2 has managed to implement the variable pricing method for almost the entire customer base (95%). IT-1, on the other hand, is also aiming in the same direction, yet 50% of their customers are still charged with a fixed price. However, taking all the new customers acquired in the last five years, 80% are charged with a mixed price and only 20% are charged with a fixed price. The tendency is thus clear. The reason why IT-1 and IT-2 prefer a variable or mixed pricing method is primarily due to the fact that it is more profitable than a fixed price. The reason why it is more profitable might be that a transaction-based pricing method better reflects how much the customer uses the service. The finding is interesting considering to that the companies actually take a smaller risk when they use a variable payment principle as oppose to a fixed price. Another advantage with a variable pricing method is that it creates a more even cash-flow, which in turn affects where in the customer's organization the decision about purchasing the service can be made. For instance, an invoice that is sent once a month with a smaller amount can be approved on a lower level, than an invoice that is sent once a year that has accumulated the cost over the year. The theory<sup>158</sup> (see subchapter 4.2.4.2) substantiates the move towards a pricing method with a variable payment principle; a transaction-based pricing is found to be common in the IT-industry.

---

<sup>158</sup> Eckert et al. (2007)

### 9.1.3 Freight-Bill Auditing

The freight-bill auditing company that participated in the case study uses two different approaches to calculate the price for their services. Both approaches are, however, derived from a cost-plus pricing method. For low volume customers, a set price per transaction is used. This price is determined partly by considering internal costs and partly by considering what the market is willing to pay. For high-volume customers or non-standardized services, on the other hand, a unique price per transaction for every agreement is calculated. The starting-point for determining that price is to add 50% on direct costs. In general, the pricing in the industry is ad-hoc.

To charge a price that is based on cost (or partly the market) seems logical considering to what has been suggested in the literature; services for which there is information available in the market prior to purchase are easier to compare, hence companies that offer such services are more likely to use a market-based pricing method<sup>159</sup>. Although, the case company does not use a pricing method that is solely market-based, the price level is influenced by the market for standardized services and low volume customers.

### 9.1.4 Tendering and Freight Procurement

According to the interviewee, gain-sharing corresponds well to the services offered since the customer only pays for the improvements made, i.e. the savings. The drawback with gain-sharing agreements in general is that these contracts often are difficult to design. However, the interviewee explains that it is easy to design gain-sharing contracts within freight procurement, since this kind of service is very straightforward. Moreover, the generated savings can easily be measured. Gain-sharing is considered to be industry standard for freight procurement projects.

The importance of being able to easily measure the performance in order for a gain-sharing agreement to be successful is confirmed by the theory<sup>160</sup> (section 4.2.3.2).

## 9.2 Discussion of the findings with respect to SDS

The same service characteristics that each case study object was asked to rank, have similarly been evaluated with respect to SDS's services. The ranking of the service characteristics for SDS are presented in table 9.1 below.

Service characteristics	1	2	3	4	5	6	7
Ease of specifying the service 1 = very easy, 7 = very difficult						X	
Degree of customization 1 = standardized, 7 = customized							X
Degree of complexity 1 = very simple, 7 = very complex						X	
The nature of the relationship with customer 1 = short-term, 7 = long-term							X
Scope of the relationship with customer 1 = not extensive, 7 = extensive				X			

Table 9.1. Findings service characteristics for SDS.

<sup>159</sup> Mitra & Cappella (1997)

<sup>160</sup> Thomson & Anderson (2000)

### 9.2.1. Value-based pricing could be a suitable option

In the cross-case analysis, no distinct pattern was found regarding a specific pricing method and the nature of the relationship with customers. Nor was there any convergent pattern for a specific pricing method and the scope of the relationship with customers. However, some suggestions regarding the first three parameters shown in table 8.1, and its implications for the choice of pricing, method were made. These parameters, i.e. easy of specifying the service, degree of customization and degree of complexity, will therefore be discussed with respect to SDS's services.

It was suggested that companies that provide services that are complex and customized either use a value-based pricing, increasingly want to do so or indicated that it would be the ideal pricing method. Similar findings were observed for companies that offer services that are difficult to specify in advance, however, the result was not as evident as for the two previously mentioned service characteristics.

SDS's services are ranked as complex and customized, and they are currently using a cost-plus pricing strategy. Based on the findings, it could be argued that the nature of the service that SDS is offering provides the circumstances to investigate whether value-based pricing would be a suitable option.

#### 9.2.1.1 The importance of communicating value

We have discussed the possibility of using a value-based pricing method with personnel at SDS. They argue that: *"It is difficult to charge for the value created, since many customers still take SDS for a 3PL provider"*. One explanation to why SDS's customers sometimes take them for a 3PL provider could be that SDS does not communicate the value of its services through their current pricing methods. The field of contracts and how these affect the relation between the customer and the logistics service provider was discussed in the frame of reference<sup>161</sup>. It was argued that the pricing method chosen is a central part of the contract since the pricing method will guide the behaviour of both customer and service provider. We support that statement, and believe that it is important that SDS uses pricing methods that communicate the position that they want to take in the relationship with the customer, i.e. an active role in the long-term development of their customers' supply chain. At the moment, SDS's customers are charged per transport. We believe that this way of charging for the 4PL service does not communicate the value that is generated particularly well, since SDS offer their customers other services than just transports from A to B (e.g. process optimization, implementation and environmental impact assessment). We therefore suggest that the pricing method itself allows the customers to take SDS for a 3PL provider.

However, based on the interviews that we have conducted at SDS it seems like SDS is acting as a 4PL to a greater or lesser extent for the different customers. In fact, for one of the customers, SDS only serves as a forwarder. According to the previous discussion, we believe that this difference also should be communicated and reflected in the pricing method. Hence, in line with the previous section, we suggest that in those cases where SDS rather serves as a forwarder or a 3PL provider, another pricing method should probably be used compared to when SDS offers a more customized and complex full-range 4PL service. We suggest that a value-based pricing method is more suitable for the 4PL service, since it could be argued that more value then is generated to the customer.

---

<sup>161</sup> Lukassen & Wallenburg (2010)

### 9.2.1.2 Value-based pricing requires measurable outcomes

In order to better communicate the value, we believe that SDS must investigate “what value or outcome does a 4PL provider generate that a 3PL provider does not, and how can this value be measured?”. In other words, in order to price according to the generated value, SDS must be able to recognize how value is created and to calculate the value of its services. As discussed in chapter 5, SDS finds that value is created from their services by for instance offering *one* single contact, a dedicated division, high quality services, competitive prices (due to a large carrier base) and by making sure that their promises towards the customers are kept. One of the major difficulties with value-based pricing, however, is the estimation and quantification of the value<sup>162</sup>.

Regarding the customer perceived value we have not found any literature that discusses specifically how value-based pricing could be used for logistics services. However, one possible approach that was discussed in the frame of reference is the Economic Value Analysis<sup>163</sup>. If SDS finds value-based pricing to be an interesting concept, we therefore suggest that EVA should be further investigated to see if it could be applied to SDS’s 4PL service. To get a better understanding of customer perceived value, we also suggest that SDS should carry out projects similar to that of the case company FreightMovement. They have investigated the customers’ perceived value of a relation with a logistics service provider. In doing so, they have conducted interviews with account managers and developed a segmentation model for both services and customers. This model has then been tested on different customer segments.

#### → Suggestion 1: Carry out a project that investigates what value that SDS creates for its customers

The fact that FreightMovement, which similarly to SDS operates in the 4PL industry, uses a value-based pricing method for some of its services shows that it is possible to price according to the generated value. Moreover, we agree with personnel at SDS and some of the case companies that value-based pricing probably is the *ideal* pricing method for this kind of service. However, based on the cross-case analysis and theory we also believe that the outcome of the service must be measurable and possible to translate into monetary pay-outs in order for a value-based pricing method to be applicable. Hence, if SDS finds it difficult to estimate and quantify customer perceived value, we suggest that SDS preferably should use some of the other methods that we have chosen to classify as value-based pricing methods, namely gain-sharing or performance-based pricing. Besides, unlike customer perceived value, these two methods are often discussed in literature covering pricing of the logistics industry, which possibly could indicate that these methods are easier to use.

### 9.2.1.3 Incorporate outcome-based contracts in order to communicate value

During the interviews that we conducted with personnel at SDS, many interviewees explained that they have considered both gain-sharing and performance-based pricing as possible pricing methods for SDS’s services. In fact, for logistics services in general there is a positive trend of using bonuses and penalties in customer contracts<sup>164</sup>. However, for a performance-based contract to be successful, the performance metrics must be identified and agreed upon together with the customer, since ambiguous metrics might provoke disagreement. The same is true for gain-sharing agreements, where it is important to clearly agree with the customer how to measure and share.

---

<sup>162</sup> Lundén (2008)

<sup>163</sup> Thompson & Coe (1997)

<sup>164</sup> Lukassen and Wallenburg (2010)

The 4PL company included in the case study, FreightMovement, has decided to no longer use gain-sharing with their customers. They argue that the pricing method often results in heavy administration for both the customer and the provider and that it is difficult for the customer to estimate the final costs. However, Erik Fox<sup>165</sup> suggests gain-sharing as a possible pricing method for some part of the services. Also, the freight tendering company included in the case study, Transport Procurement, explains that gain-sharing is the optimal pricing method for their service. The major difference between Transport Procurement and FreightMovement, however, is that the outcome of the service that Transport Procurement offers is easier to define and measure. Nevertheless, we believe that FreightMovement also would be able to use gain-sharing or performance-based pricing for their services, if only they knew how to better measure the value that is generated.

We agree with Erik Fox and suggest that SDS should investigate the possibility to apply gain-sharing, but also performance-based pricing, to their services. One option, for example, could be to implement gain-sharing for a specific transport route, i.e. when SDS finds alternative routes that are cheaper than the standard routes in the network. Since the outcome of the route changing, i.e. the savings, is measurable, this complies with the criteria when an outcome-based contract can be used.

**→ Suggestion 2: Investigate the possibility to use either use gain-sharing or a performance-based pricing method**

Moreover, we believe that an outcome-based contract towards the customer could allow for SDS to differentiate from 3PL providers on the market by better communicating the additional value that is created from their services. In the case of gain-sharing the customer will take part of the savings made and, in the case of performance-based pricing, the customer will pay SDS according to their performance, i.e. the generated value.

Thus, we believe that SDS should continue to charge their customers per transaction, but that gain-sharing and performance-based pricing should be incorporated in order to better communicate the generated value.

**→ Suggestion 3: Continue to charge the customers per transaction but add outcome-based agreements to better communicate value**

Transaction-based contracts are becoming increasingly utilized within the logistics services industry and to charge for the transports per transaction also corresponds to the criteria when transaction-based pricing could be used: the forwarding process is fairly *standardized*, the transport service has *repeatable transactions* and is *easy to monitor and track*, each transport takes place within a *short duration of time* (hours/days) and has a *clearly defined beginning and end*<sup>166</sup>. Moreover, to charge for transport with a transaction-based pricing method also seems to be industry-standard.

**Outcome-based agreements create incentives for the provider to perform**

To be able to ensure a long-term sustainable fourth-party logistics relationship, it could be argued that the pricing method *at least to some extent* should incorporate incentives

---

<sup>165</sup> see chapter 4.6.4

<sup>166</sup> Miriyala & Xavier (2006)

for the provider to perform. In the previous chapter, pricing methods were ranked along a couple of parameters where “provider’s incentive to perform” was one (figure 9.2). With the objective of a 4PL provider in mind, we therefore suggest that at least some parts of the services should be priced with a pricing method that is at the medium-high end of that scale. Hence, to implement outcome-based agreements will not only allow SDS to better communicate the generated value, it will also ascertain the customer that SDS performs in the customer’s best interest. We believe that the alignment of such incentives is important in building a strong and long-term relationship.

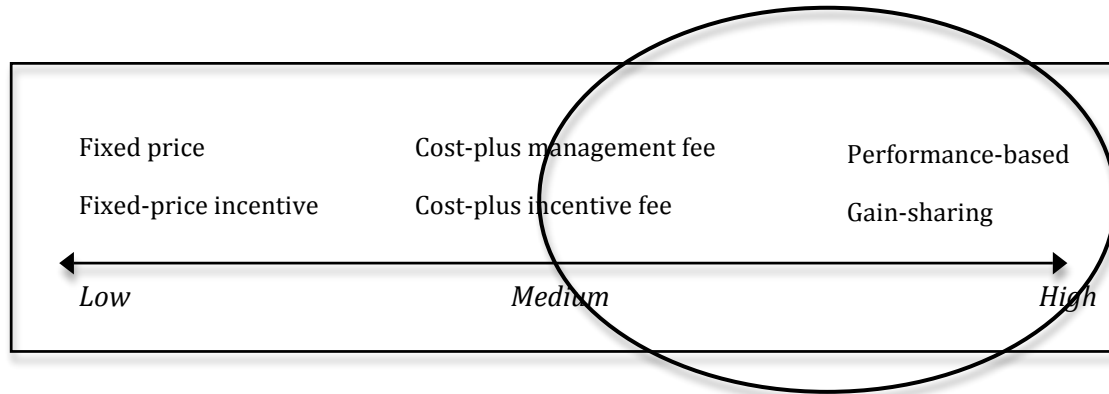


Figure 9.2. Shows the provider’s incentive to perform for a number of pricing methods.

### 9.2.2 Thoughts about modular pricing

The cross-case analysis shows that those companies that offer complex and customized services, just like the 4PL service offered by SDS, tend to use price differentiation and modular pricing to a greater extent than companies that offer services that are more simple and standardized. FreightMovement, which is the case company that most resembles SDS, has developed a matrix that is an example of a combination of modular pricing and price differentiation, shown in figure 9.2.

← Increasing degree of value

	High-value speciality product	Differentiated competitive product	Commoditised product
High value/importance customer	X/Y/Z pricing method	X/Y/Z pricing method	X/Y/Z pricing method
Medium value/importance customer	X/Y/Z pricing method	X/Y/Z pricing method	X/Y/Z pricing method
Low value/importance customer	X/Y/Z pricing method	X/Y/Z pricing method	X/Y/Z pricing method

↑ Increasing degree of value

Figure 9.2. Customer and Offer segmentation matrix developed by FreightMovement.

#### 9.2.2.1 Unbundling of services could allow for “cherry-picking”

Although FreightMovement give their customers an all-in price for some of their services, other services are charged for specifically. We have discussed whether SDS should follow this example and charge for sub-services such as process optimization and environmental impact assessment specifically, as a possible way to communicate the additional value that they generate in comparison to 3PL providers. However, we believe that such a pricing strategy could pose a risk, since it then becomes easier for the

customers to compare SDS's prices with the rest of the market. This might in turn initiate price discussions. Moreover, by charging for some of their services specifically, SDS will not only be exposed to competition from other 3PL/4PL providers with a similar set-up, but also from functional substitutes. Hence, to use modular pricing towards the customers instead of offering a bundled all-in price might result in that customers start to "cherry-pick" services from functional substitutes instead of outsourcing the entire transport management to SDS, that is, if SDS's prices are not competitive enough. We also believe that many of SDS's customers value an all-in price, not only due to simpler administration but also for the fact that the customer will know beforehand how much that should be paid. For this reason, we argue that SDS should continue to offer their customers an all-in price, and not follow the same path as FreightMovement.

→ **Suggestion 4: Continue to use an all-in price towards the customers**

However, although an all-in price is used for the bundle of services, we believe that it is important that SDS make their customers aware of all the services and activities that are included in the price. This, in order to make the customers understand that SDS as a 4PL provider offers additional activities compared to a 3PL provider and, thus, that SDS's prices cannot be judged against those of the 3PL providers.

**9.2.2.2 A pricing matrix for internal use might facilitate the pricing process**

Although we do not agree with FreightMovement that some services should be charged for specifically, we do believe that a matrix that shows how different sub-services are priced, and that only will be visible for personnel at SDS, could facilitate the pricing process for SDS. Hence, although the customer faces an all-in price for a unique bundle of services, modular pricing could still be applicable for internal use.

We thus suggest that SDS should investigate how their different sub-services should be priced internally, so that the price for all those services that are included in a specific customer offering easily can be incorporated in the management fee.

FreightMovement categorizes their services with respect to what value that the services create for the customer. We believe, however, that the key to defining SDS's activities into suitable modules is not only whether the service is value-adding or not, but also whether that value is measurable. If the value is not measurable, a value-based method will not be applicable anyway. Thus, in order to create a pricing matrix, SDS must evaluate the customer perspective, and firstly, investigate what services that are value-added, and if they are, determine whether that value is measurable. For all other services that do not meet the previous criteria, a cost- or market -based pricing method is more suitable.

→ **Suggestion 5: Investigate the possibility to create a pricing matrix for internal use**

**9.2.2.3. Start-up services could possibly be charged for specifically**

Today, SDS does not conduct pre-studies of new customers' organizations before beginning the implementation process. For this reason, the implementation can sometimes take longer than expected. To avoid this, and to make the implementation process run smoother, we suggest introducing pre-studies before carrying out the actual implementation. If a pre-study is conducted, SDS will be able to define processes in advance and investigate in detail what resources that will be needed in order for the implementation to be successful. After the pre-study, SDS will also be able to estimate more accurately how long the implementation process will take. Another advantage

with pre-studies is that the customer will know beforehand what they will have to contribute with in the process, e.g. a project leader, someone responsible for the IT-integration.

→ **Suggestion 6: Introduce pre-studies in order to make implementation smoother**

Start-up services differentiate from the rest of the services offered by SDS, since these are only executed once. It could thus be argued whether such services should be included in the all-in price or if they should be charged for specifically. FreightMovement, for instance, charges for pre-studies either by the hour or with a fixed price. If SDS decides to charge for pre-studies specifically, we suggest that these should be charged with a fixed price based on SDS's costs for carrying out the service. The reason for suggesting a fixed price is that we believe that a new customer probably values to know the costs beforehand since no trust yet has been built up between the customer and SDS. A variable price might, on the other hand, be perceived as more "risky". The reason for suggesting a cost-based price is that we believe that the value of a pre-study will be difficult to measure. That value will rather materialize continuously throughout the relationship.

Regarding the implementation, this could potentially also be charged for specifically. However, since the customer has to commit some resources of its own for the implementation, we believe that it would be difficult to charge for the entire implementation process. Instead, we suggest that the customer should pay a pre-determined percentage of the implementation cost. It could be argued that the higher risk SDS takes, the more of the implementation cost should be shared between SDS and the customer. However, in order to be able to measure the costs for implementation, SDS must begin to register the amount of hours spent on the project. Obviously, costs for IT-systems and EDI must also be included when measuring the costs.

→ **Suggestion 7: Investigate the possibility to use "cost-sharing" for the implementation process**

According to the theory, sharing of risks is important in building strong relationships. The costs incurred for SDS when implementing a new customer account, is for example a risk. We therefore suggest splitting some of the implementation costs between SDS and the customer since this would be in line with building a long-term relation.

However, to keep the existing set-up and split the implementation costs on all existing customer accounts by including it in the management fee could have the advantage that the customer believes that SDS conducts implementation "for free". This could potentially be an important argument in the negotiation process with potential customers.



## 10. Conclusion

---

*The purpose of this thesis has been to create knowledge about different pricing methods and, based on the findings, discuss potential pricing methods for SDS. In order to do so, an analysis of how certain service characteristics can interplay with the pricing method and generate different effects, has been made.*

---

In the following paragraphs, each problem statement will be addressed individually.

### 10.1 The most common pricing methods covering the third- and fourth party logistics in research

There seems to be no consensus in the logistics research when a certain type of pricing method should be used. There is, however, a predominance of research concerning cost-based pricing methods. This is also reflected on a global scale, as cost-based contracts and transaction-based fees are becoming increasingly utilized. Performance-based contracts have also increased in usage, whereas risk/reward-sharing agreements, such as gain-sharing, have decreased. Prerequisites for such contracts are that the service outcome must be easy to define, measurable and possible to transform into monetary payouts. Issues regarding the identification of suitable metrics, or difficulties in measuring the same are brought up as key concerns. Research concerning value-based pricing for the logistics services industry is rare. It is, however, a suggested field for further research.

In order to create the optimal contract design, some authors argue for a combination of pricing methods in order to transfer risk and to create incentives. Examples of two such pricing methods that have been discussed within logistics research are cost-plus management fee and cost-plus incentive fee. Cost-plus management fee is composed of a fixed fee that corresponds to the provider's cost for managing the project, and a variable fee that reimburses the provider with all costs incurred by the same. That is, the risk is born by the customer, but the structure can encourage the provider to improve management efficiency. Cost-plus incentive fee, on the other hand, gives the provider right to a share of the savings if the pre-agreed budget for a specific project is underrun. The risk is born by the customer, but the provider will manage it. Efficient risk management is ensured by the incentives that are incorporate in the pricing method.

### 10.2 Pricing methods at SDS

Today, SDS uses cost-plus pricing for its services and the customers are charged per transaction, i.e. per transport. However, a management fee is also added to the transportation cost when setting the price. This fee covers the costs for transportation management and control towers, IT-systems, supply chain design and optimization etc, as well as a profit margin.

When SDS is bound by the contract towards the carriers, the risk that the carrier may not fulfil its commitment is born by SDS. This is accounted for by adding a premium to the price. However, SDS is also exposed to risk in terms of external factors, such as fluctuating exchange rates, changes in fuel price etc. When the external factors are incorporated in the customer price, by adding them as risk factors, SDS bears the risk. When the external factors are not incorporated, the customer will get charged for cost increases above a certain interval. Hence, the risk is shared between SDS and the customer.

Most interviewees agree upon that the cost-plus pricing method does not reflect the services offered by SDS particularly well. Instead, they believe that SDS ideally should charge for the value created from their services. According to the interviewees, SDS creates value by for instance offering *one* single contact, a dedicated division, high quality services, competitive prices (due to a large carrier base) and by making sure that their promises towards the customers are kept.

According to our analysis of pricing methods, cost-based pricing results in a low motivation for the provider to perform in the customer's best interest. Moreover, since the provider's contractual incentive to perform is low, cost-based contracts do not ascertain that the customer's goals are achieved. Hence, no incentives are created from SDS pricing methods.

### **10.3 Pricing methods that functional substitutes use**

Companies within the below mentioned industries will pose a threat to SDS if they grow strong enough to become a competitive alternative to SDS's services. It is therefore important to investigate how they price their offerings.

In general, cost-plus contracts transfer the risk to the customer, while a fixed-price or an outcome-based agreement transfers the risk to the provider. The provider's motivation to perform is high for outcome-based contracts, whereas no such incentives are created for a fixed price or cost-plus.

#### **Supply Chain Consulting**

Cost-based pricing or customer perceived value pricing is used, however value-based pricing is believed to be the ideal pricing method for both companies. SCM Consulting mentions that their counterpart on the customer side is usually a logistics manager who cares less about value and more about cutting costs. It is therefore difficult to price according to the customer perceived value. Cost-plus is believed to be industry standard.

Both companies charge for consulting either with a fixed price or with running price per hour. SCM Consulting has noticed that customers with a low turnover are more likely to ask for a fixed price. It is suggested that this is due to the fact that their financial situation cannot bear considerable cost variations and, hence, they value the certainty of knowing the exact price beforehand. A fixed price can be beneficial for the consulting firm if the project is standardized and easy to specify in advance. In that case, the project can be executed quickly and the consulting firm can reap the benefit of not having to declare the amount of hours spent on the project.

#### **Information & Technology**

IT-1 prices its services based on the generated value, while IT-2 uses a market-based pricing method. Based on the cross-case analysis, this difference could be explained by the fact that IT-1 offers significantly more customized and complex services than IT-2. IT-2 believes that a market-based pricing method is industry standard for the same kind of standardized modules that they offer. IT-1, on the other and, only mentions that a yearly fixed price is industry standard for more customized IT-solutions.

Historically, both companies charged their services with a fixed price per year, however, a trend towards transaction-based pricing is noted. The most prominent advantages with a transaction-based payment principle is that it is more profitable than charging a yearly fixed price. The reason why it is more profitable might be that a transaction-based pricing method better reflects how much the customer uses the service. The finding is interesting considering that the companies actually take a smaller risk when they use a variable payment principle as opposed to a fixed price. Another advantage

with a variable pricing is that it creates a more even cash-flow, which in turn affects where in the customer's organization the decision about purchasing the service can be made. For instance, an invoice that is sent once a month with a smaller amount can usually be approved on a lower level than an invoice that is sent once a year and that has accumulated the cost over the year.

### **Freight-Bill Auditing**

The company that participated in the case study uses two different approaches when calculating the price for their services. Both approaches are, however, derived from a cost-plus logic. For low volume customers, or standardized services, a set price per transaction is used. This price is partly determined by cost and partly by what the market is willing to pay. For high volume customers, or customized services, on the other hand, a unique price per transaction is calculated for every agreement. The starting-point for the calculation is to add 50% on direct costs. In the event that configuration is needed, this seems to be charged by the hour. Overall, pricing within the industry is ad-hoc.

### **Tendering and Freight Procurement**

Gain-sharing is considered to be industry standard for freight procurement projects. The service is very straightforward and the savings can easily be measured, therefore gain-sharing contracts are appropriate for freight procurement.

A drawback with gain-sharing from the service provider's perspective is that there is always a risk involved in estimating potential savings. Similarly, there is also a risk that the customer does not choose to implement the full range of improvements that can be made. An advantage that was mentioned is that the pricing method is easy to understand for the customers.

### **General patterns across industries**

In the cross-case analysis, no distinct pattern was found regarding a specific pricing method and the nature of the relationship with customers, nor was any convergent pattern found for a specific pricing method and the scope of the relationship with customers. However, regarding degree of complexity, degree of customization, and the ease of specifying the service in advance, some patterns were identified.

Companies that provide services that are complex and customized either used customer perceived value pricing, increasingly wanted to do so or indicated that it would be the ideal pricing method. Similar findings were observed for companies that offer services that are difficult to specify in advance, however, the result was not as evident as for the two previously mentioned service characteristics.

Companies that were ranked as standardized, simple and easy to specify in advance used a market-based pricing method (or cost-based where the price level was influenced by the market). We suggest that the reason why is that the alternatives on the market are easier to compare when the service is described by the abovementioned characteristics, whereby companies are forced to price according to the market. Overall, the most widely used pricing method among the case companies was cost-plus pricing.

A variable price or a combination of a variable and a fixed price, i.e. mixed, seemed to be the payment principle that was preferred among the case companies. IT-1 and IT-2 mentioned that a mixed price is more profitable. However, whether that is true for companies that do not operate in the IT-industry remains unclear. When a variable or a mixed price is used, the risk is shifted to the customer. It is suggested that this is the reason to why most companies seemed to prefer such a payment principle. A fixed price,

on the other hand, seemed to be a common way of primarily pricing add-on services or start-up/implementation. The companies that did use such a pricing method for their main service mentioned that it is not optimal, and that they were trying to use it as little as possible.

Another pattern that was found in the research was that companies that offer services that are more customized and difficult to specify in advance, to a greater extent used different pricing methods for their services. Companies that were rated as standardized and easy to specify, on the other hand, tended to just have one pricing method for all customer segments.

#### **10.4 Reflections on suitable pricing methods and suggestions for further research at SDS**

The cross-case analysis showed that companies that offer services that are complex and customized, favour a value-based pricing method. Since SDS's service possesses these characteristics, the potential for SDS of using such pricing methods has been discussed. We have concluded that, in order to evaluate the feasibility of customer perceived value pricing, SDS must evaluate the customer perspective. More specifically, SDS must be able to recognize how value is created through their services, and also *how to calculate* this value.

Another point that was highlighted was the importance of communicating the value that a 4PL creates to the customer. This, in order to differentiate the 4PL providers from the 3PL providers. It was suggested that value-based pricing methods would serve that purpose. However, customer's perceived value is difficult to measure and, in fact, no research was found regarding how the customer's perceived value specifically can be measured for logistics services. We therefore suggest that if SDS finds such an approach difficult, other methods that are more established within the industry, such as gain-sharing or performance-based, should be considered.

We also suggest that SDS should continue to use an all-in price towards their customers. Firstly, we believe that many of SDS's customers value an all-in price, not only due to simpler administration but also due to the fact that the customer will know the price beforehand. Secondly, to charge for some sub-services specifically could pose a risk, since it becomes easier for the customer to compare SDS's prices with the rest of the market, not least with functional substitutes.

For *internal use*, however, we suggest that SDS should standardize how different sub-services are priced since this would facilitate the pricing process. However, how each specific activity of SDS should be priced remains unclear. The customer perspective must be investigated in order to develop such a model.

Another possible area of investigation is to explore whether the implementation could be charged for specifically. In line with the previous discussion about communicating value, we suggest an approach where the costs for the implementation is shared, i.e. the customer commits to pay for a certain percentage of the total cost for implementation. A prerequisite for such a set-up is, however, that the costs incurred for the implementation can easily be isolated.

Finally, we propose that SDS should consider introducing pre-studies in order to make the following implementation run smoother.

## **10.6 Suggestions for further academic research**

The scarce share of research that has been conducted within the field of pricing of services concerns specific industry domains and, thus, almost no research has investigated whether there is a common thread across industries<sup>167</sup>. We have, however, studied the pricing issue from a holistic perspective, whereby we have investigated whether there are convergent pricing patterns between industries that in one way or another are linked to the 4PL industry. Patterns regarding the ease of specifying the service, the degree of the complexity and the degree of customization were found. Since this research was qualitative, a next step and an area for further research would be to investigate whether the same patterns occur in a larger sample of companies.

---

<sup>167</sup> Ng (2008), p.13



## Bibliography

About SDS. (2009-05-11). Retrieved 2011-01-25 from [www.schenkerds.se](http://www.schenkerds.se):  
<http://www.schenkerds.se/servlet/se.ementor.econgero.servlet.presentation.Main?data.node.id=25545&data.language.id=2>

Agrawal, R., Varma, S., & Ludhwani, J. (2010). *Transaction Based Pricing in BPO: In Tune with Changing Times*. Mumbai: TATA Consultancy Services.

Ambruster, W. (2002). Third-party logistics producers are well-established; now lead logistics providers are springing up to manage them. *Journal of Commerce, JoC WEEK*.

Arbner, I., & Bjerke, B. (1997). *Methodology for Creating Business Knowledge* (2nd ed.). California: Sage Publications.

Avlonitis, G. J., & Indounas, K. A. (2007). Service pricing: An empirical investigation. *Journal of Retailing and Consumer Services, 14*, 83-94.

Avlonitis, G., & Indounas, K. (2007). An empirical examination of the pricing policies and their antecedents in the services sector. *European Journal of Marketing, 41* (7/8), 740-764.

Avlonitis, G., & Indounas, K. (2006). How are prices set? An exploratory investigation in the Greek services sector. *Journal of Product & Brand management, 15* (3), 203-212.

Avlonitis, G., & Indounas, K. (2005 A). Pricing of services: An empirical analysis from the greek service sectors. *Journal of Marketing Management, 21*, 339-362.

Avlonitis, G., Indounas, K., & Avlonitis, G. (2005 B). Pricing objectives and pricing methods in the services sector. *Journal of Services Marketing, 19* (1), 47-57.

Axelsson, B., & Wynstra, F. (2002). *Buying Business Services* (1st ed.). Chichester: John Wiley and Sons Ltd.

Baida, Z., Akkermans, H., & Gordjin, J. (n.a.). *Service classification versus configuration*. Retrieved 2011 йил 10-03 from [subs.emis.de/LNI/Proceedings/Proceedings68/GI-Proceedings.68-95.pdf](http://subs.emis.de/LNI/Proceedings/Proceedings68/GI-Proceedings.68-95.pdf)

Berends, K. (2000). Cost-plus incentive fee contracting - Experiences and structuring. *International Journal of Project Management, 18*, 165-171.

Björklund, M., & Paulsson, U. (2009). *Seminarieboken - att skriva, presentera och opponera*. Lund: Studentlitteratur AB.

Bowersox, D. (1990). The Strategic Benefits of Logistics Alliances. *Harvard Business Review, 68* (4), 36-45.

Business concept. (2009 йил 27-10). Retrieved 2011 йил 26-1 from [www.schenkerds.se](http://www.schenkerds.se):  
<http://www.schenkerds.se/servlet/se.ementor.econgero.servlet.presentation.Main?data.node.id=25548&data.language.id=2>

- Chopra, S., & Meindl, P. (2004). *Supply Chain Management - Strategy, Planning and Operations* (2nd ed.). Upper Saddle River, New Jersey: Pearson International Edition, Prentice Hall.
- Chopra, S., & Meindl, P. (2002). *Supply chain management, Strategy, Planning and Operations* (2nd ed.). New Jersey: Pearson Prentice Hall.
- Churchill, G. (1995). *Marketing Research: Methodological Foundations* (6th ed.). Fort Worth, TX: The Dryden Press.
- Cunningham, L., Young, C., Ulaga, W., & Lee, M. (2004). Consumer views of service classification in the USA and France. *Journal of Services Marketing* , 421-432.
- Denscombe, M. (2009). *Forskningshandboken - för småskaliga forskningsprojekt inom samhällsvetenskaperna*. Lund: Studentlitteratur.
- DePoy, E., & Gitlin, L. N. (1999). *Forskning - en introduktion*. Lund: Studentlitteratur.
- Docters, R., Reopel, M., Sun, J.-M., & Tanny, S. (2004). Capturing the Unique Value of Services: Why Pricing of Services is Different. *Journal of Business Strategy* , 25 (2), 23-28.
- Dyer, J., & Singh, H. The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review* , 23, 660-679.
- Eckert, J., Ertogrul, D., Papageorgiou, A., Repp, N., & Steinmetz, R. (2009). The impact of service pricing models on service selection. *Fourth international conference on internet and web applications and services*.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review* , 14 (4), 532-550.
- Ellram, L. (1996). The Use of Case Study Research in Logistics Research. *Journal of Business Logistics* , 17 (2), 93-138.
- Fearon, H. E., Dobler, D. W., & Killen, K. H. (1992). *The Purchasing Handbook* (5th ed.). United States of America: McGraw-Hill.
- Fernie, J. (1999). Outsourcing Distribution in U.K. Retailing. *Journal of Business Logistics* , 20 (2), 83-96.
- Forbis, J., & Mehta, N. (1981). Value-based strategies for industrial products. *Business Horizons* , 24 (May-June), 32-42.
- Gammelgaard, B. (2004). Schools in logistics research? A methodological framework for analysis of the discipline. *International Journal of Physical Distribution and Logistics Management* , 34 (6), 471-491.
- Halldorsson, A., & Skjoett-Larsen, T. (2006). Dynamics of Relationship Governance in TPL Arrangements: A Dyadic Perspective. *International Journal of Physical Distribution & Logistics Management* , 36 (7), 490-506.
- Hilletofth, P., & Hilmola, O.-P. (2010). Role of logistics outsourcing on supply chain strategy. *Strategic outsourcing: An International Journal* , 3 (1), 46-61.
- Hinterhuber, A. (2008). Customer value-based pricing strategies: why companies resist. *Journal of Business Strategy* , 29 (4), 41-50.

- Hinterhuber, A. (2004). Towards value-based pricing - An integrative framework for decision making. *Industrial Marketing Management*, 33, 765-778.
- Hoekman, B., & Mattoo, A. (2008). *Services Trade and Growth*. The World Bank.
- Johnson, G., Scholes, K., & Whittington, R. (2008). *Exploring Corporate Strategy* (8th ed.). Harlow, England: Pearson Education Limited.
- Kim, S.-H., Cohen, M., & Netessine, S. (2007). Performance Contracting in After-Sales Service Supply Chains. *Management Science*, 53 (12), 1843-1858.
- Kovács, G., & M. Spens, K. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management*, 35 (2).
- Krugman, P., & Obstfeld, M. (2003). *International Economics - Theory and Policy* (6th ed.). Boston: Pearson Education.
- Lambert, D. M., Emmelhainz, M. A., & Gardner, J. T. (1999). Building successful logistics partnerships. *Journal of business logistics*, 20 (1), 165-181.
- Li, C.-L., & Kouvelis, P. (1999). Flexible and risk-sharing supply contracts under price uncertainty. *Management Science*, 45 (10), 1378-1398.
- Liu, Sun, & Tian. (2007). *Incentive Contract Design to Improve the Service Quality in Third Party Logistics: a Moral Hazard Model*. Retrieved 2011 йил 16-02 from IEEE: <http://ieeexplore.ieee.org/ludwig/lub.lu.se/stampPDF/getPDF.jsp?tp=&arnumber=04340951&isnumber=4339775&tag=1>
- Logan, M. (2000). Using Agency Theory to Design Successful Outsourcing Relationships. *International Journal of Logistics Management*, 11 (2), 21-32.
- Lovelock, C., & Wirtz, J. (2001). *Services marketing: People, Technology, Strategy* (5th ed.). Prentice-Hall.
- Lukassen, P. J., & Wallenburg, C. M. (2010). Pricing Third-Party Logistics Services: Integrating Insights from the Logistics and Industrial Services Literature. *Transportation Journal*, Spring.
- Lundén, B. (2008). *Prissättning, praktisk handbok*. Elanders AB.
- Lynch, C. F. (2000). *Logistics Outsourcing*. Council of Logistics Management.
- Macaulay, S. (1963). Non-contractual relations in business: a preliminary study. *American Sociological review*, 28, 55-69.
- Maltz, A. B., & Ellram, L. M. (1997). Total Cost of Relationship: An Analytical Framework for the Logistics Outsourcing Decision. *Journal of Business Logistics*, 18 (1), 45-66.
- Miriyala, K., Gurbaxani, V., & Xavier, S. J. (2006). *Transaction-based pricing model for outsourcing: Why and When*. iGate Global Solutions.
- Mitra, K., & Capella, L. M. (1997). Strategic pricing differentiation in services: a re-examination. *The journal of services marketing*, 11 (5), 329-342.
- Monroe, K. (2002). *Pricing -making profitable decisions* (3rd ed.). New York: McGrawHill.
- Ng, I. C. (2008). *The pricing and revenue management of services*. Routledge.

- Norrman, A. (2008). Supply chain risk-sharing contracts from a buyers perspective: content and experiences. *International Journal of Procurement Management*, 1 (4), 371-393.
- Patel, L., & Davidsson, B. (1994). *Forskningsmetodikens grunder*. Lund: Studentlitteratur.
- Persson, G. (1982). Materialadministrativ metod - några synpunkter. *Scandinavian Journal of materials administration, Business logistics*, 8 (3).
- Poppo, L., & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, 23 (8), 707-725.
- Potter, D. (2000). Discovering hidden pricing power. *Business Horizons*, 43 (6), 41-48.
- Richardson, H. L. (1993). Contracts Build Relationships. *Transportation & Distribution*, 31 (11), 53-55.
- Roth, S., Woratschek, H., & Pastowski, S. (2006). Negotiating pricing for customized services. *Journal of service research*, 8 (4), 316-329.
- Rushton, A., & Walker, S. (2007). *International logistics and supply chain outsourcing*. The chartered institute of Logistics and Transport (UK).
- Schlissel, M. R., & Chasin, J. (1991). Pricing of Services: An Interdisciplinary Review. *Service Industries Journal*, 11 (3), 271-286.
- SDS. (n.d.). Company Presentation.
- SDS meets the customers' demands*. (n.d.). Retrieved 2011 йил 25-1 from [www.schenkerds.se](http://www.schenkerds.se):  
<http://www.schenkerds.se/servlet/se.ementor.econgero.servlet.presentation.Main?data.node.id=9385&data.language.id=2&data.document.id=18490>
- Selviaridis, K., & Spring, M. (2007). Third-party logistics: a literature review and research agenda. *The international journal of logistics management*, 18 (1), 125-150.
- Shipley, D., & Jobber, D. (2001). Integrative pricing via the pricing wheel. *Industrial Marketing Management*, 30, 301-314.
- Skjoett-Larsen, T., Halldórsson, Á., Andersson, D., Dreyer, H., Virum, H., & Ojala, L. (2003). Third-party logistics: a nordic research approach. In T. Skjoett-Larsen, & Á. Halldórsson, *Dynamics of relationship governance in TPL arrangements: a dyadic perspective* (pp. 135-153). Turku, Finland: Turun Kauppakorkeakoulun Julkaisuja.
- Sols, A., Nowick, D., & Verma, D. (2007). Defining the fundamental framework of an effective performance-based logistics (PBL) contract. *Engineering Management Journal*, 19 (2), 40-50.
- Stole, L. A. (2003). *Price Discrimination and Imperfect Competition*. University of Chicago, Chicago.
- Svenning, C. (2003). *Metodboken* (5th ed.). Eslöv: Lorentz.
- Tellis, W. (1997). Introduction to case study [68 paragraphs]. *The Qualitative Report [On-line serial]*, Available: <http://www.nova.edu/ssss/QR/QR3-2/tellis1.html>, 3 (2).

- Thompson, K. N., & Coe, B. J. (1997). Gaining sustainable competitive advantage through strategic pricing: selecting a perceived value price. *Pricing strategy & practice*, 5 (2), 70-79.
- Thomson, J. B., & Anderson, J. C. (2000). Pursuing risk-sharing, gain-sharing arrangements. *Marketing Management*, 9 (2), 40-47.
- Wallén, G. (1996). *Vetenskapsteori och forskningsmetodik*. Lund: Studentlitteratur.
- Walton, C. (2010 йил 07-12). 3PL versus 4PL. *Motor Transport*.
- van Hoek, R. (2000). The Purchasing and Control of Supplementary Third-Party Logistics Services. *Journal of Supply Chain Management*, 36 (4), 14-26.
- van Weele, A. (1996). *Purchasing & Supply Chain Management, Analysis, Strategy, Planning & Practice* (4th ed.). Thomson.
- Win, A. (2008). The value a 4PL provider can contribute to an organisation. *International journal of physical distribution & logistics management*, 38 (9), 674-684.
- Yin, R. K. (1994). *Case Study Reaseach: Design and Methods* (4th ed.). California: Sage Publications.



## Appendix 1 – Operational, Tactical and Strategic activities at SDS

### Freight management activities

Operational activities	Tactical activities	Strategic activities
<ul style="list-style-type: none"> <li>■ Transport booking</li> <li>■ EDI flow monitoring</li> <li>■ Managing incorrect EDI file contents</li> <li>■ Transport flow monitoring</li> <li>■ Special requirement handling</li> <li>■ Deviation and Errand handling</li> <li>■ Logging and follow-up</li> <li>■ Securing capacity</li> <li>■ Alternate routings in case of force majeure</li> <li>■ Coordinating effects of driving bans</li> <li>■ Both planned and unplanned events</li> <li>■ Inform parties involved in case of deviations</li> <li>■ Claims handling</li> <li>■ Consolidated invoicing</li> <li>■ (Return shipment management)</li> <li>■ Proactive intervention</li> <li>■ Minimizing effects of disturbing events</li> </ul>	<ul style="list-style-type: none"> <li>■ Supplier assessments</li> <li>■ Planning and scheduling lead times</li> <li>■ Coordinating departure and arrival times</li> <li>■ Actively seeking alternate transporters</li> <li>■ Actively seeking to improve Quality and to reduce Environmental impact</li> <li>■ Analysis of errand statistics in the system and finding solutions</li> <li>■ Self assessments to find continuous improvements</li> <li>■ Propose common process improvements</li> <li>■ Proposing new loading and transport techniques</li> </ul>	<ul style="list-style-type: none"> <li>■ Supply chain evaluation and reengineering</li> <li>■ Environmental impact simulations</li> <li>■ Supply Chain distribution IT development</li> <li>■ Acting the speaking partner to improve the competitive edge</li> </ul>

## Appendix 2 - Case study protocol

### Purpose of the case study

The purpose of this case study is to investigate what pricing methods that are used by the case study objects, i.e. companies that act as functional substitutes. The reason for using this pricing method, and the advantages and disadvantages with the pricing method used will be discussed in detail with the respondents. Moreover, the effects created from using each method will be examined.

Different parameters that might influence the choice of pricing method have been identified using literature and information from discussions with researchers and personnel at SDS. The parameters that will be examined more closely in this case study are listed in table X below.

The potential case objects were identified in discussion with SDS. These companies will however not be listed by name, since information regarding pricing often is seen as somewhat sensitive. Instead, the case objects will be referred to as Company A, Company B etc. Nevertheless, the industry in which the companies operate will be included.

<b>Service characteristics</b>	<b>Explanation</b>
Ease of specifying service	High / Low
Complexity of service	High (Complex) / Low (Simple)
Degree of standardization	Standardized / Non-standardized
Type of relationship	Long-term / Short-term
Scope of relationship	Extensive (many activities) / Few activities

*Table X. Parameters to consider that might influence the choice of pricing method*

### Interview questions

Respondent:

Name:

Company:

Job Title:

Main Responsibilities:

Years with Company:

### Service

- Could you briefly tell us about the company?
- What kind of services does the company offer?
  - o How would you describe the service in terms of:
    - Ease of specifying the service: Could you easily specify the services offered?

- On a scale from 1 to 7: how easy is it to specify the service? 1 = difficult, 7 = extremely easy  
1 2 3 4 5 6 7
- Complexity: Are the services offered simple or complex in character? Please explain.
  - On a scale from 1 to 7: what is the complexity of the service? 1 = very simple, 7 = very complex  
1 2 3 4 5 6 7
- Degree of standardization: Are the services offered standardized or customized? Please explain.
  - On a scale from 1 to 7: what is the degree of standardization? 1 = customized, 7 = standardized  
1 2 3 4 5 6 7

### **Pricing**

- How does the company price its services?
- Why did you choose to use this particular pricing method?
- What are the advantages and disadvantages with the pricing method that you are using?
- How well do you think this pricing method corresponds with the services offered?
- Have you discussed the possibility to apply other pricing methods?
  - *If Yes:* Why were those pricing methods excluded?
- What customer segments are you targeting?
- Do you use different pricing methods for different customers?
  - *If Yes:*
    - What is the reason for this and in what ways are these pricing methods different?
      - Do you use different pricing methods for different customers depending on the level of strategic importance of a specific customer?
- Have your customers asked for another pricing method than the one currently used?
  - Do you use different pricing methods for different offerings?

- *If Yes:* What is the reason for this and in what ways are these pricing methods different?
- Do you think your company's way of pricing is industry standard?
  - *If different from industry standard:*
    - In what ways is it different?
    - Why did you decide not to use the standard pricing method?
  - *If industry standard:* Why do you think this pricing method is commonly used in this industry?
- What factors do you take into consideration when you use the particular pricing method?

### **Contract mechanisms**

- Could you describe the company's relationship with its customers?
  - Is it long-term or short-term?
    - Different for different customers?
      - On a scale from 1 to 7: what is the relationship with your customers? 1 = short-term, 7 = long-term  
1 2 3 4 5 6 7
  - What is the scope of the relationship?
    - Extensive (i.e. the customer has placed a large extent of their own business with the company) or less extensive?
      - On a scale from 1 to 7: what is the scope of the relationship? 1 = not extensive, 7 = very extensive  
1 2 3 4 5 6 7
- Regarding contracts with customers: Are they transparent or not?
  - On a scale from 1 to 7: how transparent are the contracts? 1 = not transparent, 7 = very transparent  
1 2 3 4 5 6 7
  - *If transparent:* What are the benefits?
  - *If not transparent:* What are the benefits?

### Appendix 3 - List of interviewees that participated in the case studies

<b>Company</b>	<b>Title</b>	<b>Main responsibility</b>	<b>Years with company</b>	<b>Date of interview</b>
IT-1	Deputy CEO	In charge of total management	5	2011-04-04
IT-2	Sales manager and vice president	Product development	10	2011-04-05
Economy Supplier	Sales controller	Market co-ordinator	11	2011-04-07
SCM Consulting	CEO	In charge of total management	11	2011-04-06
FreightMovement	Business Development Manager	Business Development	14	2011-04-05
Transport Procurement	Logistics Consultant	Tender processes	19	2011-04-13

*Table A.1. List of interviewees that participated in the case studies*