

# Improving the supply chain management for car spare parts

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2012 Leppävaara

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# Improving the supply chain management for car spare parts Case: Simetron group

Rynty Polina Degree Programme In Business Management Bachelor's Thesis January, 2011 Laurea University of Applied SciencesAbstractLaurea LeppävaaraBachelor's Degree Programme in Business Management

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Car spare parts marketing research Case: Simetron Group

Year	2011	Pages	55

This researchwas carried out in spring 2011 in LaureaUniversity of Applied Sciences in collaboration with one of Finland's car companies Simetron. The company has been specialized since its establishment in 1997 in the import and retail of passenger and commercial vehicles. The automotive industry is a competitive sector, where competitiveness and profitability are affected by many factors, such as car sales, distribution, maintenance, and spare parts prices. The more a company is able to operate effectively in these marginal conditions, the stronger the competitive position it will have.

The main office of Simetron is located in Helsinki Herttoniemi and the company has a turnover of more than300 million euro and employs XXX people. Business operations began in 1997 with the import of Suzuki cars. Several years later business was expanded to cover car retail and in 2000 the distribution of Hyundai vehicles was started. The Simetron Group is part of the international Bassadone Automotive Group.

The purpose of this thesis was to research the logistical chain of the company. The marketing of car spare parts prices research was a foundation. During this project, a clear view of the demand and requirements of Simetron has been obtained. Furthermore, the intention was also to develop suggestions for improving the logistics supply chain for spare parts. This e purpose could be summarised as identifying the main competition car model and the composition of the spare part cost and determining if the price formation can be affected by improving the logistics chain.

If the companies can make relevant information available in an effective way they will have a more efficient supply chain and lower costs. The objectives of the thesis are to provide the company with recommendations for ways to reduce problems in the pricing of car spare parts through increased visibility in the supply chain, and also to estimate the impact of these solutions. The empirical results are evaluated as theoretical framework consisting of applicable supply chain theories.

Research information was collected by interviewing people considered important to the study, and in this respect qualitative research were used. This method was chosen for its usefulness sin facilitating the in-depth probing of personal opinions, beliefs, and values to provide rich and detailed information. It is also flexible and useful at uncovering hidden issues. The author was working in the company during this research process.

The results of the research have present different ways of saving costs. Furthermore, the task was to find problem areas or errors from logistical supply chain in order to improve the system. Suggested areas for improvement were presented in order to get a better match between the company's demand price and selling price.

Keywords logistics, supply chain efficiency, competitive, car spare parts

# **Table of Contents**

1	Intro	duction	4
	1.1	Purpose of the thesis	4
	1.2	Research method	5
	1.3	Case company brief	5
	1.4	Theoretical approach	6
	1.5	Framework of the thesis	6
2	Theo	retical background	6
	2.1	Supply chain management	6
		2.1.1 The Basic flow	7
	2.2	Value -Added role of Logistics	9
	2.3	Tactics	10
		2.3.1 Examples of push tactics	10
		2.3.2 Examples of pull tactics	11
		2.3.3 Supplier selection	11
		2.3.4 Types of suppliers	12
	2.4	Logistics channel	10
	2.5	The just-in-time Approach	14
	2.6	Two-bin point system	15
	2.7	Outbound logistics system in supply chain	15
	2.8	Techniques and examples of saving costs in supply chains	16
	2.9	Latest advances and propositions	17
	2.10	Sources of cost savings in supply chains	21
	2.11	Techniques that reduce costs	23
		2.11.1 Incoterm CIP	23
		2.11.2 LSP three broad steps	24
		2.11.3 Learn supply chain management techniques	24
		2.11.4 Study the supply chain management	24
		2.11.5 Plan performance	25
		2.11.6 Short statement of main points	25
		2.11.7 Summary of theoretical discussion	26
3	Resea	arch approach	26
	3.1	Research data	26
	3.2	Qualitative research	26
	3.3	Research methodology	27
	3.4	Validity and reliability of the study	28
4	Empi	rical data	28
	4.1	Case Simetron Group Ltd.	28
	4.2	Hyundai Motor Company	30

	4.3	Suzuki Motor Corporation 31		
	4.4	Company history 3		
		4.4.1	SWOT analysis	32
	4.5	Supplie	er	33
		4.5.1	Mobis	33
		4.5.2	Retailer	35
		4.5.3	Containers and insurance	35
	4.6	Custom	ner Complaint Handling	35
5	Contr	acts		36
	5.1	Car sho	wroom, which combines the sales and parts	36
	5.2	Europe	Customs	36
	5.3	Compa	ny order	37
		5.3.1	Warehouse program	37
6	Concl	lusion a	nd recommendations	37
7	Theo	retical l	inkage	. 38
8	Summ	nary		. 39
Refer	ences			40
List o	f figur	es		46
Appendices				

#### 1 Introduction

There are 800 industry clusters in the world and Me-Auto belongs to automotive cluster. Cluster is relatively close to the European market and in Finland Cluster has 42% of a market share. Company's main competitors are: Autokeskus oy, Autotalo Laakkonen and Delta auto. The automotive sector in Finland employs almost 30 000 people.

The automotive sector employed 27 300 employees in 2010. Employment in the sector has improved since 1995, except for the recession years 2008 and 2009.

Field staffs in the vast majority are engineers -45% and car sales staff -38%. Technical staff is less than 10 per cent and 7.5 per cent of senior officials. (AutoalaSuomessa)

In 2010 started the boom retirement in Finland. For automobile industry this fact has set the standards to secure the labor availability.

Making the logistical chain more efficient is the task of every company. Efficient logistics systems allow world businesses to take advantage of the fact that lands, and the people who occupy them, are not equally productive. Logistics is the very essence of trade. It contributes to a higher economic standard of living for all people.

To the individual firm operating in a high-level economy, good management of logistics activities is vital. Markets are often national or international in scope, whereas production may be concentrated at relatively few points. Logistics activities provide the bridge between production and market locations that are separated by time and distance.

Logistics is a collection of functional activities which are repeated many times throughout the channel through which raw materials are converted into finished products and consumer value is added. Because raw material sources, plants, and selling points are not typically located at the same places and the channel represents a sequence of manufacturing steps, logistics activities recur many times before a product arrives in the marketplace. Even then, logistics activities are repeated once again as used products are recycled upstream in the logistics channel.

#### 1.1 Purpose of the thesis

This thesis will present several key plans of potential cost savings in supply chains and classify a general approach for achievement of supply chain cost savings. The main objective is to find savings. Percentagewise, even small achievements in cost saving efforts represent substantial sums of money. This would improve on different levels the supply chain, also making it secure and fluency worth pursuing. To support this research would include suppliers, buyers ,purchases, inventories transportation and other services, and all costs and cycle times throughout the chain.

The suggested cost savings in supply chain will provide the Simetron Group coordinated and enduring solutions that save money .This paper reflects the concept design of the development project.

The study questions will be: how to reduce car spare parts price problems by increased visibility in the supply chain and also to estimate the impact of these solutions; also how Hyundai prices accommodated in marketing research.

The main question that needs to be answered in this thesis is: can the price formation be affected by improving the logistics chain? How to affect reasonably the logistical channel?

The purpose of this thesis work is to analyze, optimize and investigate car spare parts prices and logistics chain. Furthermore, the intention was also to improve spare parts logistics supply chain. The purpose shall be concluded with following three bullets; identifying the main competition car model for Hyundai and competitors spare part cost composition in tables. There will be suggested different types of improving be logistics chain.

Competitors for Hyundai are going to be KIA, Toyota, Lexus, Ford, Suzuki, and Isuzu.

Tables with the competitor's prices will present the market place for Hyundai.

The theoretical background will match the abovementioned research, and that can help to answer thesis question. It is significant to realize who influences the whole situation in the logistical pipeline and why this information is important and how it can be used.

#### 1.2 Research method

The method was conducted as an action study. Information was gathered by interviewing Simetron personnel in several meetings, while working in the company. The research method was evaluative.

#### 1.3 Case company brief

Simetron Group has been specialized since its establishment in 1997. The company imports and retails passenger and commercial vehicles. Operations started in late 1990's from importing the Suzuki cars and in 1999 the expanded to cover also car retail . In the beginning of a century, the long-waited distribution of Hyundai vehicles started. In 2007 a new brand, Isuzu pick-ups, were added to distribution program. Finland and Baltic States are the main distribution areas for described cars. However, Simetron Group is part of international Bassadone Automotive Group.

Distribution companies are Suzuki Motor Finland Oy, Hyundai Motor Finland Oy and Isuzu Motor Finland Oy.

All these three distribution companies have a representative office in Tallinn, Estonia, to take care of operations in Baltic area.

Part of the group, as a sister company, is also Nordic Automotive Services Oy, which started as Renault and Dacia importer in November 2010.

The car retail unit is ME-Auto Helsinki Oyo, which has three full-service dealerships in greater Helsinki area. All these three dealerships are offering full customer service for Hyundai, Suzuki, Isuzu, Renault and Dacia customers. Dealerships are well located in Helsinki Herttoniemi, Vantaa Tikkurila and Espoo Suomenoja.

#### 1.4 Theoretical approach

It was decided that in this thesis inbound and outbound logistics will be described. Several important aspects of logistical system analysis engage the transfer, storage, handling, communication and other functions that contribute efficient flow of goods. Different types of costs will be highlighted. Picture 1 in 1.4 illustrates the framework of the thesis.

The first part of the thesis will introduce the automotive cluster of Finland and explains the purpose of the work. It also demonstrates the case company in brief.

The second part of thesis, the theoretical approach, will present the supply chain management .It contain the logistics pipeline with different stages, the basic flow and operation components. Warehouse program and costs will finally lead to the value-added role of logistics. Two different tactics push and pull will show why the supplier selection is a crucial in logistics. Multiple types of suppliers will be presented and compared. Finally two of the most important inbound logistical systems, JIT approach and Two Bin system provide an overview. In Outbound logistics section transit times will be presented, as the study company is mostly shipping goods; followed by the example of Chrysler Corporation.

#### 1.5 Framework of the thesis

The thesis will start by introduction, where purpose of the thesis and other basic information is briefly introduced. Theoretical background goes deeper in the study by explaining supply-chain management, logistic channel and JIT approach concerning Simetron Oy. Later in the research the approach itself is classified. Empirical data shows the concept of the company more profoundly. In the end the research data, outcome of the research and the possible future recommendation.

#### 2 Theoretical background

2.1 Supply chain management

Developments of the supply chain/logistics pipeline have evolved through several stages. During the 1980's and 1990's many external factors caused companies to develop viewpoint on the logistics processes. The main idea behind was, that the final buyer received the right product, at the right price, at the right period and condition.

This meant to include the vendors and channels of distribution.



Figure 1Logistics supply chain

There are 3 supply chain definitions presented:

- 1. The idea of how to manage the flow of a distribution channel from supplier to customer.
- 2. A strategic concept that involves managing the progression of activities-from supplier to customer.
- 3. Integrative management of the sequential flow logistical activities from vendors to customers necessary to produce product efficiently. (Coyle&Bardi,9)

# 2.1.1 The Basicflow

Cash, information and product are the three basic flows. Cash and information change and evolve constantly .For these two companies applies a number of logistics strategies for precise product lines .A strategy can define the service levels at which its logistics organization levels is at most cost effective. The impact of imminent changes are being analyzed and identified by the company, also the organizational changes to ensure service levels are not reduced.

There are four levels of the development of the logistical strategy can be started with.

The first one is the strategic level; there should be examined company's supply chain results. Review of the decision how the logistics organization contributes to advanced purposes.

The second one is the structural; the issues should be obtained, such as the ideal number of stores and distribution centers.

The second last strategy is functional and it usually evaluates how each function in the logistics organization completes functional quality.

The last strategy is called implementation. The development of a change management plan and the introduction of new policies. It contains configuration of company's whole information system.

# 2.1.1.1 Operation components

In the four levels below, the operation components should be examined to establish whether any potential cost benefits can be achieved. Questions in several areas have risen. For the transportation and the outsourcing levels would a partnership with a possible third company improve service levels?

Do the existing transportation strategies benefit the service levels? What outsourcing is used in the logistics function? Is the right data provided in the logistics system?

Will the customer service changes improve levels in competitor's area?

Is the logistics information updated and precise in the information area?

Are the logistical objectives of the organization coordinated with corporation's strategies in strategy area? All above mentioned strategy question are important for the company to save service levels at the main levels possible despite sudden changes in the supply chain.

(Creating a logistics strategy)

suppliers manufactures wholesalers retailers consumers	
informationflows	
productflow	
cashflow	

Figure 3 Flow

The development of the supply chain perspective is a logical extension of several stages-physical distribution management and integrated logistics management. Essence of the supply chain is the integrated management of the sequential flow of materials and associated activities from vendors through to the customer.

The effective management requires certain key characteristics-pipeline coordination and flawless inventory, focus upon landed cost to customer, sharing information and risk, planning based on the upon a supply chain team and strong alliances. (Coyle&Bardi 1996, 22)

(Coyleabardi 1990, 22)

Speed and quality in both product and logistics play a major role in the success of Simetron. The 14-yearold company broke into the ranks of TekniikanMaailma in 2010 when its revenues picked up to 300 million Euros. On time delivered products and the smooth flow of materials improved being critical in a competitive market.

#### 2.1.1.2 Warehouse programs

Whether around the block or around the world, moving products to and from warehouse is a dynamic process that demands more than basic efficiency. A warehouse management system gives the ability to make real-time adjustment anywhere in the delivery chain between the supplier and the customer not only allows to make cost-effective moves. Program it allows to deliver the right product to the right customer at the right time, at the right place, in the right condition. (Infor)

With an integrated system warehouse management can be simplified .These organizational systems are flexible enough to manage product changes as well. Within a few clicks and change in the database, the software is automated in seconds.

(Articlesbase)

# 2.1.1.3 Costs

Storage space cost covers the cost of moving goods into an out of inventory. This includes only the variable costs of rent, utilities and space. If company leases warehouse space on a per unit basis for seasonal inventory, then the cost is a storage space cost.

Inventory service cost includes insurance and taxes. Firms insure the goods they store. However, some insurance policies are written with the variable and fixed components in the premiums. The variable components should be included into an inventory service cost. Most countries have inventory taxes and the exceptions. These exceptions often exempt inventory that is not to be sold. Such free port warehouse laws create chances for inventory tax avoidance. For example firms may operate in Nevada USA, to serve the Californian market. Nevada has a free port warehouse law that helps firms avoid some California inventory taxes.

Ordering costs consist of order costs, setup costs or both. Ordering costs could include preparing and processing the order. Setup refers to modifying the manufacturing process. They include personnel costs and capital equipment costs. (Logistics 2002, 143-145)

#### 2.2 Value -Added role of Logistics

Four types of the economic utility add value to a product. Form utility refers to the value added to goods through a manufacturing, production or assembly process. To improve products saleability the objectives characteristics must be changed.

Place utility can be achieved by moving product from production to the demand point. Mail order companies make it easy for customers to shop whenever they want and then have their purchases delivered to them.

In time utility segment shows product's marketability by making it available at a convenient time. For example, a daily newspaper home delivered so that the customer has it available in the morning.

Possession utility creates the customer value tolerates easy transferring of a product's ownership. For example, various time payment, leasing, and credit purchase strategies can be important in making a product more attractive to a consumer. (Yahoo answers)



Figure 4 Fundamental utility creation in the economy

#### 2.3 Tactics

As considering strategic decisions relating to supply chain design Push/Pull view of supply chain is very useful. A push promotional marketing strategy is all about bringing the product directly to the customer. The main idea, is that the customer is aware of brand at the purchasing moment.

#### 2.3.1 Examples of pushtactics

- Trade show promotions to encourage retailer demand
- Direct selling to customers in showrooms
- Negotiation with retailers to stock your product
- Efficient supply chain allowing retailers an efficient supply
- Packaging design to encouragepurchase

#### Point of saledisplays

A pull strategy involves motivating customers to seek out your brand in an active process and depends on customer demand depends.

#### 2.3.2 Examples of pulltactics

- Advertising and mass media promotion
- Word of mouthreferrals
- Customerrelationship management
- Salespromotions and discounts

For example, the car factory Suzuki Europe accumulates parts to produce an engine for the car. Push process is the first process they begin with, but the process after is pull process, as manufacturer is predicting that the product will be accepted. The moment customer orders for the engine it will become pull process, in other words actual demand. In supply chain the orders are taken through internet and are known as "mail order supply chain".

(Push and pull strategies)



#### Figure 5Strategies

(Push and pull strategies)

#### 2.3.3 Supplier selection

The economic significance of the automobile industry lies both in its scale and the complexity of its direct and indirect links with many other industries. For this reason, the sector has received considerable attention, both by policy makers and by researchers. One area of particular focus is the local subcontracting arrangements of vehicle manufacturers because of the vertical pullovers these generate. In addition, a profusion of previous studies has paid significant attention to the effect of geographical economies and agglomeration economies on the supplier selection decision. (Discussion paper) The supplier role starts from point, as if there are decided on basic raw material from which the final products delivered. It is a great responsibility to select the right supplier for the quality material. Qualified supplier is something that every company needs to deliver the product among other competitors. The organisational objectives help to select a quality supplier by checking the company history, cost, financial state and methodological capability.

For instance, the company may look for how old the history is and how many clients its handling and if the client are satisfied of the service. The business idea behind all successfully finished products is to attract more customers and to concentrate the future of the product by focusing on the market share. The cost and the customer's satisfaction is the significant factor to select the supplier. The cost should be according to standards.

Just -in-time delivery convinces both the customer and final customer in supply chain.

#### 2.3.4 Types of suppliers

There should be considered all the available types in the search for the supplier: distributors, manufacturers, and foreign sources. When selecting different types of vendors numerous trade-offs should be weighed. For example, between price and delivery, goodwill and community relations and company's service.

#### 2.3.4.1 Local vs. National Suppliers

There are several natural advantages when buying from local suppliers. The most significant are listed below.

1. There is a significant shipment savings when the distance between companies is short.

2. Tax and political concerns are for the local vendors same as for the purchaser.

3. There are many possibilities for communication and service; shorter lead times, and exchanges.

4. National concerns may offer lower prices because of their ability to produce in mass quantities for large numbers of customers.

5. Technical assistance may be better from large firms that provide extensive research and development support. (Supplier selection and evaluation)

#### 2.3.4.2 Distributor vs. Direct

The company will often have to choose to buy straight from the distributor or manufacturer. Both options have their advantages and disadvantages. Manufacturers take large-quantity orders but offer much lower fees than distributor. This difference usually depends on the volume of business.

The reason for manufacture big order is that they find small-quantity purchases unprofitable. The expenses are involved and present an advantage for the company.

Depending on the product and company's business idea a distributor may offer lower prices on purchases of smaller quantities. For instance, the local firms are often able to provide better service than manufacturers, but distributors are able to ship quickly and handle rush orders. (Supplier selection and evaluation)

#### 2.3.4.3 BuyingfromDevelopingCountries

Possibilities should be explored, when a global company moves into a less-developed country. There is good chance that the multinational would be able to offer lower prices quickly. Later, when the supporting industry starts to develop, it becomes attractive to buyers of the supporting products. Business in developing countries may feature misunderstandings that have occurred in dealings.

A car as a symbol of "freedom", "status" and "power" has been criticized.

The demand for automobiles, in addition to its utility, has been induced by urban, economic and transportation policies directed towards selected social sectors - the middle classes - who in turn perceive the car as an essential tool for their social reproduction.

The same policies keep transit alternatives impractical. Consequently, there are important political obstacles to alternative, less auto-oriented urban transportation policies.

# 2.3.4.4 Single vs. Multiple Sourcing

Because of quantity discounts or low shipping rates, it may be more economical to concentrate purchases with a single supplier. The total amount needed may be too small to justify splitting the order among suppliers because it would increase per-unit handling and processing costs.

In most cases, however, the buyer who utilizes multiple suppliers has greater assurance of uninterrupted supply in the event of fire, flood, or strikes, which might disrupt the operations of a single plant. Multiple sourcing also stimulates competition among vendors in price, quality, delivery, and service. (Supplier selection and evaluation)

# 2.3.4.5 Supplier Evaluation Factors and the number of suppliers

The company often expresses the apprehension about how many suppliers to use and the source to distribute the business. Qualitative process is used to locate and determine suppliers. This process compares suppliers in terms to provide the desired quality, quantity, price, and service.

In the beginning most buyers split orders between two or three suppliers. Thus, a supplier who might be able to supply the desired quantity during the specified period, but could not supply this quantity on specified dates, would not be a satisfactory supplier. In purchasing, price is meaningless when considered in isolation from other factors. A price is good only if the item supplied has the desired quality and quantity and is accompanied by sufficient useful services. (Supplier selection and evaluation)

# 2.4 Logisticschannel



w=warenouse P=plant M=market Figure 6Links in a logistical system

Logistical system analysis engages the transfer, storage, handling, communication and other functions that contribute efficient flow of goods. There are two types of channels-simple or complex. In a simple channel the individual producer deals with the customer. The manufacture controls the logistical flow since the beginning.

The second channel is more challenging, as it presents the complex market with the retailers and warehouses. The control is difficult, because of the additional storage and cargo. In attempt to overcome these problems companies integrate vertically in order to control the product over several stages.

#### 2.5 The just-in-time Approach

This approach is very innovating and famous. The work-in-process goods and completely finished goods are considered to be ready for sale. Inventory represents one of the most important assets that most businesses possess, because the turnover of inventory represents one of the primary sources of revenue generation and subsequent earnings for the company's shareholders/owners. (Investopedia)

The phrase" just in time" suggests that inventories should be available when a company needs them. Ideally the product arrives in the exact time it's needed. There is no tolerance for late or early delivery. The concept for philosophy was first developed in 1970's by Toyota in Japan and had a different name-Kanab. It refers to the informative signboards attached to carts delivering small amounts of needed components and other materials to locations within Japanese plants.

There are four concepts that support the approach: No account register, frequent quantities Short lead times and no flaws. (Coyle &Bardi 1996, 88)

# 2.6 Two-bin point system

The approach operates in a similar manner to the simple, yet effective two-bin point system.; reordering parts, which often gets overlooked in intensity to computerize everything. The two-bin system works well for ordering everything from certain product inventory items to consumable supplies, including office products.

(Coyle & Bardi 1996, 88)

# 2.7 Outbound logistics system in supply chain



Figure 7Indicators of the supply

Outbound systems differ in range, importance and density along the supply chain. Inventory has a major role in outbound logistics systems. True costs can be recognized and measured which is really important in today's environment. Customer service is always related to the outbound systems. It is the link between logistics and marketing. If outbound logistics is not functioning well company will lose future sales, for customers not receiving the promised delivery.

Outbound logistics technologies include transportation, material handling, packaging, communications and information systems.

Transit times in order shipment extend from the moment the seller places the order upon the vehicle for movement until the buyer unloads it. To measure the shipment time is difficult and to decrease transit time seller must use a faster carrier.

An auto manufacturer might have its suppliers set up facilities in close to reduce transport costs. Obviously, a business success in developing competitive advantage depends not form its own value chain, but on its skills to manage the value system of which it is a part.

In the following example Chrysler Corporation established an integrated carriage system and order system to produce on time and dependable service for small shipments. This system is called Mopar and it provides next-day delivery to most dealers. Mopar makes over 80% of its deliveries at night and this efficient system has been a success, because the night deliveries reduce the delays normally produced by daytime traffic.

(Coyle & Bardi 1996, 116)



Figure 8 Outbound and inbound (Log Dynamics Lab)

#### 2.8 Techniques and examples of saving costs in supply chains

The crucial importance of logistics has developed 2 propositions. In the first one, the trend towards international and ultimately global scale for many manufacturers has happened because companies have been able to count on logistics as a key support activity.

Firms pursue bold international strategies in the knowledge that sourcing, materials and distribution could be bound by the logistics directors. An excellent logistics foundation is obligatory for success. The field of logistics for technique is the second proposition. Competitive strategies as Just-in-Time and quality management are at the edge.

(Cooper&Peters 1991,47)

Technology has revolutionized supply-chain design, management, and control. It has enabled a paradigm shift from inventory to information; from competition to collaboration; and from cost to value. Supply-chain partners now share product design and planning— often in real-time. Performance is frequently assessed using systems, rather than incremental measures. The terms supply chain and technology has become quotidian in boardrooms and the popular press. Companies representing nearly every Standard

Industrial Classification (SIC) code have implemented some form of supply-chain initiative, largely via new technology, with many reporting substantial cost savings. While technology promises supply-chain efficiency for those who embrace it, it also raises several concerns that must be addressed before its potential can be fully realized.

(Boone&Ganeshan2001,9)

It is estimated that web-based technologies would impact supply chains in the future. By developing a conceptual framework for organizations can materialize technologies in order to create competitive advantages suggests. In fact buyers and suppliers will improve their competitive position by incorporating new technology.

(Boone&Ganeshan2001, 3)

A common mistake for a company is to fail in teaching own employees to use the technology. Top management makes a judgment that technologies will be the podium of competition into the future and then makes big assets. The software is deployed to the sales force, but the potential value is not demonstrated. There is no training away from a paper manual. The use of the technology is not tied to any performance-based inducements.

By failing to make the firm's employees aware of how emerging technologies should be used and incanting them to use it, the firm loses an opportunity to improve its competitive position via these new technologies. (Boone & Ganesh an 2001, 14)

2.9 Latest advances and propositions

The B2B usually means B2B e-commerce, by using the Internet to facilitate business-to-business commerce promises many benefits, such as dramatic cost reductions and greater access to buyers and sellers. The potential efficiencies and savings is exactly why the B2B space has become so crowded so quickly. At last estimate there were over 1000 supply chain/logistics integration firms and anywhere from 700 to 1000 B2B marketplaces in existence. Supply chain management is predicated on stronger relationships between fewer partners while digital marketplaces foster a loose relationship between many partners.

Digital Supply Chain is the new solution that combines B2B marketplaces with the collaboration of competent supply chains.

While B2B marketplaces are improving transactional competence, customary supply-chain management has been reengineering processes to ease information exchanges between trading partners. In addition to automating and streamlining transactions, efficient supply-chain management ads "intelligence" to time and structures the transactions so there is a better match of the supply and demand for organizations. (Boone&Ganeshan2001, 31)

Many companies have already improved working capital efficiencies, by sharing information and collaborating with supply-chain partners in real-time. For example, in the consumer products industry,

several firms have initiated "vendor-managed inventories" (VMI) where the supplier of the product keeps track of goods. The latest B2B initiative in the consumer products industry along with consulting companies is called Collaborative Planning, Forecasting, and Replenishment (CPFR). Supply chain members plan data, forecasts, shipping,

production plans, and order generation. The ultimate objective is to create a "glass pipeline," where relevant information (pricing, promotions, store openings, and other planning parameters) is shared by supply-chain members in real-time.

(Boone&Ganeshan2001, 32)

According to Stigler the identification of sellers and the discovery of their prices generate demand-side transaction costs that are critical in order to clear the market. Under these conditions, demand becomes less elastic. Sellers, in turn, are able to incorporate price margins that account for this reduction in elasticity. Transaction costs may also result from the presence of imperfect and costly information. Therefore, information search and retrieval costs result in product price increases in markets in which products are heterogeneous and in markets in which products are homogenous in nature (Stigler 1961).

Analytical evidence suggests that disparities between the sellers' marginal costs and the price charged for a given product are partially the consequence of higher search costs, enabling sellers to price their products above marginal cost levels and maintaining these prices in equilibrium. (Diamond 1971, 156)

Furthermore, it has been shown that in instances where search costs are large enough, sellers can gradually increase the price of their products up to monopolistic levels. It has been analytically proven, on the other hand, that in markets with low search costs, product price dispersion will decrease and price levels will approach marginal costs. (Salop&Stiglitz 1977,493)

Greater access to demand information, provided, for example, by the use of the Internet by endconsumers, does not necessarily result in higher inventory performance levels unless the information is available in a timely fashion— that is, before inventories are committed by the retailer .( Anand 1999,4-5)

As Jeff Bezos, founder and CEO of Amazon.com explained in a June 28, 2000 Internet interview with Charlie Ross, sellers may be able to double their sales and not come anywhere near doubling their costs. Internet, and representing interface between sellers and end-consumers is anticipated to enable the immediate connection between the consumers and a larger number of retailers and other firms that is distributors, wholesalers, and manufacturers located upstream in the supply chain.

These results in lower search costs reflected in a more efficient match between the consumer's needs, wants and the attributes. (Bakos 1997,1676)

The impact that the use of the computer network by end-consumers has started to have on the ability of car manufacturers to match customer needs and wants in a cost efficient manner. Under the traditional model, car-manufacturing decisions are made by taking an educated guess at consumer demand. This method leaves customer more than satisfied.

(Monden 1981, 36)

In 1999 Toyota started using Internet-based business connections with end-consumers to restore the traditional manufacturing-to-stock model in the auto industry. Company aggregates end-consumer orders, while still keeping its volume-based advantages in scale and scope economies. Toyota also foresees that the efficiency in the collection of end-consumer orders enabled by the Internet will allow it to increase the speed at which products flow through its supply chain. In this way, Toyota anticipates that it will be able to fully address end-consumer demands within five days of receiving the orders. (Bodenstab 1999,26)

Another good example is Dell Computers, which uses customer demand information captured by retailers online and shared with suppliers located upstream in the supply chain in order to coordinate the sourcing of supply-chain register.

Once Dell aggregates end-consumer orders placed through its Internet site, it transmits them electronically to either one of its manufacturing facilities worldwide. This is possible because Dell maintains close electronic links.

Next proposition may also work for the company: the Internet Minimizes Locational Inefficiencies in a Retailer's Supply Chain. Customer orders and product inventories must coincide at the same location and at the same time. The decision by the retailer to appropriate inventories must come before the arrival of end-consumer orders. This intrinsic transactional condition places a lower bound in the time lag between the arrival of end-consumer orders and the decision by the retailer to appropriate inventories. As the geographical distance between the retailer and its suppliers upstream in the supply chain increases the time lag's lower bound increases as well.

(Boone&Ganeshan 2001,47)

By appropriating inventories just before the arrival of end-consumer orders, retailers are able to reduce the time products spend at their facilities and minimize the volume of inventory carried at their stores. Instead of managing its inbound material flows in a just-in-time environment, operates under an almostin-time basis. That is, instead of making inventory appropriation decisions right before the arrival of endconsumer orders, company makes inventory appropriation decisions right after the arrival of endconsumer orders.

(Boone&Ganeshan 2001,48)

In proposition 3, the global web increases the frequency of end-consumer orders processed by a retailer. Consolidation of orders and an increased market capacity are the two factors that affect the regularity in which a seller receives orders generated by end-consumers. Result develops when end-consumer orders are combined to a single outlet, order batch sizes enabling scale economies in inventory transportation and costs are reached more frequently over time. The increasing batching frequencies of economically efficient orders, in turn allows for shorter inventory ordering cycles for the outlet. In the extreme of extraordinarily high batching frequencies, the orders may be economically feasible, in terms of inventory replenishing transportation and reordering costs, with product inventories whose location is postponed until after the reception of end-consumer orders. In this case, end-consumer orders take place before retailers decide on the appropriation of their inventories. Therefore, the time lag between the arrival of end-consumer orders and the decision by the retailer to appropriate inventories is eliminated. In a physical retailing environment, such consolidation is not possible. The consolidation of order realization to a single outlet will generate search and location-based transaction costs, making the market exchange highly inefficient. In an Internet-retailing environment, these transaction costs are drastically reduced.

In the case of Mercata.com, company brings a unique business model to the Internet. It allows customers to group together to make purchases, driving down the prices based on higher volumes. What is unique is that for each product, the price will continue to fall as more and more people 'sign up' to purchase it. Mercata.com specializes in general consumer goods, such as electronics, jewellery, and sporting goods, including a wide variety of brand names.

(Click Quick)

As well, Mercata gives its own suppliers a greater control over how their products are sold and how low prices should go.

(Mchugh 1999.p 222)

The result of this Internet-based business model is a supply-chain system in which scale economy gains in transportation and order costs are distributed among all supply-chain entities. Mercata's suppliers save in inventory movement costs and Mercata's customers are able to buy products at prices that are up to 35 percent lower than in traditional markets. Mercata, in turn, makes a profit by taking a 8 to 12 per cent cut of every sale .A high frequency in the arrival of end-consumer orders is also a function of the scope of the market served. The consolidation of end-consumer orders to a single location is ineffective in reducing the time lag between the arrival of end consumer orders and the decision by the retailer. As the market scope decreases, the frequency of order arrivals from end-consumers to a consolidated order location will decrease as well.

(McHugh 1999,224)

Proposition 4 is all about internet increasing retailers number in given market, because the Internet is inherently a global network, the geographic scope of market in which a retailer operates expands. Retailer's strategy would be to prefer a physical location where they can access the potential customers. The relevant market for such a physical retailer is often limited to a geographic area surrounding their choice of location.

The Internet may also increase the number of competitors in a market because there may be a reduction in exit and entry costs. The entry costs may be reduced because the fixed costs associated with establishing a business may be lower. The physical facilities for a retail location and inventory storage may completely vanish for an Internet retailer.

Retailers may change product offerings more quickly which would lead to change of exit costs. They also tend to have smaller amount of physical inventory for a product so they can discontinue selling that product without abandoning large inventories. To illustrate retailer visibility, a sample of CD retailers was assembled from listings provided by an Internet-based market agent. A sample of CD retailers was also assembled from listings provided by a 1999- 2000 telephone directory. The internet based market listed 63 retailers in its site. A number of these retailers specialize in specific market niches In contrast; telephone directory lists only 46 different retailers.

Furthermore, it would take a consumer quite some time to drive around to gather price information from all 46 retailers while it may not take a consumer very long to visit 63 Internet retailers when the next Internet retailer is "only a click away." Possibility that the Internet could actually provide an avenue for a natural monopoly only exists, if the increasing returns to scale continue indefinitely. (Boone & Ganesha 2001, 51)

Another good preposition may be for the company to increase the price elasticity of demand for a given product.

As explained by Proposition 4, when it comes to Internet commerce, the good news for sellers is that customers are only one click away from shopping from their sites. However, the bad news for Internetbased sellers is that customers are also one click away from shopping from their competitors' sites. The increased market efficiency attributed to Internet commerce in the previous two propositions also implies that small price adjustments by Internet sellers may have huge impacts on their sales. If Internet sellers increase their price by a small fraction, it is expected that a noticeable reduction in sales will take place.

Academic work also seems to indicate that Internet commerce generates higher price elasticity as a result of radical reduction on the cost of obtaining and distributing information among end-consumers. (Greenwald &Kephart 1999, 47)

#### 2.10 Sources of cost savings in supply chains

Two primary sources of cost savings in supply chains are:

- Change what/how/when/processed/delivered is purchased or sold
- reduce the time from point of entry to the chain to final consumption or sale

The first source is often approached by a strategic sourcing initiative. Typically, all purchases are identified, the optimum number of suppliers determined, and appropriate strategies applied with the goal of maximising the value of purchases for all items.

The second source of savings can be approached as part of a total cost analysis associated with strategic sourcing initiative or as a separate effort to reduce the 'cash to cash' cycle time. The most frequent means of obtaining savings from increased velocity is to reduce or eliminate material inventories wherever they exist in the supply chain. To seek savings from either of these sources requires as complete knowledge as possible of an organisation's most important supply chains. Such knowledge should include purchases, inventories, members of the chain including suppliers, customers and providers of transportation and other services, and all costs and cycle times throughout the chain. The most effective way to organise this information to facilitate analysis is through some form of process mapping, either on paper or with computer software.(Kauffman 2004,1)

To tap this source of supply chain cost savings, a several techniques are accessible.

The first one, analyses all costs involved in obtaining a material or service to select the least-cost alternative or to identify cost that can be eliminated.

Procurement process improvements may change the procurement process to reduce cost or improve value, for example blanket orders, procurement cards and e-procurement techniques. Organization's all accounting may be identified by making the spend analysis. It would determine what/by whom/from service was bought. This provides information necessary to conduct a strategic sourcing initiative and to apply other cost-saving techniques. Material or service substitution - replace the item or service bought with a different item or service that meets requirements but reduces total cost. Outsourcing determines what can be done more efficiently or effectively outside of the organisation and arrange for others to perform such functions. Operational cost reductions - reduce costs of performing services within the responsibility of supply chain management, for example warehouse operations and purchased services such as transportation. Price and cost analysis - analyse prices and costs of materials and services to determine cost reduction potential. This requires knowledge of markets and processes for the product categories where this technique is to be applied.

Supplier integration is arranging for one supplier materials and services that were previously supplied by multiple suppliers. There are two implementations for this, either vertical or horizontal. Vertical implementation can increase material velocity through the chain and improve the chain's ability to appear as a single entity to customers. Horizontal implementation can reduce procurement process costs and improve volume leveraging potential. Supplier relationship revision - change the relationship with suppliers, for example longer-term contracts, partner or alliance-type arrangements or other changes that will enable reduced costs of acquisition, ownership or other supply chain costs. (Kauffman 2004,2)

#### 2.11 Techniques that reduce costs

• Reduce number of inventory locations - use supplier inventory or supplier-managed Inventory, drop-ship items, consolidates stocks into fewer locations.

• Maintain smaller average inventories - evaluate levels of safety stock, perform analyses such as ABC periodically to ensure that all items are managed properly according to their movement and importance as demand conditions change.

Apply lean manufacturing techniques - reduce/eliminate waste in the form of unnecessary inventories.
Apply just-in-time techniques - similar to lean manufacturing techniques but applied at any Location across the entire supply chain. These operate without extra or 'just-in-case' materials.

• Improve requirements forecasting at all levels - necessary throughout the supply chain to achieve full potential of any inventory reduction programme, particularly lean manufacturing and just-in-time techniques.

In today's logistical environment small orders are expected. Cross docking offers an important advantage. Cross docking is a logistical movement that consolidates shipment from inbound trailers to outbound trailers-also known as cross docks. Inbound trailer often arrives from the different origin and are carrying shipment for different destinations. Shipment handling is handled in within 24 hours. Cross docking has a significant cost advantage. Instead of shipping small orders it consolidates them into truck load shipments. Advantage in cost saving is that both inbound and outbound trailers are fully loaded for trip. (Journal of business logistics 2010,121)

After implementing cross docking in their systems, many companies reported significant savings in transportation and inventory.

Warehousing and cross docking are part of network distribution field. Storing inventory near the customer is the main goal of warehousing. Cross docking, being as an alternative to warehousing is the newest strategy. Its objective is to eliminate storage cost by moving inventory quickly through a cross dock, so there would not be storage to the customers. (Journal of business logistics 2010, 122)

2.11.1 Incoterm CIP

Seller's Responsibilities:

1) Produces the goods and commercial documents as required by the sales contract.

2) Arranges for export clearance and all export formalities.

3) Arranges and pays for all costs for the transportation "including insurance" - of the goods up to the agreed point in the named port of destination.

4) Assumes all risk to the goods (loss or damage) only up to the point they have been handed over to the carrier, typically, but not always, ending when the carrier reaches the agreed destination.

5) Seller must advise the buyer that the goods have been delivered to the carrier.

6) Seller has to provide the buyer with transport documents that will allow the buyer to take possession of the goods at the agreed point in the named port of destination.

Buyer's Responsibilities:

1) Buyer must pay for the goods as per the sales contract

2) Buyer must obtain all commercial documentation, licenses, and authorizations required for import and arrange for import clearance and formalities at own risk and cost.

3) Buyer takes delivery of the goods after they have been delivered by the seller to the agreed point in the named port of destination.

4) Buyer must assume all risks for the goods from the time the goods have been handed over to the carrier, typically, but not always, ending when the carrier reaches the agreed destination.

5) Buyer pays for all costs of transportation, import customs formalities and duty fees, and all other formalities and charges related to the transportation of the shipment from the time the goods have been delivered to the agreed point in the named port of destination.

6) Buyer would accept the seller's transport documents provided they conform to the sales contract and will allow the buyer to take possession of the goods after delivery to agreed point in the named port of destination. (Incoterms)

#### 2.11.2 LSP three broad steps

There are three steps to achieve cost savings: learnstudy and plan.

This structure is performed by demonstration of all stakeholders in a particular supply chain including internal functions, suppliers, customers and third parties such as transportation providers. Prior to any supply chain cost-saving effort, preliminary investigation should be carried out to determine a possible range of savings that could be achieved. From preliminary estimates of cost savings, obtain management supportfor a detailed analysis.

#### 2.11.3 Learn supply chain management techniques

This includes the methods, processes and systems that impact supply chain operations and costs, but are not specific only to supply chains. The precise methods vary from suppliers' operations, information technology, ordering systems, as to forecasting techniques, use of cross-functional teams; product development processes techniques and distribution system operations.

#### 2.11.4 Study the supply chain management

This stage of the process enables identification of areas that have the greatest potential for cost savings. Money - total overall spend and total spend per year per item or related groups or items, total spend per supplier per year, inventory investment values, inventory-related costs, transportation costs, ordering, transferring, receiving costs and quality assurance costs. Material - inventories: raw materials and parts, work in process, finished products, distribution storage systems, transportation systems, designated supplier stocks, customer stocks, material returned, rework, rejects, scrap, MRO materials and spare parts. Identify movement, location, value, quantity and safety stock levels.

Time - some supply chain time cycles: supplier selection, order/receipt of materials and services, requisition/order/receipt, material preparation for processing, transportation, receiving, payment, and engineer/procure/manufacture/deliver. Cycle time improvement contributes to increased productivity, efficiency and ability to compete.

Information - knowledge of supply chains requires information. All organisations have information but, in most cases, it is not organised in a way that contributes to supply chain knowledge. Potential sources of supply chain information: accounting, inventory, production planning and control, sales and marketing, transportation, shipping/receiving, supplier sales, customer purchase and receiving and information systems such as MRP and enterprise resource planning.

#### 2.11.5 Plan performance

Using cross-functional teams integrate knowledge of supply chain management techniques and supply chains to identify problem areas or areas that are not meeting expectations. A review that includes the following may help identify areas with high improvement potential:

• large number of suppliers of a single product or service;

- big money flows in or out of the organisation;
- major continuing purchases;
- major continuing product sales;
- largest volume production;

To ease the implementation, the areas can be classified by cost-saving, then ranked from highest potential or easiest performance and develop specific projects for application of cost-saving techniques in the highest ranked areas.

Implement changes and follow-up to ensure cost savings are achieved and continuous improvement opportunities are captured and implemented. Review metrics periodically And adjust processes as necessary to continue or improve savings.

#### 2.11.6 Short statement of main points

The most important elements of successfully achieving supply chain cost savings are: -use an organised approach, including cross functional teams; -obtain management and stakeholder support, in general and for specific projects; -study and know supply chains; -establish metrics and standards for measurement of supply chain performance -measure results and conduct follow-up reviews to ensure savings capture and preservation

#### 2.11.7 Summary of theoretical discussion

It is important to clarify the synthesis of the literature research before entering in the empirical section of the study. In that section two of the following issues are tested: company's logistical chain and car spare parts marketing research. Supply chain management has become more efficient as companies have understood the extraordinary potential of saving costs. Furthermore, companies have experienced improvement in shipping reduces costs and they have been able to create the competition, by streamlining business operations through strong partnerships.

However the use of partnership has led to the situation, where the legislation has put the unequal expectations. Then the researcher explored the current situations port and logistical contacts though the Intrastat and TYVI.

The objectives of the logistical supply chain and suppliers were studied and latest advances, propositions, techniques and sources of reducing costs presented below.

#### 3 Researchapproach

There are different research approaches. The action study approach has been chosen, because the writer of this thesis has been working in the current company and had the access to the internal information. The company has been invaluable in providing resources for my research needs. Olli Järvinen has been my particular contact but I know that many others have contributed to delivering information that is very effective.

#### 3.1 Research data

The marketing research has been made between 02.02.2011 and 13.05.2011.

After interviewing the employees of Simetron and evaluating the results, it can be seen that the Hyundai was chosen as a main model. The competitive models were Suzuki, Isuzu, Mitsubishi, Volkswagen, Ford, Lexus, Toyota, Skoda, Renault, Kia and Nissan.

The main purpose of the company was to investigate the spare parts prices, to compare them with the competitor's models, their same model motor capacity.

Research data contained all Hyundai price tables and competitive model price tables. The data is confidential.

# 3.2 Qualitative research

Qualitative research seeks out the 'why', not the 'how' of its topic through the analysis of unstructured information - things like interview transcripts, open ended survey responses, emails, notes, feedback forms, photos and videos.

Qualitative research is used to gain insight into people's attitudes, behaviours, motivations culture or lifestyles. It's used to inform business decisions, policy formation, communication and research. Focus groups, in-depth interviews, content analysis, ethnography, evaluation and semiotics are among the many formal approaches that are used, but qualitative research also involves the analysis of any unstructured material, including customer feedback forms, reports or media clips.

Collecting and analysing this unstructured information can be messy and time consuming using manual methods. When faced with volumes of materials, finding themes and extracting meaning can be a daunting task.

It uses in-depth studies of small groups of people to guide and support the construction of hypotheses. The results of qualitative research are descriptive rather than predictive.

The method originated in the social and behavioural sciences: sociology, anthropology and psychology. Today, qualitative methods in the field of marketing research include in-depth interviews with individuals, group discussions. Sessions may be conducted in person, by telephone and through net. (QSR what is qualitative research?)

#### 3.3 Research methodology

Following are the aspects of the qualitative interview: Interviews are completed by the interviewer based on what the respondent says. This method was chosen for interviews are more personal form of research than questionnaires. In the personal interview, the interviewer works directly with the respondent, unlike with mail surveys.

An interview investigation can be outlined in couple method stages: designing the study so it addresses the research questions, the interview itself, transcribing, analysing, verification and reporting.

General interview guide approach was used in interviews with the company's manager and informal, conversational interview was conducted with the sales managers.

The first guide approach was intended to ensure that the same general areas of information are collected from each interviewee; this provided more focus than the conversational approach, but still allowed a degree of freedom and adaptability in getting the information from the interviewee.

In the second approach no predetermined questions were asked, in order to remain as open and adaptable as possible to the interviewee's nature and priorities.

(Interviews: an introduction to qualitative research interviewing)

The sequence of questions was to get the respondents involved in the interview as soon as possible and before questions about controversial matters, facts were inquired. In all interviews questions about the

company's present were asked before the questions about the past or future. The last questions were given to the respondents to provide any other information they prefer to add. (Arizona State University Interview as a method for qualitative research)

3.4 Validity and reliability of the study

According to Kumar (1999, 137) validity is the ability of an instrument to measure what it is designed to measure. 'Validity is defined as the degree to which the researcher has measured what he has set out to measure'. (Smith 1991, 106)

Kumar (1999,140)has also defined the idea of reliability that in relation to a research has a similar meaning: if a research tool is consistent and stable it is reliable. The greater the stability in an instrument, the greater is its reliability.

Reliability is the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of your measurement. A measure is considered reliable if a person's score on the same test given twice is similar. (Reliability and validity; what is the difference?)

In action study the concepts of reliability and validity have been noticed. Reliability represents study's constancy and analogous type of study should present equal data, taken into consideration the alike research conditions. Nonetheless validity involves using the right instruments in implementing study. This study was implemented using an active research method. The secondary sources used in empirical study collected by the author have been collected and analysed carefully and objectively. The usage of theories and existing research improve the validity of this study.

4 Empirical data

# 4.1 Case Simetron Group Ltd.

The interview with the Olli Järvinen began with the company presentation and the history. Simetron Group has been specialized since its establishment in 1997 to import and retail passenger and commercial vehicles. Operations were started in 1997 by imports of Suzuki cars. In 1999 the operations were expanded to cover also car retail and in 2001 distribution of Hyundai vehicles were started. In 2007 a new brand, Isuzu pick-ups, were added to distribution program. Distribution areas for all these makes are Finland and Baltic States. Simetron Group is part of international Bassadone Automotive Group.

Distribution companies are Suzuki Motor Finland Oy, Hyundai Motor Finland Oy and Isuzu Motor Finland Oy. All these three distribution companies have a representative office in Tallinn, Estonia, to take care of operations in Baltic area. Part of the group, as a sister company, is also Nordic Automotive Services Oy, which started as Renault and Dacia importer in November 2010.

The car retail unit is ME-Auto Helsinki Oy, which has three full-service dealerships in greater Helsinki area. All these three dealerships are offering full customer service for Hyundai, Suzuki, Isuzu, Renault and Dacia customers. Dealerships are well located in Helsinki Herttoniemi, Vantaa Tikkurila and Espoo Suomenoja.

Spanish Bassadone Automotive Group not only owns Hyundai, Suzuki, Isuzu, Renault and Dacia but also Toyota Gibraltar Stockholdings LTD, Armoured project vehicles, D.A.Z. SL ,CCDS-Chrysler commercial distribution services, IFC-industrial finance corporation Ltd, SINO motors and Mercedes Benz Star project vehicles.



Figure9 Bassadone



Figure 10Simetron Group oy

Simetron imported Korean mark to Finland for ten years. The importer must present a full ten years with Hyundai, but the first rumours about the entry to Finlandarefrom1977. At that time, Hyundai's exports to Finland's representative thought to begin next year. Just as quickly the case has not gone far.

The first major instalment of the Hyundai Pony models of cars arrived Helkama CarCor-established Motors'sale in 1990. The following year, sales of brand-mark rose at #21almosta thousand more than the car's registration and per cent market share. Sales faded slowly, and in1997werenoless than a hundred plates of Hyundai. Then there was a pause before the brand new entry, which is now being celebrated.(TM net)

# 4.2 Hyundai Motor Company

Hyundai Motor Company is a Korean automaker which along with Kia comprises the Hyundai KIA Automotive Group, the world's fifth largest automaker as of 2009. In 2008, Hyundai ranked as the eighth largest automaker. (Hyundai Motor Company) Hyundai operates the world's largest integrated automobile manufacturing facility and is headquartered in Seoul, South Korea. The company employs about 75,000 persons around the world. Hyundai vehicles are sold in 193 countries through some 6,000 dealerships and showrooms worldwide. The company is now the fourth largest carmaker in the world with the value estimated at 4.5 billion Euros. Brand's supremacy continues to rise as it was ranked 72nd in the Best Global Brands by BusinessWeek survey.

The Hyundai logo stylized "H", symbolizes the company shaking hands with its customer. On November 2008, Hyundai opened its European plant in Czech Republic, which manufactured only the most popular hatchback, the i30. Hyundai invested over 1 billion Euros and Slovakia.

Combining style, comfort and a high specification that delivers genuine value for money i30 was perfect for the European market.

In April 2010, the model reached the500000milestonesoldworldwide. In Europe modelhassoldover200000copies.

# 4.3 Suzuki Motor Corporation

Suzuki Motor Corporation is headquartered in Hamamatsu, Japan .Company is a Japanese multinational diamond brand. The production volume is the 9th largest automobile manufacture in the world and employs over 45,000 people in 23 countries and has 133 distributors in 192 countries. Company specializes in manufacturing compact automobiles and 4x4 vehicles, motorcycles, all-terrain vehicles, marine engines, wheelchairs and a variety of other small internal engines.

#### 4.4 Company history

The history of the company is not old, because it was establish in 1997 and straight away started its distribution with Suzuki. After four years Hyundai joined and the sales office was opened in Tallinn. The company opened its big dealership in 2007 in Herttoniemi, Helsinki and Bassadone group started the intensive restructuring with the ownership of 100%.During the last 2 years company started the retail and distribution of Dacia and Renault.



#### Figure11Company'soperations

#### 4.4.1 SWOT analysis

S <u>trengths</u> adjusting cost effective experience English language knowledge insight information from the union taking care if IT security customer loyalty life time value from the customer HRM personal contact with the customer offering full service size of the company internationalization networking	<u>Weaknesses</u> lack of professional Swedish speaking personnel lack of personnel know-how
<u>Threats</u> change of law international financial reporting standard it security problems competition loss of key staff	Opportunities change in legislation: -not compulsory auditor in small companies -accounting business becoming regulated trade IT systems development improved software and internet management training personnel training a new international market

The company's SWOT analysis represents the strengths, weaknesses, threats and opportunities of the company. In strength section one of the main strengths is listed internationalization. This strategy so far has been to keep local managers in new acquisitions, and to only transplant a couple of senior managers into the new market. The benefit is that Simetron has been able to exchange expertise. The company has

a strategy in place for the next stage of its expansion. Not only is it focusing upon new products and acquisitions, but it also has agenda of intensive management development in place in order to establish its leaders for tomorrow. The company has had a successful alliance with S-etu Automaa in April 2011.

In weaknesses section it may be mentioned the lack of Swedish speaking staff. Even though company operates using English language as a business language, it has a warehouse in Sweden. Threats in car cluster are other competing car manufacturers. Simetron still has to get into the high leveling terms of quality and lean production. Sustainability and environmentalism could mean extra costs for this low-cost producer. This could impact its underpinning competitive advantage. Since the company has focused upon the commercial vehicle segments, it has left itself open to competition from overseas companies for the emerging. Rising prices in the global economy could pose a threat to Simetron. The price of steel and aluminum is increasing putting pressure on the costs of production. Opportunities are in a relation with the active personnel training and discovering a new market. It systems development is the main factor too.

#### 4.5 Supplier

#### 4.5.1 Mobis

Mobis was established in 1977 as Hyundai Precision & Industries Corporation. It is an auto Parts Company with headquarters based in Seoul, South Korea. In 2000, the company changed its name to Hyundai Mobis. The company forms the 'parts and service' arm for Hyundai Motor Company and Kia Motors, both of which are Korean brands. This company is the main supplier for Simetron.

Mobis has ware houses in Europe, which are situated in Belgian town, called Lumen and Swedish town Jönköping. Simetron receives their Hyundai orders from Swedish warehouse and Isuzu spare parts from Belgium.95% of Suzuki's spare parts are delivered from Suzuki Motor Corporation which is in Germany. Other 5% are delivered using the just-in-time approach from Japan.

There are several subscription ways, for example: stock, emergency and VOR.Subscription methods of delivery times and order requirements are due to geographical.

#### 4.5.1.1 Stock

Stock order is made every Monday and the delivery time to the warehouse is 5 weekdays. Hyundai spare parts are first packed and driven by truck from Jönköping to Stockholm 'sport, and shipped to Helsinki port, from there driven to Simetron warehouse. Following Incoterm 2010 is used:



#### Figure 12 Risks and costs, CIP incoterm

As it can be seen from the Figure 13, the seller's risks end the moment the goods are delivered to the carrier, but typically do not end until the carrier reaches the agreed destination. The seller is responsible for all costs up to the named port of destination.

#### 4.5.1.2 Emergency

Emergency means express delivery and the delivery time is usually from 1-3 days. This specific delivery does not include the transport of dangerous goods. Dangerous goods are divided into classes, for example corrosive, flammable and explosive. Simetronimportanly 2 dangerousgoods, explosiveshot and accumulator.

#### 4.5.1.3 VOR delivery

VOR delivery for Hyundai is made online through PRO-WEB at vor@simetron.fi.

The delivery time is 2 weekdays and the cost is 28 euro per shipment. If there is a contract with the seller and the guarantee is paid then company does not have to pay anything.

VOR delivery for Suzuki is shipped from SIE-Suzuki International Europe from Germany.

The delivery has to be made once a week before the 12.00 and the delivery time is 2 weeks.

If the spare parts are in Germany the delivery time is only 3 days.

VOR delivery for Isuzu is two weeks and the goods by air from Belgium, Isuzu Motor Europe. Delivery time for the stock house is 2 weekdays and for the retailer 3 weekdays.

The warehouse of Simetron is in Voutila, where the goods receipt inspections made, they are shelved and packed. After goods are packed they are ready to leave to retailers shops.

HRX is Estonian Transportation Company. They represent and manage the logistics in Baltic countries. HRX's package delivery system network is strategically located throughout the Baltic Region to deliver internationally as well as domestically.

#### 4.5.1.4 Itella

Simetron has been cooperating with Itella since 2000. Itella is always responsible for insuring the goods.

When an Insured item, in this case one spare part arrives at Itella's postal outlet, an advice of arrival will be delivered to the addressee.

The item is handed over to the addressee or a person authorised by the addressee against a signature. If the sender has restricted the right to sign for the item so that it may only be handed over to the addressee, the item will not be handed over against a proxy.

The price of an Insured item is based on the weight and insured value of the item.

# 4.5.2 Retailer

At the time the goods are sent to dealers, the goods are being checked; right amount is counted and signed. From the interview with the manager Olli Järvinen this stage of the logistics appeared most important and people who received goods made mistakes by not comparing the freight papers with submitted goods. Goods were not properly checked and just signed. The company paid for something they did not receive!

# 4.5.3 Containers and insurance

Container rental costs are for 2m\*2, 5 m about 3,500 Euro and from Italy even 4000 Euro. Freight cost is emphasized on basic freight, fuel surcharges, toll and if there are dangerous goods- transport of dangerous goods additional fee.

Container rental is included in the freight. Container is brought from Vuosaari port to Me-auto yard and there is a limited time, 24 hours to unload cargo. Fine delay for container is 150 euro for one day. Simetron's contract with Mobis dictates the free freight, which means that Mobic is always paying the weekly deliveries. Same is for Suzuki, but in Isuzu case Me-auto pays the cargo.

Insurance doe not compensate any of strikes or ice problems in port or war situations. Damage report is filed to Itella or Mobius, depending from the situation with mentioning the product number and itella's SSFI transaction code.

#### 4.6 CustomerComplaintHandling



#### Figure13Customer complaints

Customer of any company might have many kinds of problem concerning a product or a Service delivered from their supplier. These sorts of problems are solved by a special group of people. Customers have two options to get in touch with the company which are via an email from Simetron website, calling directly to the head office, which number is

Recall can concern the wrong or broken car spare part, mistake in order or order delivery time.

All customer complaints are managed directly by either our General Manager or by a relevant member of senior management.

The Process starts with lodging the registration or any dissatisfaction regarding the product or service and company tries to resolve it and make sure that the customer is satisfied.

This return request form is being filled in and passed to Olli Järvinen. Hyundai, Suzuki, Isuzu are firstly mentioned. The request is being processed by the manager and approved expense reimbursement processing is always 20% from the return value.

#### 5 Contracts

There are 3 types of contract:

- 1. Car sales
- 2. Service and parts
- 5.1 Car showroom, which combines the sales and parts

The clean purchase price (HH-puhdashankintahinta) is the price of a bond excluding any interest that has accrued since issue or the most recent coupon payment. This is to be compared with the dirty price, which is the price of a bond including the accrued interest. Clean prices are more stable over time than dirty prices - when clean prices change, it is for an economic reason. Dirty prices change day to day depending on where the current date is in relation to the coupon dates, in addition to any economic reasons.

Shipping goods via cargo can be a very complex and expensive logistical task. Weekly delivery is a cargo free for the company, but the VOR (vehicle on the road) is a 24 hour fast delivery, only if customer want the part next day. In that case the company makes the order before the 13 pm and they have the delivery next morning. These cases are very rare because of the high price, which company will have to pay.

The goods are removed from the acquisition price (HH) and made into a recommended retail price (OVHohjevähittäishinta).

#### 5.2 Europe Customs

Since EU is not a country, there is no such thing as "EU customs". Each country have their own customs which are regulated by the law in the specific country. VAT is not a customs duty. Customs are exactly the same for all EU member states.

However, if the goods imported to Finland from the EU territory, it is unpaid duties and to make an import declaration. Instead, the goods must be made of the Intrastat declaration if the value of imports exceeds EUR 275 000 per year. Intrastat system for collecting information from visiting Finnish trade with other EU countries.

# 5.3 Company order

Simetron is a VAT registered business in Finland, then it can be used against VAT able sales in company's return. VAT must be paid on the total value of import. This means, the value of the goods, plus the cost of transport and insurance.

In a case of example there would be Suzuki Company. Simetron orders parts from Suzuki International Europe GMBH warehouse, which is located in Germany. Originally the parts were imported from Japan and the taxes have already been paid. Nowadays the shipping does not take long, but still 5 years ago it used to take up to 3 months.

# 5.3.1 Warehouse program

Simetron warehouse program classification works, with the turnaround time of 1 week between the order placement and the cargo shipping delivery.

Warehouse logistics solutions are effectual the minute they are integrated into the business transactions for they are so easily applicable. They improve the transaction flow and make the working process organized. The staff can manage products inflow and outflow so easily and accurately because each segment of warehouse is separated into bins and employees just need to check the database to locate specific items.

The system in Simetron is a web based, which means that personnel can log in, see what items their car department has and even have a checkout request straight away. The program also sends a request to the spare parts manager of the department, so that he is aware of the materials that have already been taken by the mechanic.

For instance there are products needed from the warehouse, one only has to check the integrated database to gain access to a total listing of the current and expected inventories. When there is in-bound traffic of products, when goods are received in the warehouse, the software automatically guides process so that the items can be placed in the right location of the warehouse. This saves up a lot of time when locating for some material later and it also gives a clearer picture of the goods present and absent.

#### 6 Conclusion and recommendations

After the research is finished, it is possible to start answering the research questions. In the section purpose of the thesis, several questions were asked: how to reduce car spare parts price problems by increased visibility in the supply chain and also to estimate the impact of these solutions; also how Hyundai prices accommodated in marketing research.

In the theoretical framework section the subject of the logistics was to conclude this, it can be said that there will be several types of reducing the cost of pipeline.

The simplest primary sources of cost savings in supply chains would be what/how/when/processed/delivered is purchased or sold.

To seek savings from requires as complete knowledge as possible of an organisation's most important supply chains. Such knowledge should include purchases, inventories, members of the chain including suppliers, customers and providers of transportation and other services, and all costs and cycle times throughout the chain. The most effective way to organise this information to facilitate analysis is through some form of process mapping, either on paper or with computer software.

For as big company as Me-auto the techniques saving are very easy to implement. For example nowadays small orders are expected. In logistical environment they become very common.

Also a cross docking offers an important advantage. Cross docking is a logistical movement that consolidates shipment from inbound trailers to outbound trailers-also known as cross docks. Inbound trailer often arrives from the different origin and are carrying shipment for different destinations. Shipment handling is handled in within 24 hours. Cross docking has a significant cost advantage. Instead of shipping small orders it consolidates them into truck load shipments. Advantage in cost saving is that both inbound and outbound trailers are fully loaded for trip.

After implementing cross docking in their systems, many companies reported significant savings in transportation and inventory.

Warehousing and cross docking are part of network distribution field. Storing inventory near the customer is the main goal of warehousing. Cross docking, being as an alternative to warehousing is the newest strategy. Its objective is to eliminate storage cost by moving inventory quickly through a cross dock, so there would not be storage to the customers.

#### 7 Theoretical linkage

The theoretical section of this thesis clarified theories concerning logistical chain, suppliers, push and pull tactics, shipping and JIT approach. The theories have been presented in order to understand the linkages between the theory and empirical study of thesis.

Logistics in general has been examined in order to understand more deeply the crucial role in today's business world.

Also the role of supplier provided deeper understanding of car industry and Incoterms.

# 8 Summary

Logistics is the veryessence of trade. It contributes to a higher economic standard of living for all people. To the individual firm operating in a high-level economy, good management of logistics activities is vital. Markets are often national or international in scope, whereas production may be concentrated at relatively few points. Logistics activities provide the bridge between production and market locations that are separated by time and distance.

Logistics is a collection of functional activities which are repeated many times throughout the channel through which raw materials are converted into finished products and consumer value is added. Because raw material sources, plants, and selling points are not typically located at the same places and the channel represents a sequence of manufacturing steps, logistics activities recur many times before a product arrives in the marketplace. Even then, logistics activities are repeated once again as used products are recycled upstream in the logistics channel.

There is intensifying competition in the automotive sector and companies are searching for the most efficient ways to reduce the costs down. The marketing research present the facts of it.

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# List of figures

Figure 2 Logistics supply chain	7
Figure 3 Integrating Supply Chain process	8
Figure 4 Flow	8
Figure 5 Fundament utility creation in the economy	10
Figure 6 Strategies	11
Figure 7 Links in a logistical system	14
Figure 8 Indicators of the supply	15
Figure 9 Outbound and inbound	16
Figure 10 Bassadone	29
Figure 11 Simetron Group oy	30
Figure 12 Company's operations	32
Figure 13 Risks and costs, CIP incoterm	34
Figure 14 Customer complaints	35

#### Appendices

Interview questions

- 1. When company was established and by whom?
- 2. How many years Simetron imported Korean mark to Finland?
- 3. What are other marks company imports?
- 4. What are company's strengths, weaknesses, threats and opportunities?
- 5. Who is the main supplier?
- 6. How is supplier involved with the company's logistics thinking?
- 7. What are the logistical functions in the supply chain?
- 8. How is stock order being made?
- 9. What are the delivery types?
- 10. What is the difference between the VOR delivery and emergency?
- 11. How container is rented?
- 12. Who pays the insurance? Company or supplier?
- 13. How are the complains handled? With the customers and B-to-B