Approaches of Aftermarket Services for Successful Customer Relations

- A Study of Volvo Trucks de México S.A. de C.V.

Anders Parmbro

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Department of Industrial Economics and Management
Royal Institute of Technology
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Abstract

It has for many businesses, especially on competitive markets, become fundamental to offer augmented services around the core product, with the aim of building lasting and mutually beneficial relationships with the customers. The author of this thesis has investigated such services offered on the Mexican truck aftermarket.

The art of creating successful customer relations requires theoretical insight. Research applicable on aftermarket services has therefore been studied, and the reader will go into theories of service management, relationship marketing, customer satisfaction, and customer loyalty, to better understand the contexts in which aftermarket activities can be placed.

The empirical research has been carried out at Volvo Trucks in Mexico through interviews with employees and dealers of its aftermarket organization, but also through interviewing and surveying its truck customers. The main objective of the project was to identify gaps between the aftermarket services offered and the actual needs of the customers, and to address them. Another objective was to find appropriate ways of monitoring customer satisfaction- and loyalty in the future.

The lack of spare parts at the dealers was found to be the most urgent problem for the moment. In addition, spare parts availability was evaluated to be the most important area among the surveyed customers.

Financial problems of the dealers were found to provoke the lack of spare parts in many cases. In turn, evidence of poor management was identified as possible causing factors to the financial problems. The main general flaw in this sense would be a questionable dealer business focus.

The research identified the following issues as possible areas of improvement, based on the theoretical approach chosen:

- A financial renovation of the Volvo Trucks dealer net, excepting the dealers that are not fully committed to its role. Those are to be phased out.
- Initiation of IT-solutions to support automatic replenishment of spare parts at the dealerships. Forcing the usage of a common CRM database.
- Introduction of corporate key performance indicators based on customer relations' metrics.
- Altering dealer business focus towards relationship marketing thinking.
- Improve dealer management business vision and business knowledge.

In addition to these findings of possible areas of improvement, the following future methods of customer satisfaction research and customer loyalty metrics are recommended:

- Yearly one-to-one interviews with core customers performed by the aftermarket organization, and continuous close follow-up actions performed by the dealers, to monitor customer satisfaction.
- Customer defection rate metrics to monitor customer loyalty.

Foreword

It was the sincere interest of customer relations, business development, and marketing that made me contact Volvo Trucks in Mexico in July 2003 to ask for an assignment to conclude my career in Industrial Economics and Management at the Royal Institute of Technology.

But why Mexico? The reason to go that far was simply due another sincere interest, namely for the Spanish language and the culture of the Spanish speaking part of the world. It is therefore hard to describe the excitement that arose when the managing director and the aftermarket director of Volvo Trucks de México, in just a couple of weeks, welcomed me to join the aftermarket staff in Toluca during the fall 2003 to conclude this thesis.

The dream had come true, and the project turned out to be even more interesting and enjoyable than I could imagine. Few students have had the opportunity to find such an interesting project, such a nice environment, and such happy, helpful and humoristic supporters as was the case for me in Toluca. Not only there, but also during the many hard days and nights of writing in Sweden afterwards have I been helped by my Mexican friends.

Acknowledgements

I would especially like to thank the aftermarket director of Volvo Trucks de México S.A. de C.V., my tutor Mr. Jaime Rodriguez, for being of great support and for putting great trust in me during the project, and the managing director, Mr. Carl Heikel, for giving me this opportunity.

I would also like to give my sincere thanks to the employees in Toluca and Santa Fé for supporting me in the conclusion of my Master of Science degree.

You all Mexicans have been great.

In Stockholm, my tutor at the Royal Institute of Technology, Mr. Terrence Brown, and my fellow students Mr. Daniel Thenander and Mr. Crafton Caruth have been very supportive in terms of the elaboration of this paper.

It has been fun, interesting and incredibly stimulating working with all of you.

Stockholm, March 2004

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1. Introduction

Philip Kotler is a marketing authority. He has presented many still prevalent theories on marketing, and when treating the area of product strategies he suggested that a product should be viewed in three levels, according to Figure 1.

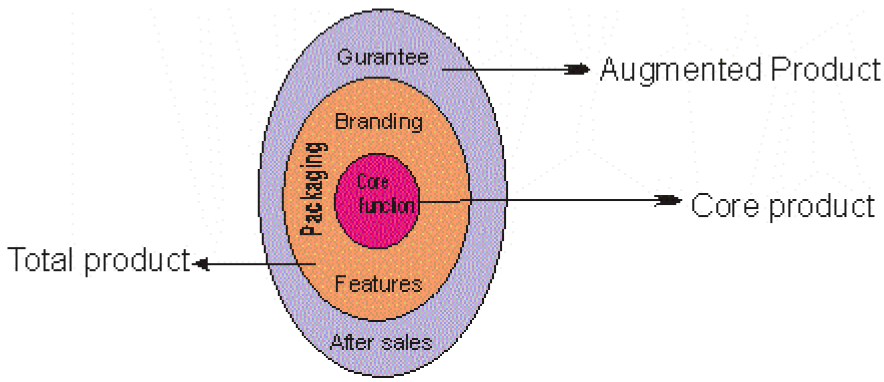

Figure 1. Kotler's three product levels

Source: <http://www.learnmarketing.net/product.htm> March 9, 2004

The first level is the *core product*, for example a camera. Customers who purchase a camera are actually not only buying a camera, they are buying memories.

The second level Kotler calls the *total* or *actual* product. All cameras can capture memories. The strategy at this level would be to use branding and additional features that add differential benefits to the core product.

The third level is the *augmented* product. What additional non-tangible benefits can be offered? Competition at this level is based around after sales service, warranties and the like.

1.1 The truck aftermarket

If we look at road transportation, the core products would be trucks.

In many countries, the players in the truck industry meet on mature markets with high core product competition. This is the case in Mexico. The customers have a fair amount of similar products to choose from, and it is relatively easy to switch brand. Then, the total product with features and branding becomes important. What makes one truck different from another? Which ones are known to have the best overall quality, to be the most stylish or to have the best engines?

Quality in the vehicle itself can be considered to be an order qualifier. But today this is not enough. Truck suppliers have been increasingly aware of the importance of solving all of the customers' problems that can be related to the operation of a

truck. The augmented product has become a critical success factor. Keeping customers requires a full commitment in this area.

This thesis will focus on and investigate the augmented product features of heavy long haul trucks in Mexico. From now on, we will refer to the augmented product as *aftermarket* support, services or activities.

Is there a general definition of aftermarket? The author has been unable to find one that is easily understandable. But for truck suppliers, it is fundamental to offer aftermarket services such as maintenance, repairs and spare parts distribution to help the customers keep their trucks rolling. In addition, different kinds of training to customers' drivers and technicians have become increasingly important, not to speak about the financing of the end customer's acquisition and ownership of the trucks. Practically every truck OEM[1] has created its own independent credit agency.

The intention of this thesis is to explore how the aftermarket activities – excluding the separate financial activities of the credit agency – are carried out by the aftermarket organization of the company subject to the research.

The intention is also to highlight relevant research of the field – relevant from the author's point of view – to show on important parameters to succeed in the efforts to win the customers' long term confidence. These parameters will, as the reader will see, build on relationship creation to increase the value of the customers' business, with the aim of mutually beneficial outcomes.

A relationship approach has been chosen because of the author's opinion of its adequacy. Aftermarket activities are inherently service oriented, and practically all employees in these kinds of organizations will have to deal with customers on a daily basis. Since customers are the ones that ultimately create value for a company, these interactions are monumental to sustain profitable long term relations. The customers will become loyal and generate profits only to the brands that succeed with this extended support.

The reader will in the following subsections be introduced to the company subject to the research and the other leading truck companies on the Mexican market. Thereafter it is time to present the problem background that will lead us to the research questions and the purpose of this thesis.

1.2 Volvo Trucks in Mexico

Volvo Trucks de México S.A. de C.V., from now on frequently referred to as VTMX or Volvo, forms the sales unit on the Mexican market for Volvo Trucks, the world's third largest producer of heavy trucks.[2]

VTMX started out in Mexico 1994, producing and selling trucks with an American design[3]. 1996 VTMX switched to importing all of their trucks from the manufacturing facility in North Carolina, U.S.A., facilitated by the NAFTA (North American Free Trade Agreement).

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[1] OEM = Original Equipment Manufacturer

[2] <http://www.volvo.com/trucks/global/en-gb> March 9, 2004

[3] A long front containing the engine

By then, dealers were being contracted, spare parts distributed and a service school being established. 1998 Volvo Financial Credit – Volvo's independent credit agency in Mexico – was started, offering financial support and insurances to customers. 2000 VTMX reached 12% of the main product segment of class 8 trucks with 1800 trucks sold[4].

The company has its headquarters in Santa Fé, Mexico City, which includes corporative administration, human resource management and the marketing and sale function for new trucks. Also housed in Santa Fé is Volvo Financial Credit. The headquarters – excluding the credit agency – employs 26 persons.

Additionally, less than an hour away by car, in Toluca, VTMX has its aftermarket function. The aftermarket unit was born in 1998 as the call for a unified after sales support function had surged during the first years. The Toluca installation includes the national stock for spare parts as well as a technical training center.

All of the 25 employees in Toluca are committed to the support to the 19 full line Volvo dealers and 5 parts- and service affiliates around the country. The dealers are all independent private businesses that sell trucks and spare parts for commissions, but their installations have to look the way Volvo wants it to look like. They also offer authorized service for Volvo trucks and sometimes for Volvo buses. The Volvo dealer net has only been present seven years in Mexico, and it constitutes the important interface to the customers, the Mexican transport companies. The national coverage of dealers can be seen in Figure 2.

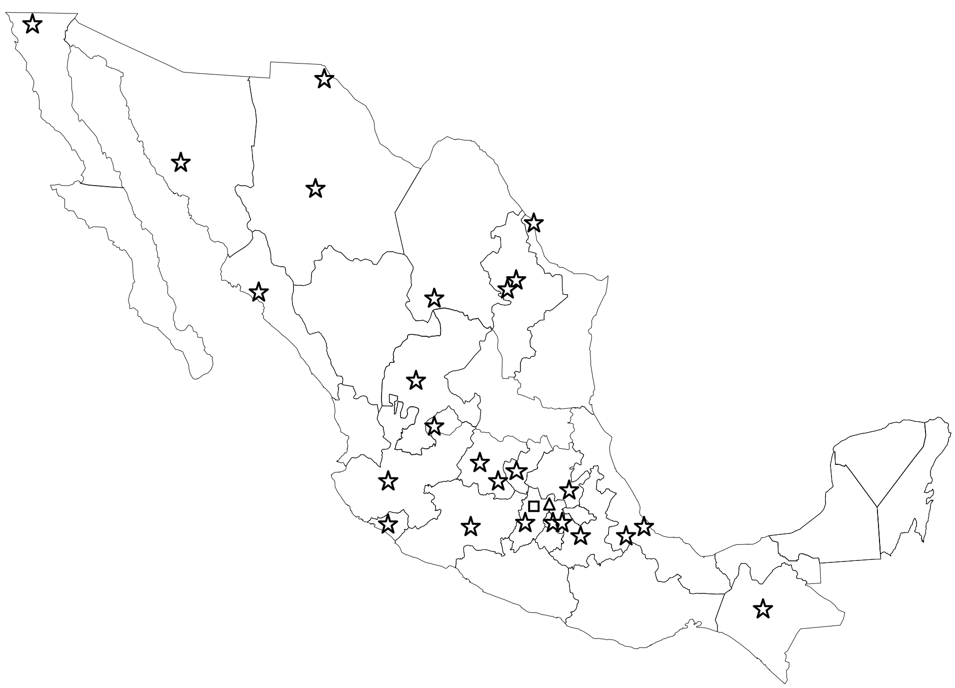

Figure 2. ☆ = The Volvo Trucks dealers in Mexico. △ = VTMX headquarters, Santa Fé. □ = Aftermarket support, Toluca.

Source: VTMX 2003

[4] Speech by VTMX managing director Carl Heikel, April 8 2003, Swedish Trade Council, Stockholm

1.3 The competitors

VTMX concentrates exclusively on the Mexican market where it in November 2003 was the number four company with a market share of 9.6% of class 8 heavy long haul trucks.[5] The American brands Kenworth, Freightliner and International had 57.4%, 19.2% and 12.0% respectively of this segment, and are seen as the major competitors. Another Swedish brand, Scania, had a little more than 1% and Sterling 0.5%. Please refer to Figure 3.

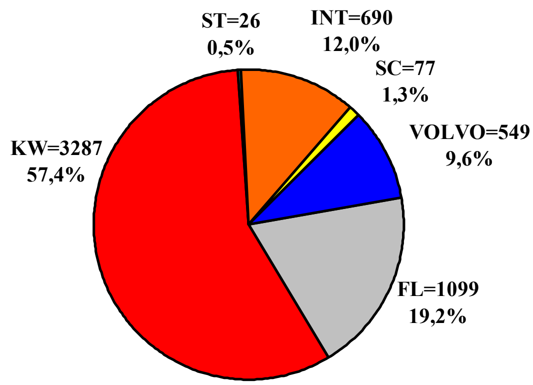

Figure 3. Class 8 long haul trucks sold during 2003 and corresponding market share as of November 30, 2003. KW=Kenworth, FL=Freightliner, INT=International, SC=Scania and ST=Sterling.

Source: Internal retail sales figures, VTMX, 2003

Kenworth has been present on the Mexican market longer than any other foreign brand. It entered 1959 and has been competing only with domestic Mexican brands until recently. The brand was number four in the U.S.A. in November 2003 with a market share of 10.6%[6], but its many years of presence in Mexico have permitted the company to develop a large market share and a dense dealer net. It has more than 100 points of sale for spare parts[7], and the company is widely known among Mexican customers. Kenworth often refers to its experience in its promotions.

Freightliner is part of the DaimlerChrysler group. It is the number one brand in the U.S.A. They located production in Mexico 1991[8], and its dealer net has been present 15 years[9].

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[5] Class 8 trucks (over 16 tons) with the capacity to pull a trailer. This is the type of truck subject to the research since it counts for around 90% of the class 8 units sold in Mexico by VTMX.
[6] <http://www.todaystrucking.com/trucksales-us.cfm> March 9, 2004
[7] <http://www.kenmex.com/PostVentaKenworth/refacciones_y_servicio.asp> March 9, 2004
[8] <http://www.freightliner.com/inside/locations/fltrucks.asp> March 9, 2004

International entered with its own sales functions relatively late, 1996, but claims to have had technical co-operations going on since 1926. The company has developed close to 70 points of sale of spare parts. It lately invested $ 11 million in a 10,000 square meter center of spare part distribution in Queretaro, central Mexico, where 7000 different parts are stored. The system is integrated with the corporative headquarter stock in Chicago, Illinois, and the customers can across the Internet see the spare parts available, confirmations and the status of orders. Furthermore, the company offers software that helps to administrate the customers' spare part stock, for example reordering of needed parts automatically and bar-code managed inventory. It also offers member card products that allow integrated billing of parts and services. These card products maintain a guarantee of consistent pricing of International parts across North America with its almost 1000 dealers.[10]

Scania had its first buses circulating in Mexico 1992 and started production of trucks in 1995. The company openly promotes a training program for drivers as a way to improve the use of the truck.[11]

[9] Employee 4 interviewed during this research, please refer to Appendix 3
[10] <http://www.internationalcamiones.com> March 9, 2004
[11] <http://www.scania.com.mx> March 9, 2004

1.4 Problem background

1.4.1 Special aftermarket conditions

In general, aftermarket support is perceived as an important improvement opportunity for all of the truck OEM's in Mexico. However, the conditions for after sales business on the Mexican truck market are somewhat different from a European point of view.

1.4.1.1 High demand for spare parts

One example is the American way of ordering a truck of a certain brand, but with the possibility of choosing other, specialized brands of the engine, the clutch or the suspension. In Europe, customers are used to the main components of the truck being of the same brand as the vehicle. The Volvo Trucks factory in Gent, Belgium, covering the European market, thus has less variety to take care of.

As all the main competitors of VTMX are American companies that have been present many years on the Mexican market, free choice of components has become a common requirement. Customers are used to choose any brand combination of components, and require service know-how and spare parts availability accordingly.

Under these conditions, the automotive parts industry is thriving. However, it is less than 10 years ago that the OEM's introduced their sales of spare parts in a larger scale. Suddenly they realized that it would be great to have a piece of this $ 1600 million market. Consequently, in Mexico as much as 80% of the sales of truck spare parts still come from independent stores. [12]

The huge potential to increase the parts sales for the OEM's has probably been held back by the fact that the quality of the parts traditionally has tended to be less important than the price. This tendency is changing, but is the reason why customers still buy many pirated, cheaper copies of original parts.

1.4.1.2 Own workshops

Another example of a special Mexican condition is the common practice for end users to have their own repair shop, do not matter how many units they have. Dealers' shop demand is therefore based on warranties, technical issues not solved by customer mechanics, customers in transit and services provided during the warranty period.

Sällvin (1999) made a similar research to this at the New Zealand truck market. He found that there was a difference between customers that had their own repair shop and those who did not. The former had a high need of spare parts availability, whereas the latter had a higher need for good repair services.

The initial project assignment for this thesis indicated spare parts availability as an important aftermarket parameter in Mexico. Please refer to Appendix 1.

[12] Employee 4 interviewed during this research, please refer to Appendix 3.

1.4.1.3 Powerful critics when services fail

If a Mexican is not satisfied with something, he generally lets others know. Thus, it will not be long before bad public relations will show. Scania has already had the unpleasant experience of how Mexican customers can react if not treated properly. During the last years, Scania customers have been increasingly annoyed with failing aftermarket services, above all a poor availability of spare parts.

As a reaction, at the Expotransporte fair in Guadalajara, the largest annual fair with all of Mexico's transport industry present, angry customers showed their rage with Scania the following way. 2002, they parked some Scania trucks just outside the fair main entrance with many vital parts removed, indicating the difficulties to find spare parts. 2003, at the same spot, they had brought a big pig with the phrase "This is Scania" written on it. Both years, they distributed flyers indicating the lack of seriousness of Scania and their incapacity of keeping spare parts and listening to their customers.

1.4.2 Decreasing market shares 2003 due aftermarket problems?

The last year's shrinking world economy has been of major importance for the decrease of sales of all truck OEM's in Mexico. However, other recent internal key figures had caused more concern in VTMX.

Since 1994, VMTX has been offering quality and safety products in the Mexican market, by many customers considered as the best. Despite of this, market share had not reached the level planned, especially not for 2003. In December 2002, the Volvo market share of long haul trucks was 14%. As mentioned in a previous section, in November 2003 it was less than 10%.

In fact, at the end of July 2003 it had dipped as low as 7.8%. VTMX believed this situation had surged mainly because of the current Mexican economy in combination with the high pricing of their products, but also due lack of proper aftermarket support provided through their dealers.

This is why the author of this thesis was involved, to investigate if there actually were any evidence confirming the latter explanation.

1.4.3 Research questions

Having the size of the Mexican transportation industry in mind, and also the example of Scania as an indication of the bad image word-of-mouth communication can cause if aftermarket attention to the customers is abused, the relevance of this project was obvious. The assignment was also clear from the beginning, as presented in Appendix 1. Questions should be asked directly to customers. How do they perceive Volvo compared to its competitors? What needs are not covered? Asking these kinds of questions would give valuable information about how the VTMX aftermarket organization is performing in terms of creating good customer relations.

On the other hand, looking at the organization from the inside would possibly also add information and facilitate the understanding of flaws expressed by customers. Are the management, employees and dealers working towards common ends? Do they have a common business focus and are they all committed to the importance

of the aftermarket? Possible answers to these questions would be found through investigating the VTMX aftermarket organization internally.

Additionally, literature studies are both compulsory and indispensable in thesis writing. It would definitely add value also to this project to let theory contribute to the research.

The author of this thesis therefore, relatively soon after the arrival to Toluca the 29 of September 2003, elaborated the purpose of the research together with the aftermarket director.

1.5 Purpose

The objective of this thesis is:

- To present prevailing research and theories, applicable on aftermarket services in general, and on the truck industry aftermarket in particular, thereby enlightening appropriate approaches for successful customer relations
- To empirically identify gaps between the current service level offered by the aftermarket organization investigated and the actual aftermarket needs of Mexican truck customers; gaps that might cause low customer satisfaction
- To use the theoretical and empirical findings for proposals of improvements within the investigated organization, and for proposals of strategies to continuously monitor customers' satisfaction with truck aftermarket services

2. Disposition of the Thesis

The following sections will concern issues as described below:

3. Frame of reference

Since the VTMX aftermarket division largely is a service organization, created to look after the continuous needs of the operating Mexican truck companies, this section aims to inform the reader about research and prevailing theories on service management, service marketing and customer relations.

4. Method

In this section the reader will first learn about some theory of research, including common approaches, common methods, and about reliability and validity. Then the process of choosing the appropriate methods for this project will be accounted for. Finally, we will see more in detail how the specific methods and techniques chosen were applied during the research.

5. Empirical Results

The reader will see the results of the empirical part of the study. An account of the present VTMX aftermarket commitments comes first. Thereafter, the dealers' and the customers' situation will be described.

6. Analysis of the empirical results

Here patterns in the empirical research that point at especially important aftermarket issues to deal with will be presented. With the perceived customers problems and needs as starting point, the section will go on presenting major dealer issues. Thereafter, we will see where the Toluca aftermarket organization and VTMX as a whole stand in terms of readiness to deal with the present and future situation.

7. Conclusions

This section will briefly summarize the gaps found between the current service level offered by the Volvo Trucks aftermarket organization and the customer needs. Suggestions on how to address the gaps will be presented, as well as suggestions on how to monitor customer satisfaction and customer loyalty in the future.

8. Suggestions on future research

Short about what areas could be analyzed further in future research projects.

3. Frame of Reference

Since the VTMX aftermarket division largely is a service organization, created to look after the continuous needs of the operating Mexican truck companies, this section aims to inform the reader about research and prevailing theories on service management, service marketing and customer relations. After a general introduction about aftermarket, a deeper introduction into theories on modern service management will be presented. The last subsection features a strong customer focus, and has a more applied approach than the previous.

"When one understands the customers' internal value creating processes – which might concern consumers, end users, suppliers and dealers – and is able to develop complete full service offerings that support these value creating processes, one gets a perspective that complies with the situation of competition that the vast majority of today's companies faces. This is the service perspective."

(Grönroos, 2002, back cover).

3.1 Aftermarket service

Hallström and Jönsson (1991) claim to have written the first Swedish book about what the aftermarket is, why the aftermarket has become important and how to design an aftermarket organization.

In Sweden, it was not until the 1990's companies began to realize the great importance of taking care of the customers after the sale of the product as a way to secure customer loyalty, but also as a way to increase the value of total sales. Until then, a common error was to forget about the customers one already had during the constant hunt for new ones. This short-sighted practice was carried out despite of the fact that it is much easier and less costly to develop sales to old customers than to new ones, and despite the fact that lost customers cause a bad company image.

The increasing competition during the nineties made it harder to keep the customers. Before, the aftermarket was seen as a necessary evil. The companies had an aftermarket function just because someone had to deal with the warranties. The warranty was there merely as a sign of product quality. Since one already had service staff working with the warranties, one could always help the customers after the warranty as well – if they asked for help.

These opening words will serve as a starting point for the following survey in the field. Luckily, much has happened since the time the warranty was the only relation to the customer after the sale. The following subsections intend to explain the processes involved in today's aftermarket activities. The reader will get familiar with theories of modern service management, and a fair amount is dedicated the concepts around relationship marketing and customer relations management. Further on, the text adopts a strong customer perspective. These subsections address the relation between customer satisfaction and customer loyalty, customer research and loyalty metrics, and the use of IT to enhance the customer experience.

Deliberately taking this approach, the author of this thesis hopes to open up a broader context in which aftermarket activities can be placed.

3.2 Modern service marketing

The views of marketing that will be presented in this section are clearly service oriented. They mainly build on the so called *Nordic School* within the service research area. According to this school, the traditional concept of marketing-mix is too limited. Instead, it assumes that the marketing function is spread out over a large part of the organization. Following this standpoint, strategic marketing planning can not be seen as separated from overall strategic decision making. Marketing is not even seen as a unique function at all, but as a process that concerns many company functions (Grönroos, 1996). We will now explore the ideas of the Nordic School and closely related research, thus from the beginning putting the emphasis on *customer relations*.

3.2.1 The appearance of the relationship approach

Services are inherently relation oriented. Marketing of services therefore builds on relations between the company and the customers more than traditional product marketing does. Relation based marketing as a phenomenon is as old as trade and business, but the actual concept of *relationship marketing* re-emerged in the 1980's, as a renaissance of what until the industrial revolution was the dominant method of convincing people to buy goods or services (Storbacka & Lehtinen, 2000).

Before the nineteenth century, there were no intermediaries between the seller and the customer. The markets were relatively local. A direct and good relation with the customer was natural as well as a must to succeed. The industrialization at the turn of the nineteenth century brought intermediaries between the producer and the customer, since distribution over larger distances was made possible. The industrial revolution thus increased the distance between the customer and the manufacturer. Growing groups of middle class consumers with fair financial capability now had to be persuaded in an efficient way. This development entailed certain new ways of marketing. *Transactional marketing*, i.e. when marketing activities focus on the exchange of values, was born (Grönroos, 1996).

This approach, which originally was adapted to consumer goods, had simply the objective of maximizing the number of transactions made. Automatically - some authors say unfortunately - this way of marketing was applied on services as well as on goods, the former of which was to become an increasingly important income source during the second half of the twentieth century. It was not until the 1970's the research about marketing of services emerged as an answer to the completely predominating transactional marketing.

Even long into the 1990's, especially Anglo-Saxon marketing literature based its models on transactional thinking (Grönroos 1996). Every marketing student during the latest 20 years has been confronted with the four P's (Kotler, 1984). The four P's refer to important parameters one has to think about when, above all, mass marketing a product. The *Product* has to suit the needs of the customers, the *Price* has to be right, the *Place* of sales and the distribution channels have to be proper, and the way of *Promoting* the product has to be well considered.

The four P's clearly aim at product marketing. Still today, Kotler's marketing-mix theory based on the four P's is widely used and can be traced even in present definitions of marketing. As an example, the definition of the American Marketing Association reads:

"Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives."[13]

Gummesson (2000) was in the 1970's one of the first to speak about marketing of services as different from traditional marketing, and the first to define relationship marketing as:

"…marketing seen as relations, networks and interactions".

He also changed the 4 P's for 30 R's, which was a rather meticulous division and structuring of relations.

There have during the transition from transactional marketing towards relationship marketing emerged numerous attempts to adapt traditional marketing ideas to services. Barnes (2001) brings the four P's back again, but with different content. He uses his four P's to better cover the needs of service marketing. See Figure 4.

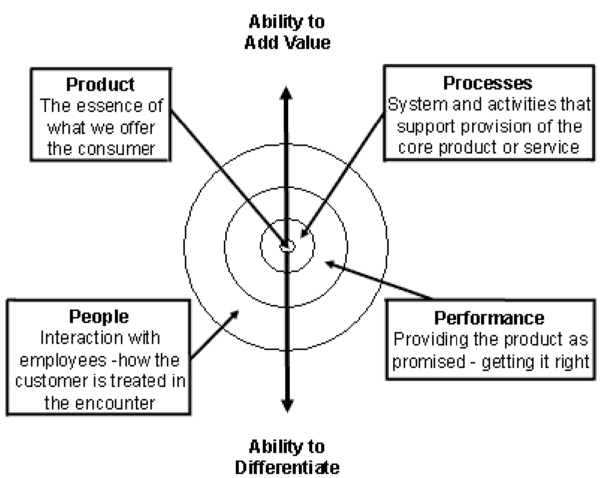

Figure 4. The four P's – A different view

Source: Barnes, James D. (2001). Secrets of customer relationship management

According to Barnes, the *Product* is the essence of what is offered to the customer. It still should have the important abilities to add value and to differentiate from other products sufficiently to attract the customer. The rest of the P's support the product. The *Processes* and systems of the supplier have to work for an efficient delivery of the product or service. *Performance* means to keep promises made. For example, a late delivery can decrease the customer's perception of the value. Finally, the *People* are crucial to the interactions with the customers. How do they perceive the supplier? Are the employees helpful, competent and polite?

[13] <http://www.marketingpower.com/live/content4620.php> March 10, 2004

3.2.2 The essence of the Nordic School

Grönroos (2002) summarizes the scope of service management and marketing from his point of view.

Emphasis is put on what he calls *the marketing effect*. With this he means that, especially in service companies, a large amount of the employees has frequent contacts with the customers, and all these contacts have an effect on the relations. It is the total of all customer interactions that counts. A great deal of the employees are therefore *part time marketers*, contributing to the total marketing effect normally to a much higher extent than do the few employees of the official marketing department and the sales department. The part time marketers can for example be technicians, support staff or receptionists. Of course, in most of the business relations of a company, it is the sales personnel that have a continuous responsibility for the customers. On the other hand, they can often not save a relation if a customer gets discontented with some service. Their role might be marginal in comparison with other specialist support functions.

The decisive meetings, when value is created for a company, consist of all customer contacts. Grönroos (2002) calls these meetings *moments of truth*. The central success factor for service organizations is to handle, all the time, the moments of truth in a proper way. From the customer's point of view, the only important thing is what happens during these moments.

The customers go into the meetings with certain *expectations* they have acquired through *promises* made to them by traditional marketing such as public relations, promotion, pricing, sales, Internet communication, and the like. The expectations will then be amplified or weakened in the customers' minds by their *previous experiences*, by *word-of-mouth communication*[14] and by the *image* they have of the company.

To be able to keep the promises made, the employees' capacity to fulfill them has to be assured. The ability and motivation of the employees to fulfill the promises improve by *internal marketing*. Internal marketing is nothing else than to create and maintain a *good service culture*, which for example includes that internal functions and people of the company treat and attend each other as were they external customers. It also includes active promoting of the company's products and services to the employees. This way the part-time marketers will be better prepared to keep the promises.

It is the responsibility of the *higher management* to conduct the internal marketing.

Empowering the employees will also increase the probability of keeping promises. Trusting the personnel in handling the customer contacts themselves, if they have the knowledge and motivation to face that responsibility, will result in fulfilling promises in an efficient and customer friendly way.

Grönroos (2002) further stresses the importance of backing up the employees with supportive systems and information technology. If it is hard to retrieve information about the customers from relevant *customer data bases*, or if the customer data is not

[14] All kinds of orally distributed values and opinions (the author's interpretation)

updated, then the employees will have problems giving the customers fast and correct service, and the information given can also end up being contradictory. A lack of supportive systems also causes negative effects on the company's internal marketing and is generally very frustrating.

Finally the *price of services* has an impact on the customer. This is nevertheless not always true according to Grönroos (2002), since many customers will be glad to pay a fair amount of money for example for a fast delivery of a spare part if he can avoid that his machine stands unused several hours.

Grönroos (2002) is not fanatic in any way, hailing relationship marketing in every single situation. A transactional marketing approach still works in situations where customers do not want to see their business as relations. Zineldin (2000), also point out that what he calls *offensive marketing*, synonymous with transactional marketing, is appropriate for obtaining new customers. Using offensive marketing can often lead to increased market shares by attracting competitors' dissatisfied customers.

Relating to the relationship marketing concept, Zineldin (2000) in addition stresses *defensive marketing* as appropriate when increasing market shares by focusing on the present customer base. By satisfying own customers, these will gradually turn their faces away from competing brands, stay loyal, and also spread a good image that helps achieving new customers. The basic argument to use defensive marketing is that the cost of obtaining new customers exceeds the cost of retaining existing ones.

Storbacka and Lehtinen (2000) are confident that companies have to work *actively* with *customer relationship management* (CRM). As is included in the relationship marketing idea, the objective of CRM is not to maximize the profit of every single transaction, but to create lasting relations with the customer. However, these authors additionally point out the importance of creating the relations *together* with the customers. The value of a relation is best when both parts can share the benefits of it. It then becomes essential to *support the value creating processes* of the customer to be able to get anything back. One way is to share competence, for example through training, to make the best use out of a product.

The supplier also needs to know how the customer thinks and to create confidence. As the authors say, the supplier wants a little share of the customer's thoughts and a little share of its heart to get a little share of its wallet.

Furthermore, when defining the interactions between a company and its customers, the *processes* involved *as a whole* is pointed out in preference to the expression "moments of truth", which stresses the importance of every single personal meeting. In connection with this, Storbacka and Lehtinen (2000) find the traditional conceptual division of products and services totally useless. The continuous process of a relation contains monetary transactions occasionally, but it actually does not matter if it is a product or a service in the traditional sense.

This latter issue of concept dividing is also addressed by Zineldin (2000) that states that as a matter of fact, usually, customers do not just buy a physical product or tightly defined service. They buy a product, associated services and indeed the whole relationship with the supplier. Zineldin (2000) has given today's product/service packages his own name; Prodservs.

3.3 From customer satisfaction to customer loyalty

Central to an organization's relationship management strategy is the ability to develop and enhance long-term customer relationships and to satisfy its existing customers. The main focus of such organizations is on customer satisfaction and customer loyalty, i.e. retaining customers and generating repeated orders. There is indeed a positive impact of customer loyalty and retention on company profitability. Retaining existing customers reduces the necessity of attracting new ones (replacement), and can even reduce offensive marketing cost (Zineldin, 2000).

Bhote (1996) examines why companies do not satisfy their customers. He shows numerous striking researches that shows the ignorance and low priority of customer satisfaction focus, even in leading companies. Many timers, not only employees but also the higher management have a lack of conviction that the main objective of suppliers is to create and nurture satisfied, repetitive, and loyal customers who have received added value.

3.3.1 The cost of dissatisfied and defecting customers

Bhote (1996) also presents studies from the Fortune magazine and the Forum Corporation that indicate the unacceptable costs of dissatisfied customers:

- Satisfied customers will tell an average of five other people about their positive experiences with a company's products or service.
- The average dissatisfied customer, however, will tell nine other people about a negative experience with a company's product or service.
- But 13% of dissatisfied customers will broadcast their unhappiness with a company's products and services to 20 others!
- And, worst of all, 98% of dissatisfied customers switch to a competitor

The *cost of* customer *defection* is therefore monumental not only because of their numbers today, but also because of the loss of these customers over their lifetime, and because they may turn other potential customers into non-customers. Not only because of the loss of such sales but because of even greater profit loss, since long-term customers generate much higher profits than one- or two-time customers.

This is why Bhote (1996) says that customer satisfaction is not enough. You should *delight* your customers to be able to keep them. He cites the renowned quality guru Edward Deming:

"A merely satisfied customer will go elsewhere when a competitor cuts its prices!"

If a customer is rating a company on a scale 1-5, where 4 is "Satisfied" and 5 is "Very satisfied", even a significant percentage of satisfied customers (who give a 4) become defectors the moment the competition offers a lower price or other perceived benefits. These customers account for 10% to 50% of the company's customer base (Bhote, 1996).

3.3.2 The importance of customer loyalty in highly competitive markets

This subsection is intended to show how the competitive environment can affect the relationship between satisfaction and loyalty to a company.

In "Why satisfied customers defect" (Harvard Business Review, November-December 1995), Thomas O. Jones and W. Earl Sasser Jr., examined over 30 companies in five markets with different competitive environments and different types of customer relationships (Bhote, 1996). The five markets were automobiles, personal computers purchased by businesses, hospitals, airlines, and local telephone services. The metric for the customer loyalty was the customers' stated intent to repurchase products and services. Figure 5 depicts the influence of varying degrees of competitive forces on the satisfaction-loyalty relationship.

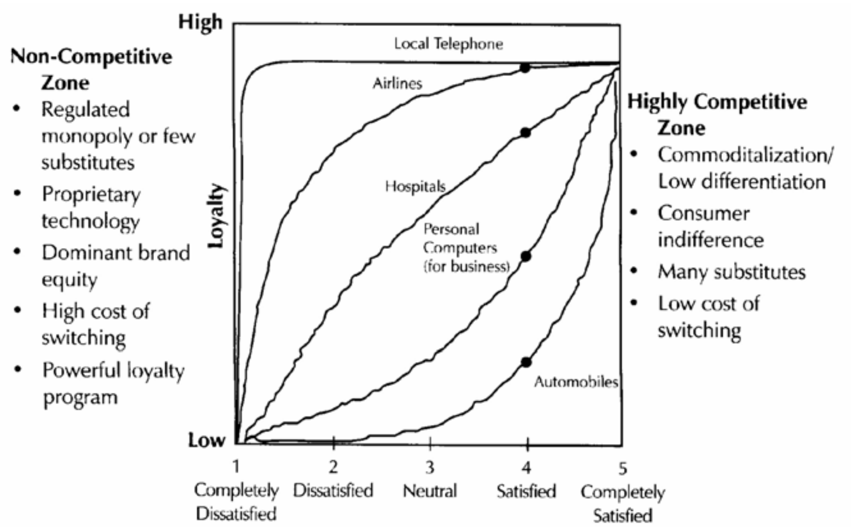

Figure 5. The relationship between customer satisfaction and customer loyalty for different degrees of market competitiveness

Source: Bhote (1996)

The curves shown in Figure 5 represent the different markets and how customer satisfaction is related to customer loyalty for each one of them.

The characteristics of highly competitive markets are:

- High availability of alternative products and services
- Low cost of switching to the competition
- High availability of substitutes

The automobile industry was found to be a highly competitive market compared to the others.

The characteristics of non-competitive markets are:

- Actual or virtual monopolies
- Regulated industries
- Proprietary technology
- The near impossibility of switching to competition

Towards this extreme were found the local telephone companies and the airlines.

The study revealed that for the automobile industry, customer loyalty had a drop ratio of 1:4.5 between very satisfied customers to just satisfied customers. This means that only 22% of the previously very satisfied customers would stay loyal to the automobile model if their satisfaction were lowered to just satisfied.

On the contrary, the local telephone services indicated that customer loyalty would remain almost 100%, regardless of any level of dissatisfaction or satisfaction.

3.3.3 Keys for customer loyalty and retention

Bhote (1996) listed six keys for customer loyalty and retention:

- A top management conviction that the main objective of the company is to add *value* for a customer – by improving its quality, cost, cycle time, service, competitiveness, profit, or a combination of several of these items.
- Making customer loyalty and retention a key long term strategy.
- Appointing a Chief Customer Officer (CCO), who should be second only to the CEO in importance, to represent the customers' point of view within the company. If a company can have a CEO (Chief Executive Officer), and CFO (Chief Financial Officer), why not a CCO? A mere ombudsman will not do.
- Having *all* senior managers spend at least 20-25% of their time with core customers.
- Making customer retention as important as goal achievement and sales growth in determining the compensation of senior managers.
- Creating happy, productive employees through real empowerment – not just token empowerment, as happens in most companies that mouth it – as a best way to create and retain happy customers.

3.3.4 Ways of conducting customer research. Customer loyalty metrics

Bhote (1996) rates different ways of conducting customer research. Based on its effectiveness, on a 1-10 scale, he rates the following methods with an 8 or more:

- Top management customer visits (8)

The best feedback comes not from top management talking to their CEO equivalents in the customer company, but from sincere discussions with people in the trenches who deal with the company's service or product on a daily basis.

- Soliciting former customers, i.e. defectors (9)

The principal reason for soliciting customers who are leaving is to win them back. Successful companies can recover at least 50% of such defecting customers. Defecting customers are usually able to articulate their reasons for leaving, and skillful probing can determine the root cause.

- Inputs from customer-contact personnel (8)

Customer-contact personnel inputs are important for identifying customer requirements and they are absolutely essential in assessing customer satisfaction. As far as customers are concerned, frontline employees *are* the company

- One-on-one interviews (9)

This is the most expensive and time-consuming approach, but also the most productive. It should always be used with core customers. Such customers deserve individual attention, with in-depth attention. The people interviewed at the customer company should be those who actually use the product or services. The interviewers should be members of the supplier company's senior management; an alternative is to use outside agencies or consultants, with whom customers are more likely to be completely straightforward. These one-to-one interviews should be frequent to keep the supplier company's finger constantly on the customer's pulse.

Interviews generally continue until key responses are consistently repeated and until unique responses describe exceptional or unusual customers' responses. This is likely to happen after about 12-15 interviews.

- Mass customization (10)

Mass customization calls for a customer centered orientation in production and delivery processes – this requires a company to collaborate with individual customers in designing each one's requirements.

- Learning relationships (10)

Learning relationships are derived from mass customization. They provide the cement that holds customers and a company together – for life. In learning relationships, individual customers actually coach a company more and more about their preferences and needs, giving it a powerful competitive advantage.

Bhote (1996) also rates different customer loyalty metrics in the same fashion. The following methods are all given the highest rating (10):

- Defection rate

  The number of customers who have defected as a percentage of the total number of customers. Any number over 10% should be cause for pushing the panic button. Those customers that should be eliminated (i.e. costly customers that are not wanted) are not included in this metric.

- Amount and continuity of core customers

  An assessment by numbers, by dollars, and by time

- Longevity of core customers

  The total sales of long-term customers over several years

- Value to core customers

  The dollars saved to core customers in terms of quality, cost, cycle time, productivity, etcetera, (especially over time). Preferably, this metric should be developed in conjunction with the customer. It promotes mutual loyalty and mutual profit.

3.3.5 New ways of securing loyalty and enhancing customer experience

What more strategies can be used to retain customers in the twenty-first century?

Neither Storbacka and Lehtinen (2000) or Grönroos choose to confront today's importance of information technology to support customer relations, even though Grönroos (2002) mentions the importance of supporting systems for the personnel, especially adequate customer data bases.

Zineldin (2000) chooses to dedicate one chapter of his book on the impact of IT on relationship marketing. The Internet and related information technologies such as intranets, extranets and EDI (Electronic Data Interchange) are discussed.

EDI is a technology for facilitating information exchange between channel members. EDI involves the paperless transmission of information exchange between manufacturers, suppliers, and retailers. These paperless transmissions include sales data, purchase orders, invoices, shipment tracking data, and product return information. Quick-response (QR) logistics and inventory systems use EDI applications to automatically replenish stock as it is sold. QR systems also build customer satisfaction by reducing stockouts. A high level of commitment between channel members must exist throughout a logistics pipeline for QR to operate.

Seybold (2001) discusses the importance of delivering a seamless customer experience across channels and touchpoints. A channel is for example a dealer selling the products and services, and a touchpoint is defined as any possible point of interaction for a customer. With seamless is meant that the customer should be able to experience a product or a service exactly in the same way, regardless of if he walks into a dealer, if he picks up the phone, or if he enters a webpage. The various ways a customer can interact does not mean he accepts different pricing. On the contrary, he expects to see the same price wherever he enters.

These days, the Internet has become an important touchpoint in practically all businesses. But what happens if a manufacturer that always has been depending on its dealers as its only touchpoints, wants to make its products available over the Internet? The dealers are paranoid about ceding any of the customer relationships it has to the manufacturer for fear that the manufacturer now is going directly to its customers, cutting the dealer or retailer out of the relationship and hence the profit margins.

Seybold (2001) studied the British automobile company Vauxhall that was pioneering the business of making cars available for purchase over the Internet, thereby bypassing its dealers. The Vauxhall story turned out good, since the company realized the channel conflict in advance and spent a great deal of time convincing the dealers that the new way of making business would not cut them off. The solution was to give the dealers commissions on Internet sales in their geography, just like for ordinary sales, but a little lower since storage and selling costs were lowered. The dealers were also convinced by the Vauxhall management that they would actually save time not having to persuade the customers personally in their installations before the sale.

4. Method

In this section the reader will first learn about some theory of research, including common approaches, common methods, and about reliability and validity. Then the process of choosing the appropriate methods for this project will be accounted for. Finally, we will see more in detail how the specific methods and techniques chosen were applied during the research.

4.1 Theory of research

4.1.1 Common approaches

There are two major and well-known approaches to make use of in scientific research, referred to as *qualitative* and *quantitative*. Often methods used are a mix between the two. The concepts are straightened out by various authors.

Quantitative studies should be performed if numbers, frequencies or percentages are desired, often to evaluate the opinions of large groups of respondents (Trost, 1994).

Qualitative research, on the other hand, aims at trying to understand peoples' ways of reasoning or to distinguish various patterns of acting (Trost, 1997).

4.1.2 Common all-embracing methods

Tellis (1997) has made an introduction to *case studies*. He cites Yin (1993) that lists several uses of case methodology, for example *explanatory cases* that are suitable for doing casual studies. Case studies can consist of several different cases, or only one, and can consist of qualitative as well as quantitative research.

4.1.3 Common data collection methods

Qualitative data collection can for example consist of daily personal conversations. Trost (1997) refers to Bott (1957), who talks about *incognito interviewing*, where the researcher interviews a person without that person knowing that an interview actually is performed. Sometimes the interviewer might not even know himself that he was interviewing until afterwards, when he uses the material in his papers.

Another common method that can provide qualitative data is to apply *personal interviews* with members of the organization. Trost (1997) writes about what he prefers to call *qualitative* or informal *interviews*. He uses two important concepts to classify how the interview is performed. The level of *standardization* determines to what degree the questions asked are the same, to what degree they follow the same order, and to what degree the situation and environment are the same for all interviewees. With a low level of standardization, the variation of the answers tends to be large. The level of *structure* is the other concept used by Trost, and he stresses that it is often, according to Nordic methodology literature, defined as the degree of fixed answering options during the interview. If the interviewee has ample possibilities of choosing the way he wants to give the answers, the interview has a low level of structure.

Yet another qualitative data collection method is *participant observation*, i.e. to participate in the daily work of for example an organization one wants to investigate. Pure participant observation is rather time consuming since the researcher has to follow individuals closely in their daily tasks. The information - time ratio is small. Another problem with participant observation is that the researcher could well alter the course of events as part of the group, which may bias the study (Tellis, 1997). An advantage with participant observation is that the researcher usually achieves very detailed information and a deep understanding of problems.

Some examples of quantitative data collection methods are laboratory research or different kinds of *surveys*. Quantitative methods are common in our daily lives. The reader might for example have seen the "question of the day" at many newspaper websites. This kind of surveys is always rather simple and the questions are often populistic, but nevertheless it is a kind of quantitative, on-line survey, where the respondents instantly can access the current results. Other quantitative methods can for example consist of surveys through carefully designed *questionnaires*, intended to result in measurable data for more serious scientific research. When conducting quantitative research, it is especially important to relate the selection of respondents to the aim of the study (Trost, 1994).

4.1.4 Analysis methods

Analyzing qualitative data is by many people perceived as rather hard. Tellis (1997) cites Miles and Huberman (1984), who suggested analytic techniques such as rearranging arrays, placing the evidence in a matrix of categories, creating flowcharts or data displays, tabulating the frequency of different events, using means, variations and cross tabulations to examine the relationships between variables, and other such techniques to facilitate analysis.

Chenail (1995) suggests juxtaposition as a way to enhance the analysis of qualitative data. By this he means that one should annotate the collected data and contrast it to relevant previous studies, i.e. triangulating the data with literature as a way of validating the observations. He also suggests different presentation techniques, e.g. in what order one can present the data to make it clearer. These techniques include, for example, putting the simplest data first and the hardest last, or to present most important data first and least important last, or to adopt sophisticated storytelling.

The mission of Yin (1994), also cited by Tellis (1997), was to encourage researchers to make every effort to produce an analysis of the highest quality. Doing so, the following four principles should be adopted:

- Show that the analysis relied on all the relevant evidence
- Include all major rival interpretations in the analysis
- Address the most significant aspect of the case study
- Use the researcher's prior, expert knowledge to further the analysis

Yin also states that in very complex and multivariate cases, the analysis of a case study can make use of pattern-matching techniques.

4.1.5 Reliability and validity

These two concepts are used as an aid to evaluate the quality of a study.

If a study is to have high reliability, the methods used have to measure in a stable way. Random influences are not allowed. That is, from one measure to another, no differences should occur. Questions are asked exactly the same way and the situation and environment should not differ. A good sign of high reliability is when one person is able to conduct the research in the same way as another, at different times. The importance of high reliability becomes especially obvious for quantitative studies (Trost, 1994).

If a study has high validity, is succeeds in measuring what is intended to measure. (Trost, 1994)

4.2 Evaluation and choice of methods

If we return to the purpose of this thesis, we remember that it would intend to empirically identify gaps between the current service level offered by the aftermarket organization investigated and the actual aftermarket needs of Mexican truck customers. It would also intend to give proposals of improvements within VTMX and proposals of strategies to continuously monitor customers' satisfaction with truck aftermarket services, based on appropriate theoretical approaches.

With the purpose of the thesis in mind, what kind of all-embracing method could be used? What kinds of data collecting methods were feasible to discover possible disproportions in the VTMX organization? And, additionally, what matching methods of analysis could be useful?

4.2.1 The process of evaluating data collection methods

Originally the aftermarket director had the idea of only performing one large, quantitative survey by means of a questionnaire directed to the customers. This was definitely an appealing option, since the feedback from the customers – provided asking the "right" questions – would give valuable information about their perception of Volvo and the dealer net. It was also a method that was viable considering the limited time available at the location; the author had the opportunity to perform field studies directly from the Toluca office, but only during less than three months.

But would a questionnaire be enough to fulfill the task? Maybe a deeper knowledge about the VTMX aftermarket organization and the dealers was needed to be able to design a questionnaire that would make sense to the investigation, but also in order to understand the answers of it. A complementary initial study would not only support the design of the questionnaire, but also directly add value to the investigation as a whole. It would also give ideas of useful future evaluation methods for the aftermarket activities.

Without doubts, the employees' roles as *part time marketers* (Grönroos, 2002) were significant, considering the independent status of the Toluca aftermarket organization and the kind of customer oriented work involved. One approach that could be applicable was to carry out participant observation of the employees. Since

the author would be able to occasionally observe and participate in some of the staff activities in Toluca, this method would be feasible to a certain extent.

Considering what part time marketers actually mean, i.e. people that are not professionally working in a formal marketing organization but still are part of many important customer interactions, the *dealers* would be the *most important part time marketers* of Volvo Trucks in Mexico. A qualified guess would be that the dealers counted for more than 90% of the customer interactions. With such circumstances, it seamed reasonable to also direct the attention of the research to the dealers.

How about some complementary qualitative interviews, covering the organizational structure of the Volvo aftermarket activities, all across to the customers, but with the focus towards the dealers?

Interviews with the employees would be easy to accomplish, since they all worked close to the author. They would provide a quick and useful insight about the way the aftermarket organization works and an introduction to the Mexican truck market terminology. And they would reveal information about the dealers.

Interviews with the dealers would also be relatively fast and easy to execute in relation with the valuable information they could offer. Many employees within the aftermarket staff travel a lot with car to attend dealers and customers. Thus, interview appointments would not be an issue.

The same circumstances were valid for the customers. They would also be easy to reach through the employees, and they would give feedback on the dealers.

4.2.2 The methods finally chosen

Since this thesis' character is explanatory, i.e. it aims at explaining the functionality of an aftermarket organization, the all-embracing method chosen was a *single case study* of the functionality of the VTMX aftermarket.

To render possible an understanding of the problem, the data collection methods finally chosen were *qualitative, cross-level interviews with employees, dealers and customers* with special focus towards the dealers, supported by an on-the-surface *participant observation* of the aftermarket staff. It was also decided to follow up with a *quantitative questionnaire survey* as suggested by the aftermarket director, addressed exclusively to the customers and contributing with an important quantitative picture of the needs of the customers and their perception of VTMX and the dealers.

Considering the large amount of qualitative data that would be collected during the interviews, *matrix technique* and *tabulation of frequencies* were chosen as a way to present data and thereby facilitating the analysis. For the mere analysis, triangulation would be used to relate collected data with relevant literature for the aftermarket, and *pattern-matching* to facilitate conclusion drawing

As a complement to the major research methods chosen, it should be mentioned that incognito interviews, home page bench marking, studies of corporate information and external literature also contributed to the conclusion of this thesis. They will only not be described more in detail as will the conduct of the interviews and the questionnaire below.

4.3 Conduct of interviews

12 qualitative interviews were conducted; four with key aftermarket employees, four with different dealers' representatives, and finally four with different customers, in the mentioned order. The decision to meet with four persons in each group was a consideration between the time available and a wish to receive enough information.

The selection of dealers and customers was made on a practical basis, i.e. the trips made by the aftermarket staff in October 2003 were decisive for the choice.

All 12 interviews were performed within three weeks. They were held in the interviewees' native language, Spanish, and usually took between 20 and 40 minutes. They had a *high degree of standardization* in the sense that they were performed in the same way. They all started with a presentation of the author of this master thesis, followed by a brief description of the purpose of the investigation. Then the interviewees would be assured of the confidentiality of everything they said, including their anonymity, and be asked of permission to record the interview with a tape recorder. Interview guides served as support. The author strived to perform the interviews in somewhat secluded rooms to avoid the disturbing noise that is common close to the truck shops of dealers and customers. Identical questions were asked within each group, and they followed the same order.

The person interviewed could freely elaborate his answers of the questions, thus the interviews had a *low degree of structure*. The interviewer interacted only to ask complementary questions on the same theme or to keep the conversation within the marks of the interview guide.

The reason to choose a low degree of structure and a high degree of standardization was to make possible both internal and intermediate group comparisons at the same time as not hampering the free answers by intervening too much.

The high level of standardization comprised asking similar questions to the different groups. This would facilitate to use *pattern-matching* between their opinions to verify the problem picture. Table 1 shows the questions asked to each group.

Table 1. Questions asked to each group of interviewees

Question / Group	Question
1 / Employees	What do you do within Volvo Trucks in Mexico?
1 / Dealers	What do you do within your dealer installation?
1 / Customers	What do you do within your business?
2 / Employees	What major problems do you think the dealers have concerning their activities and business?
2 / Dealers	What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)
2 / Customers	What major problems do you have concerning your activities and business? (Internal? With Volvo? With the Volvo dealer?)
3 / Employees	How can Volvo Trucks solve the problems you have mentioned?
3 / Dealers	How can you as a dealer solve the problems you have mentioned?
3 / Customers	How can you solve the problems you have mentioned?
4 / Employees	What do you think are the real problems and needs of the Mexican customers of trucks?
4 / Dealers	What do you think are the real problems and needs of the Mexican customers of trucks?
4 / Customers	Here I have some brands of trucks. (Kenworth, International, Scania, Freightliner, Volvo) Could you please mention some characteristics, negative as well as positive, for each one of them? Please consider the product as well as the offered services, and the image you have of the brands.

The first question served as to get acquainted with the interviewee and his role in his organization. One reason to start with such an open and general question, where the interviewee is very free too tell about himself, also makes him more comfortable with the situation and it opens up for a trustful interview at the same time as it gives basic input for a better understanding of the rest of the answers (Trost, 1997).

Question number two aimed at VTMX's major customer touch point; the Volvo dealer. The reason to this was to get a picture of the functionality of the important interface between Volvo and the customers, and to reveal any possible internal problems that affect the relations to the customers. Thus, both employees and dealers were asked to give their point of view of the most common problems at the dealers. The customer group was asked what internal problems they had themselves as well as what problems they had related to Volvo and to the Volvo dealer. Therefore all three groups had the chance to give their point of view of the dealers.

Question number three asked each interviewee how his own organization could solve the problems he had mentioned. This approach would hopefully result in some self-examination solutions, not only blaming others. The solutions mentioned would also be valuable for the thesis' final recommendations.

Question number four was identical for the employees and the dealers, and was intended to get their view of what they thought were the problems and needs of the Mexican customers. Since the customers already in question number two would tell about their problems, it would be possible to make comparisons between all three groups on this issue as well. Any disclosures of the problems and needs of the customers would also help to ask proper questions in the questionnaire, which was to be designed and launched to a larger group of customers later on.

Question number four to the customers was designed to get an early indication of what opinions they had about various brands of trucks in the Mexican market. The question was also deliberately developed to get information about what attributes of the trucks that would be worthy asking about in the questionnaire.

4.4 Conduct of questionnaire

The questionnaires were sent out to a larger group of Mexican trucks users, by the means of emails containing a link to a web site. The author and the aftermarket director agreed in an early stage upon performing the survey electronically, since the use of the Internet and email had increased lately among every kind of business in Mexico. It was also decided to buy the survey services from a well established e-survey provider, the San Francisco based company Zoomerang.[15] This would allow for an easy and standardized design of the questionnaire, easy distribution, automated data collection and data storage, and presentation of the results online in an easy-to-read format.

The questions had to be easy to answer, and the answers returned should provide information about the *customers' satisfaction* with Volvo compared to its competitors. The truck industry could be considered as relatively competitive, and so, referring

[15] <http://www.zoomerang.com> November 10, 2003

to the theories of *customer loyalty* as described by Bhote (1996), it would thereby be possible to see evidences of the degree of loyalty among the customers. Would there be many *very satisfied* customers, giving evidence of loyalty, or just a few?

The aftermarket director had seen a concept of asking for not only the customers' satisfaction with a certain area for a certain brand, but also what areas are perceived as the *most important*, admitting to focus future organizational improvements on the right attributes. Having such numbers at hand, it would be possible to calculate a *Customer Satisfaction Index (CSI)* for each brand, as described by Bhote (1996).

Figure 6 shows a generic model of how to calculate the CSI.

	Importance (I)	*Co. Rating (R)*	*Co. Score: (S)*	*Competitor Rating (CR)*	*Competitor Score (CS)*
Requirement	*Scale: 1–5*	*Scale: 1–5*	*(S) = (I) × (R)*	*Scale: 1–5*	*(CS) = (I) × (CR)*
Quality (upon receipt)					
Reliability (within warranty)					
Durability (lifetime)					
Serviceability					
Up-time (% use)					
Tech. performance					
Features (that sell)					
Safety					
Human engineering					
Reputation					
Sales cooperativeness					
Price					
Resale price					
Delivery					
Total Score	Sum of (I) = (Y)		Sum of (S) = (T)		Sum of (CS) = U

Customer Satisfaction Index (CSI) expressed as a percentage:

a) For Co: $= \frac{T}{5Y} \times 100$

b) For competitor $= \frac{U}{5Y} \times 100$

Figure 6. Customer Satisfaction Index (CSI) calculation. Generic Model. Source: Bhote, (1996)

To determine the overall CSI, the importance numbers in column two are totaled (Y), as are the scores in column four (T); the overall index for customer satisfaction is expressed as a percentage: T/5Y x 100. (By multiplying the sum of the importance numbers [Y] with the maximum rating a company can receive [5], a maximum possible score [5Y] is achieved against which the actual performance score can be compared. Maximum CSI is 100%.)

A CSI for a company of 50% or less would signal a looming crisis. A CSI of 80% or higher would be a sign of robust customer health (Bohte, 1996).

It was decided to use this concept of having the customers both assessing the importance and the satisfaction of different areas in the questionnaire.

The questions turned out to be quite a few, not only treating the aftermarket area. This was mainly the result of the aftermarket director's wish to also include other categories that would be interesting, from a general perspective. The questionnaire therefore finally embraced three sections; questions about the truck itself, financial aspects, and after sales services. With the inclusion of some orienting questions, whose answers would help to analyze and classify the rest of the answers, the total number of questions reached 59. The complete questionnaire, translated to English, is presented in Appendix 2.

4.4.1 The difficult task of finding target group respondents

The target group for the survey was persons influencing the acquisition of new trucks. The selection of this target group was based on the fact that these persons generally have a good overall view of different truck brands, including the functionality of the truck itself but also how the aftermarket services of each brand is functioning.

What turned out to be quite a challenge was finding email addresses to the target group. At the time being, it seemed like it was not possible to access a Volvo *customer data base* from Toluca. Therefore, the author asked for a list to be provided from Santa Fé. While waiting for this list, is was possible to get a hold of a list of members of the organization ANTP (Asociación Nacional de Transporte Privado).

ANTP is a Mexican association of companies that have their own fleets of trucks, airplanes or other vehicles to transport their products. It would be fruitful to invite truck owners within the ANTP even if not all of them had Volvo, since all mayor brands were of interest to be evaluated. What was especially useful was that the ANTP list contained email addresses to persons influencing the acquisition of new trucks, which was exactly the desired target group. The survey could therefore relatively quickly be launched to this group of respondents. The launch date was the 25 of November.

When the list from the sales department in Santa Fé arrived, it did not contain more than the name of the customer company, their postal mail addresses and their telephone numbers. The author then had to call every customer to ask for the email to the right person. This turned out to be a time consuming process, since the majority of the telephone numbers were wrong. A recent big national change of the area codes had not only changed the area codes, but also the configuration of the whole number. Finally, the 5 of December, there were enough respondents to launch the survey to this second group.

4.4.2 Testing the questionnaire

Before the launches, the questionnaire was tested on the four key employees previously interviewed, and one key customer. The feedback was overly positive. Only one employee thought there were a little too many questions. None of the persons took longer than 10 minutes to complete the survey.

Some minor adjustments had to take place from the feedback gained during the tests. The aftermarket director also revised the questions before the launch.

5. Empirical Results

Starting on the next page, the reader will see the results of the empirical part of the study. An account of the present VTMX aftermarket commitments comes first. Thereafter, the dealers' and the customers' situation will be described.

5.1 The presentation of the empirical data

A complete compilation of the *interviews* is presented in Appendix 3, which represents what each employee, dealer and customer answered to the questions. It does not contain exact quotes, but very detailed translations from the tape-recordings and notes taken. It is the essence of what the interviewees said. Readers that are interested in subtle details should definitely review Appendix 3.

However, to make the results of the interviews easier to grasp and to give the reader a fair chance to see patterns among the answers, the following subsections will summarize the observations.[16] Frequent comments and comments that are closely related to aftermarket activities or customer relations will come first and be described thoroughly. Quotes are used where appropriate for the sake of clarity. Less important comments will be mentioned last, or not at all. The frequency of different opinions, i.e. the number of interviewees that expressed a similar or identical opinion, is presented by means of brackets, for example [3].

The observations from the *questionnaire* will be presented taking into account the data's quantitative character. This means that participation, respondent profile and response rates will be accounted for. A complete compilation of the questionnaire results is presented in Appendix 8.

5.2 Reliability and validity

The results' validity is considered to be relatively good. The methods chosen have relatively well succeeded in investigating the reality according to the objectives, taking into account the aspect of limited time. With more time available, it might had been appropriate to increase the number of interviewed dealers to be able to find more correlating evidence to the opinions of the employees.

The reliability of the interviews should be put in the light of the language skills of the author. Although he had a good Spanish level through one full year of studies in Spain, and although the tape recordings of the interviews were listened to many times to secure good interpretations of the conversations, the transformation from the original Spanish comment via a Swedish interpretation and finally the translation to English might have had an impact. The reader is free to put this background in relation with the empirical findings accounted for.

The same issue regarding language skills is also valid for the questionnaire. The statistical reliability of the questionnaire is accounted for in the section "Summary of the customer questionnaire"

[16] Non-reduced compilations are also available in easy-to-read tables, enclosed as appendices.

5.3 Level of organizational commitment to the aftermarket

This subsection summarizes relevant parts of the first employee interview question, but also builds on participant observation, studies of corporate information, and incognito interviews. It shows how the formal aftermarket organization deals with its role, but also the customer relation commitments of VTMX as a whole.

5.3.1 Aftermarket organizational structure

To support the dealers, the aftermarket functions have been organized according to Figure 7. It should be pointed out that this is the actual configuration as interpreted by the author; not the formal structure shown in the VTMX quality manual. It is practically identical though, except that one function physically situated in Santa Fé has been added here since it has to do with dealer development, a vital part of the aftermarket activities. Please refer to Appendix 7 for the main assignments of the different aftermarket functions.

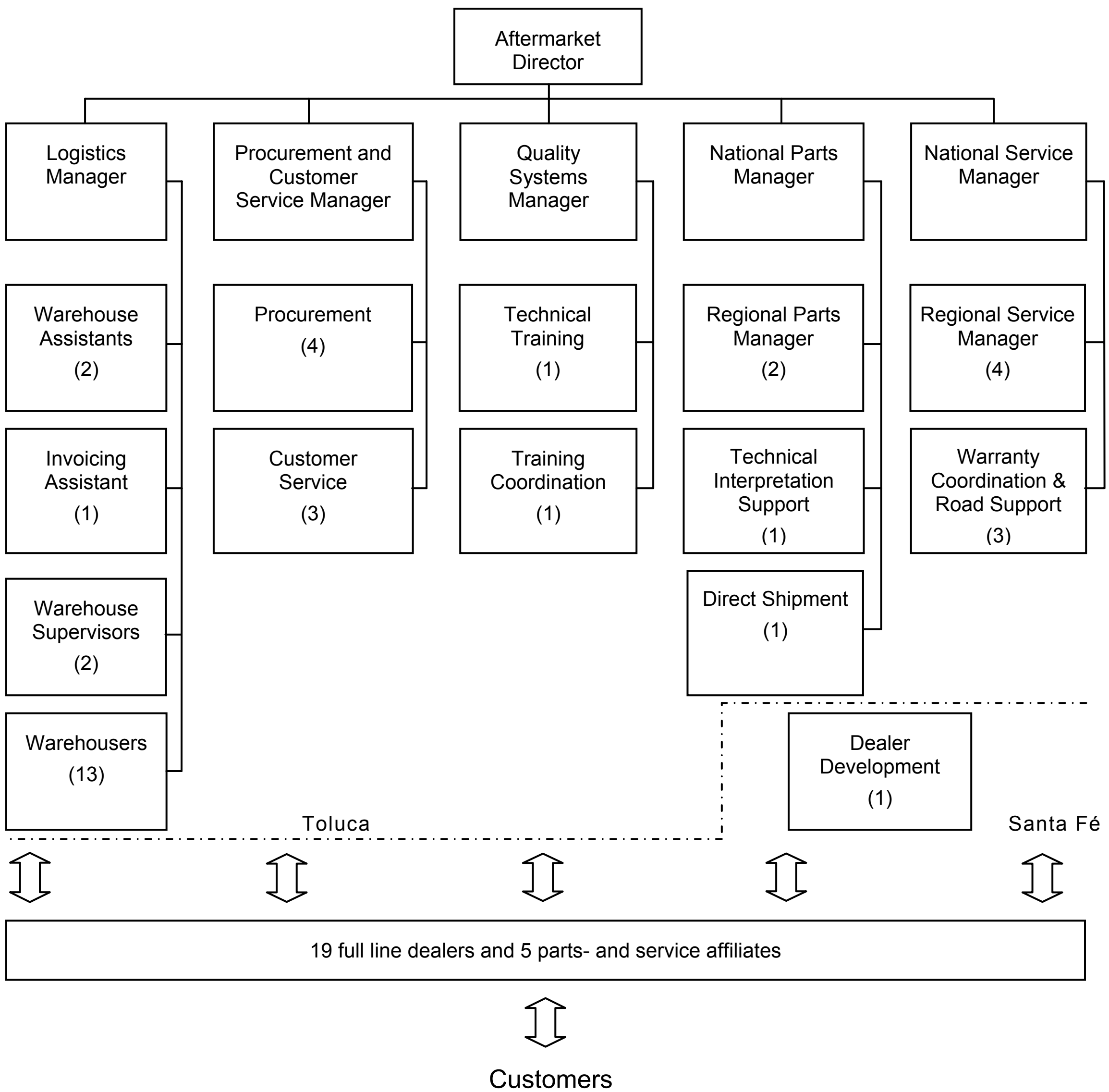

Figure 7. Actual aftermarket organization

5.3.2 Aftermarket mission and vision

The following statements are from the VTMX business plan for 2004:

Aftermarket Mission

To achieve customer loyalty with empowered people and capable systems and processes which support the customer's business and processes.

Aftermarket Vision

To be perceived through our customer's eyes as one of the best service companies, "Easy to Do Business with" in the Mexican automotive market as Volvo understands and satisfies their needs, achieving leading business results.

5.3.3 Commitments of the aftermarket employees

According to the aftermarket director, the overall strategies to create durable customer relations consist of a continuous development of the dealer net, taking care of the necessities of customer training, and respecting the warranties and reclamations. To support the value creating processes of the customers, special agreements are sometimes signed to help customers organize their repair shops, or to conduct training courses for customer technicians and drivers on the proper maintenance and operation of the trucks.

The policy of the aftermarket organization is that the employees should support the dealers in their efforts to provide excellent services, following the norms established in a special dealer quality manual, DOS (Dealers' Operating Standard). It was introduced 2000 and is part of the ISO 9000 quality system. The employees put a great deal of trust in the use of the DOS-manual. It consists of seven different sections. The sections describe in detail how the dealers' administration, buildings, use of the Volvo brand, sales of new trucks, sales of service, sales of spare parts and environmental care should look like.[17]

Every six months the dealers' are evaluated, resulting in feedback on what areas of improvement they should focus on. Some dealers do not comply with the requirements put on them. Three dealers had been closed down for this reason. Many of the persons working in Toluca are involved in the assessments. The latest evaluation gave an average compliance of 60% for the seven sections, and a positive trend was seen. The objective is 90% compliance.[18]

As described, the dealers should be encouraged to provide the aftermarket services to the customers exactly the way Volvo wishes. But it is clearly expressed that the Toluca personnel should not intervene too much in their daily business. The customer interactions have to be done by the dealers themselves, creating good customer relations at the local level where they should be. The customer should trust the dealer.[19]

During the interviews, all four employees manifested, in one way or another, the importance of good aftermarket services. One argument to this was that aftermarket

[17] Employee 1
[18] Ibid
[19] Employee 2

sales offer a stable source of income for both Volvo and the dealers since customers have a continuous need for service and spare parts:

"Lately we have emphasized the importance of after sales activities. We want the sales of spare parts and repair shop services to cover at least 100% of the fixed costs, thus ensuring a somewhat stable business. The sales of new trucks should be considered as complementary income. Now, what happens with the dealers that, like in the past years of growth, focus on sales of new units? They are now, during the recession, facing big problems. The reason is they have left aside the important development of after sales products and services, the source of continuous income."[20]

Another employee argued for good aftermarket services as a way to improve relations and strengthen the bonds to the customers:

"I've heard that the large dealers think they can make money from the sales of new trucks, and that the sales of service and parts are a "bad must". This could not be more wrong, because it is through parts availability and good service you build up the confidence of the customer. Later they will come back and buy new trucks. There are some good examples though. One of the dealers, in Tuxla, had had such a long period of bad sales of new trucks. To survive, they had to concentrate on the aftermarket. That way they have developed good relations with the customers."[21]

5.3.4 VTMX higher management commitment

Every Monday morning, the aftermarket director and many of the group managers from Toluca travel to Santa Fé where they meet with the executive group to report and plan on aftermarket issues, but also to coordinate the overall VTMX management towards common goals. Participating from Santa Fé is the managing director for Volvo Trucks in Mexico, the Volvo Financial Credit director, the vice president of new trucks sales, and some other key functions of the organization.

Volvo Trucks in Mexico follows the same mission, vision, wanted position, quality policies and strategies as the Volvo Group as a whole. Those statements are therefore relatively general. But VTMX has developed its own, overall key performance indicators as one of its guiding tools. These are presented in Table 2.

Table 2. VTMX key performance indicators
Source: VTMX Business Plan 2004

Indicator	Measure
Total new truck sales	Number of units
Market Share in Class 8 Tractors	% Market Share
Share of truck sales with Volvo engine	% Engines in Units sold
Used trucks inventory	Days of sales
Total Receivables	In number of days
Total Operating Expenses	% over turnover
Truck inventory	Days of sales
Total Spare Parts Sales	Invoiced and delivered
Stock turnover in Spare Parts	Days of sales
Spare Parts fill rate	First read

[20] Employee 1
[21] Employee 2

5.3.5 Customer satisfaction evaluations

VTMX had during 2003 introduced a customer satisfaction survey, conducted by the new truck sales department in Santa Fé. The mission was to do a close follow-up of recent buyers of trucks in five different areas by sending them a short form and later supporting the conclusion by a telephone call. Two of these areas were after sales related, and the result for the survey in July 2003 can be seen in Figure 8.

Figure 8. The accumulated Customer Satisfaction Index (CSI) in July, 2003.
Source: VTMX, 2003

The two aftermarket areas measured were "Parts" and "Workshop". The evaluation of the parts services consisted of two questions;

- If you ordered a part from us since the acquisition of the truck, and the dealer did not have it – How did you find the lapse until you received the part?
- How do you consider the parts service?

The workshop question was:

- How do you consider the service executed by the workshop? (If utilized)

The Customer Satisfaction Index for parts was the worst of the five, 55%.[22]

VTMX color-codes the results for this survey. A rating of 1-2 (Very bad - Bad) equals a CSI of 1-40% and is given the color red. A rating of 3 (Regular) equals a CSI of 41-60% and is given the color yellow. A rating of 4-5 (Good – Very good) equals a CSI of 61-100% and is given the color green.

VTMX plans on continuing with this kind of customer satisfaction survey for 2004.

[22] Please note that this CSI does not take into account the importance customers give each category as the case is with the CSI previously described in the method section

5.3.6 Other customer research

At the time being, no systematic follow-up was neither being done for lost customers, for example through customer defection rates or personal interviews with the defectors, nor any systematic research to ask non-customers the reason for not being Volvo customers.

5.3.7 The use of IT

The spare parts order reception and order confirmations towards the dealers were done through email. No automated procedures were used for the continuous replenishment of the dealers' stock.

As indicated in the method section, no common CRM (Customer Relationship Management) platform was used to keep track of addresses, sales history, marketing results, warranties, training courses taken, and the like, for each single customer.

In fact, the people in Toluca used an integral system internally developed and centralized on a server, with possibilities of remote use. With this system, control of warranty claims and dealer performance was monitored.[23] During 2003, an Access database was also used for registration of highway rescuing actions, warranty issues and technical cases.

In Santa Fé, the new trucks sales personnel all had their own notes and individual knowledge about the customers, using another database.

The aftermarket director and the systems manager confirmed that a common Siebel CRM database was under the process of being taken into use. The problem was that still after several months, the personnel showed a poor discipline of introducing the data each one would contribute with.

[23] According to VTMX business plan 2004

5.4 The dealers' problems from the employees' point of view

This subsection summarizes the responses to the employee interview questions two and three, "What major problems do you think the dealers have concerning their activities and business?" and "How can Volvo Trucks solve the problems you have mentioned?" Please refer to Appendix 4 for a non-reduced overview of the answers.

The top three dealer problems mentioned by the employees were:

- Lack of spare parts in the dealer's stock [4]
- Decreasing sales of new trucks is impacting on the overall profitability of the dealer [3]
- Staff does not have enough knowledge [2]

5.4.1 Lack of spare parts in the dealer's stock

The problem with the lack of spare parts has appeared during the last years in some dealers' establishments, and has only one cause according to *all four* interviewees; *The lack of liquidity*. The shortage of money hampers the replenishment of the stock and thus the supply of spare parts to customers.

A couple of the interviewees explained the poor liquidity of the dealers with the prolonged credits they give to customers with insolvency problems. The transportation companies' insolvency was thought to depend on the present recession in the Mexican economy. The clients of the transportation companies also face insolvency problems. Thus, the transport sector suffers immediately, and the result is a vicious circle of payment problems. When the dealers run out of money, they can not keep their stocks filled.

Not only do the orders to the Toluca warehouse decrease, the dealers also many times do not pay for the spare parts delivered and are therefore in debt to Volvo Trucks. The situation has not improved when some dealers have started to decrease their debt by returning spare parts as payment. Consequently, they end up with even less spare parts in stock, and the result is very bad spare parts availability for the customers.

70% of the dealers had liquidity problems in October 2003.[24] Those were generally the old dealers, who were established before the introduction of the DOS manual. Some dealers had been operating only 1.5 years, and they were presenting good results. The dealer in Texcoco was said to be an outstanding success story; it performed well in all areas, and had a 94% compliance with the DOS assessment.

After June 2003, Volvo had to put an end to the absence of payments from the worst dealers and independent stores. The finance department in Santa Fé ordered to block the sales of spare parts to these dealers until they started to pay again. That is why Volvo, with this emergency action, had to face a sales decrease of spare parts in Mexico during June, July and August with 35%, 35% and 20% respectively. See Figure 9.

[24] Employee 4

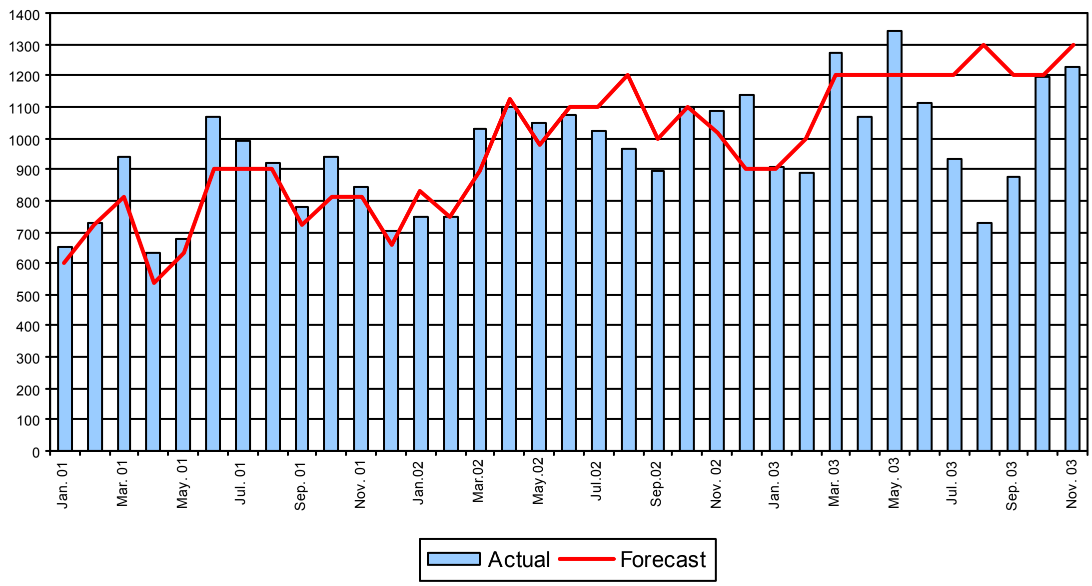

Figure 9. Volvo Trucks Mexico, volume development of spare parts (TUSD)

Source: Volvo Parts North America, Inc.

There were quite a few suggestions of remedies to the financial problems.

A couple of the interviewed suggested an introduction of a commissions (consignment) system to fight the insolvencies. That is, the dealers would not buy the spares from Volvo, just sell them. That way they would not be able to benefit from any margins, just receive commissions. Volvo would charge a percentage of the value of the parts, related to the costs for maintaining the control of them. The system would be seen as a penalty for not being good enough, and would only be maintained until the customers returned and the dealer business ran again.

There were also a few other suggestions, only presented by one interviewee each.

One was that Volvo would support refinancing programs between dealers and banks.

Another was to introduce a 1-800 toll free telephone line in Toluca, through which customers would have the chance to by-pass the dealer and buy their spare parts directly with a credit card.

Yet another cure, especially aiming at preventing the dealers from giving too long credits to the customers, would according to one of the interviewed be to introduce a debt limit. If any of the dealers break the debt limit, Volvo would quite simply stop the sales to that dealer. No such debt limit existed for the moment.

One could also try to convince the dealers to focus more on aftermarket sales to get them out of their crises, since such sales were supposed to be a more secure and continuous income source.

Another suggestion was to promote service of trucks of other brands in the dealers' repair shops, thereby adding income from non-Volvo owners.

Yet another was to put the trust in improved future sales of cheaper parts. Cheaper parts would be possible to achieve thanks to a better negotiation power towards the suppliers of Volvo.

5.4.2 Decreasing sales of new trucks

There were three employees that perceived that the decreasing sales of new trucks were a major problem for the dealers. All these interviewees thought this was caused by the high pricing of Volvo in comparison with the competition. The price becomes especially important when budgets are restricted, as during the present Mexican recession. Then the customers prefer cheaper trucks.

Two of the interviewees paradoxically thought another cause could be a far too big focus on sales of new trucks. The explanation to this was that many dealers had made the sales of new trucks their preferred source of income, especially the big dealers according to one of the employees. This strategy might work during good times. But when a recession strikes the industry, the dealer is not prepared to mitigate the decreasing income with their only alternative; well established aftermarket sales. The two interviewees thought this dealer problem was perceived as big, because there is such a noticeable effect on the dealers' bottom line results when a sudden cut in sales of new trucks occurs. A long term solution would be to continuously emphasize to the dealers the importance of aftermarket sales becoming a large part of their total income.

Two employees perceived that Volvo does not offer the Mexican market a truck model that is adapted to the largest part of the Mexican truck buyers – those buyers who are very cost minded and do not demand top quality. In order to increase sales of new trucks in general, Volvo would have to penetrate a larger part of the market with cheaper models.

5.4.3 Staff does not have enough knowledge

The reasons to this problem had various explanations. One was that the owners of the dealerships do not understand the importance of proper training for their shop technicians, spare part staff, and other administrative personnel.

Another stressed the turnover of personnel as a big causing problem. The staff quit before they get really acquainted with the products.

A third explanation was that the dealers abuse the free training support actually offered to the dealers by Volvo. They might sign up for a course, but then they do not show up, and they do not pay the resulting fine Volvo issues for not being present either. The one suggestion to solve the problem with the dealers abusing the training was to do benchmarking of similar situations in other countries.

5.4.4 Other problems

The following problems were mentioned by one employee each:

Stock obsolete

This problem also worsens the availability of parts. Old, useless parts occupy shelves where parts with acceptable turnover could be placed. The dealers' bad

planning of the replenishment of the stock was said to be the reason to this problem.

No business knowledge among dealer owners

Some of the dealers fail when it comes to basic administration, especially the ones that was contracted first, during the nineties. They sometimes do not even have a business plan. Special courses for the owners in basic business administration would be the solution.

Wrong business focus of the dealer

It was perceived that many large dealers think they can make money from the sales of new trucks, and that the sales of service and parts are a “bad must”. They often ignore the aftermarket needs, favoring the sales of new trucks. The interviewee thought it is through parts availability and good service you build up the confidence of the customer. He also knew examples of dealers that focus on the aftermarket and that they had good results.

Bad administration

In this case bad administration referred to general malfunction of the dealer operation. The interviewee had a firm approach and meant that Volvo internally has to straighten up the rules for the functionality of the dealers, but also that the rules should be applied firmly as well. Those dealers that do not fulfill the criteria will have to shut down.

Customers use their own repair shop

A big general problem was that the majority of the Volvo customers have their own repair shop. They only visit the dealer because of the warranty or if they made some special agreement with the dealer. To get more service jobs, a solution to this situation could be to sign outsourcing contracts with the customers where the dealers’ technicians go to the customer’s shop to do the work. This had already been tested successfully at some installations, where they even put up a stock of spare parts. The advantages for the customer are that there are always skilled technicians present, and that they save time when they do not have to travel to the dealer shop or call for spare parts.

5.5 The dealers' problems from their own point of view

This subsection summarizes the responses to the dealer interview questions two and three, "What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)" and "How can you as a dealer solve the problems you have mentioned?" Please refer to Appendix 5 for a non-reduced overview of the answers.

It is necessary to mention that one of the dealers almost did not have any problems at all. Therefore, it is practically only three dealers that contribute.

The two most commented problems were:

- Lack of spare parts in the dealer's stock [2]
- Customers try to get warranty on non-warranty parts [2]

5.5.1 Lack of spare parts in the dealer's stock

This problem was partly blamed on the dealers themselves and partly on Volvo.

Both dealers considered their own administration of the stock to be bad. This problem would according to both dealers only be solved by themselves.

They both also complained about the Toluca central warehouse not having the spare parts available when requested, although they had an understanding that Toluca can not keep all parts in stock, especially not those rarely ordered. One of them suggested that the truck-making companies should decrease the amount of choices between different brands of components in the trucks. This action would decrease the amount of spare parts and facilitate the administration of the parts considerably, according to the dealer.

5.5.2 Customers try to get warranty on non-warranty parts

Two of the dealers stressed that the customers are abusing warranties. When customers have their truck repaired within the warranty period, they sometimes also repair a non-warranty item. Afterwards they simply refuse to pay because they claim that the entire repair was warrantable.

The problem with the warranties would according to one of the dealers be improved by being as clear as possible and setting firm limits to the customers of what they can get on the warranty and what they can not.

5.5.3 Other problems

The following problems were mentioned by one dealer each:

Customers are not attended in a good manner

This problem was explained by three factors. A bad administration of the spare parts stock caused long waiting times for the customers. Then, the dealer's installation was not built according to Volvo's drawings in the DOS manual, and the customers would get lost already when they entered. Finally the interviewee

admitted that the dealer was giving priority to its sister transport company before external customers.

Volvo Financial Credit does not attend the customers well

The dealer believed Volvo Financial Credit (VFC) had a bad attitude. The lack of interest from VFC had been discussed among all dealers. VFC had been absent from the important direct interactions with customers. The dealer together with VFC should together attend the customers, but VFC had only been interested in spending time with customers that could pay. Those customers are few according to the dealer. Those who really need financial aid are more.

However, VFC had improved its behavior lately. At least the manager of VFC would "take off his suit" and come visiting the customers a little more frequently. The dealer guessed the reason to the bad attendance could be related to the dismissal of personnel at Volvo Financial Credit. No people, no attendance.
The solution to the problem would either be that VFC deals better with attendance, or to help the customers to look for alternative methods of financing the acquisitions, i.e. to look for other associates.

Overload of work

One of the dealers had this problem, caused by a shortage of personnel. The personnel left the dealer because of a very bad human resource management. The owner had 13 other companies in the same business group to take care of, and what he did for the dealer was often badly organized. The staff became tired of never knowing what to do. There were no objectives, no strategies, and there was a continuous lack of information. Additionally, the employer paid very low wages. These were the reasons why there is such a big turnover, according to the interviewee.

Dealer can not give fast help to highway emergency breakdown calls

One dealer that used the so called Nextel radio communication system internally in the shop could not receive direct phone calls from trucks in emergency situations. The reason was that their particular Nextel phones were not programmed to receive calls from the GSM cell phone net. This would sometimes make them loose half an hour when a truck stood broken in the highway.

Hard to administrate the stock because of the large amount of different brands of components offered for the trucks

As the trucks in Mexico are designed the "North-American" way, they can all have different brands of motors, transmissions, gear boxes, etcetera. The interviewee thought the unnecessary high amount of brand options made it difficult to maintain and administrate the stock. The problem would be eliminated if the truck manufacturers decided to just use one brand for the main components.

Customers do not pay in time for spare parts and service

Volvo's customers, the transport firms, are giving too long credits to their own customers. That is the reason they can not fulfill their payments to the dealers.
A couple of suggestions to get rid of the problem were mentioned. The dealer could

select new customers that have a sane economy. The dealer could also let the customers leave different kinds of securities on their acquisitions.

Decreasing sales of new trucks

The dealer held as responsible the recession in the Mexican economy. The dealer had had to cut the personnel in more than half during the last two years for the decreasing sale's sake.

Customers do not use the dealer's shop for technical service

The reason was the customers have their own shops. In order to convince the customers to use the services of the dealer, one suggestion was to give spare parts discount to important customers. This would have the risk of causing price wars between different dealers. The interviewee was well aware of this risk. Another less risky solution would be to let the dealer's technicians go and do the repair works in the shop of the customer for the same price as in-house.

Toluca staff shows a bad attitude when asking them for help with spare parts - they just refer to the spare parts binder

One dealer pointed out that they often get the short answer "Look it up your self". The dealer thought the Volvo staff should be more helpful.

Toluca staff provide incorrect or contradictory information

In some cases the Toluca staff shows uncertainty, giving incorrect or contradictory information.

Volvo does not pay the commissions to the dealer

The dealers sell new trucks and spare parts and get commissions on the sales. But this dealer had had to wait a long time until Volvo paid the commissions. The interviewee thought it was not reasonable that their sales manager had to go to the Volvo headquarters in Santa Fé and spend 1-2 hours begging for the commissions, and obviously thought Volvo had to improve the administration of the commissions' payments.

5.6 Customer problems and needs from the employees' and dealers' point of view

The reader will in this and in the next subsection get familiar with the problems and needs of the Mexican truck firms, but from different perspectives.

This subsection will re-present what the employees and the dealers thought, i.e. their answers to question number four; "What do you think are the real problems and needs of the Mexican customers of trucks?", while the next subsection will be dedicated the opinions of the customers themselves.

Below follows a summary of the comments. Quotes from Appendix 3 have been included in order to exemplify how members of the Volvo organization thought when they related to customer problems and needs.

The most common categories of problems were:

- Customers are not attended sufficiently or in a good manner by the dealer [One employee, two dealers]
- Transporting companies give their customers too long credits, causing themselves liquidity problems [Two dealers]

The most common categories of needs were:

- A total quality solution [Two employees, two dealers]
- Cheap trucks [Two employees]

5.6.1 Customers are not attended sufficiently or in a good manner by the dealer

Not all Volvo customers have access to a good dealer because of the relatively sparse Volvo dealer net. Then they will not be attended, which was pointed out as a problem by one of the dealers:

"The presence of dealers and affiliates in every single corner of the country would be desirable but is still not the case, which is understandable since Volvo only has been present on the aftermarket for six years. But we have to cover up better."

One employee thought there was a lack of personnel attending at the dealers:

"There is a lack of personnel attending the customers at some dealers. The customers are thus not assisted or given the time necessary."

Another dealer referred to their own situation:

"The problem for our external customers is that we give priority to our sister company.[25] As I told you, if I were them, I would not choose this service shop. They are not even attended with a real expo-shop."

[25] A transporting company that also was a customer of the dealer

5.6.2 Transporting companies give their customers too long credits, causing themselves liquidity problems

A couple of dealers mentioned the liquidity problems customers are facing as they give too long credits to their clients:

"The problem for our sister company, that also affects us, is that they currently give their customers very long credits, 90 days is not unusual. They finally run out of money."

"Customers have problems with liquidity because of long credits to their clients."

5.6.3 A total quality solution

Two of the employees thought that today's Mexican customers need a total quality solution. They are increasingly demanding in all areas.

"Today the customers are becoming very aware of total quality and total service. If they buy a spare part, they do not only look at the price, they ask how long it will keep, if it is easy to replace, if it will be easy to find again...Many people think that the customers still only look at the price. That is not true. Maybe only about 30 % think this way, those who have trucks older than 1990. The rest of the customers want a good price, a fast delivery, good quality and today, additionally, consignment. They want to dedicate themselves to transportation, nothing else."

"A nice-looking product, an accessible product, financial solutions, good service, and a good treatment. This is a global tendency."

The total quality aspect was also mentioned by two of the dealers, one of which held the importance of good aftermarket service as a critical success factor:

"Excellent attendance, service speed, quality, and that we can give them 60 days of credit"

"Customers need good overall service. It is especially important to give aftermarket attention. Then the customers will come back. After sales services should simply be magnificent"

5.6.4 Cheap trucks

Two of the employees stressed that the customers need cheaper trucks:

"If the drivers sweat because there is no air condition and quit work because of that does not matter. There will be 15 new drivers waiting for employment."

"Volvo wants to sell expensive trucks to a market and a culture that do not value it."

5.6.5 Other needs

Two employees argued for one need each, closely related to aftermarket services:

"They need availability of their vehicles. They need all the time they can get with their truck."

"Parts availability. That is the number one need."

Finally, two of the dealers stressed more practical needs, one related to the cost of operation and one related to the purchase of new trucks:

"The bigger the fleets get, the more they ask for trucks that consume less diesel."

"Today customers are starting to buy new trucks again. But they ask us to take in their old trucks as down payment; otherwise they will not do business."

5.7 The customers' problems from their own point of view

This subsection summarizes the responses to the customer interview questions two and three, "What major problems do you have concerning your activities and business? (Internal? With Volvo? With the Volvo dealer?" and "How can you solve the problems you have mentioned?" Please refer to Appendix 6 for a non-reduced overview of the answers.

The two most commented problems were:

- Low pricing of transports on the market [3]
- The customers are not ready for loading upon arrival [2]

5.7.1 Low pricing of transports on the market

Many of the interviewed customers felt stressed about the hard competition and the resulting low prices of transport services. There are simply too many truck companies, was one of the comments. Large companies also compete disloyally by price-dumping, and some companies with excess loads and working hours. These were the explanations given to the problem.

Several ways of surviving were proposed.

One could choose to work only with good customers, such as those who keep promised loading times and those who are paying well. One could also work closer to the customer with more exact time planning, or concentrate on an efficient cost management.

One customer believed that it would pay off to select high quality trucks and equipment.

One customer wanted a stricter legislation to combat the disloyal competition.

5.7.2 The customers are not ready for loading upon arrival

There were problems with the customers of the freight companies not respecting the loading times agreed upon; they do not realize the importance of punctuality.

One way of solving this problem would be to lower the prices for those who do comply with the times. And once again the possibility to work closer to the customer was pointed out.

One of the interviewees had a special solution to the problem. He would avoid the risk of being standing waiting for a loading to be done by leaving the trailer, and then pick up another extra trailer to be able to do another job in the meantime. Those extra trailers were to be strategically parked along the routes he served.

5.7.3 Other problems

The following problems were mentioned by one customer each:

Difficulties to find service installations

This customer was especially disappointed with Volvo's coverage in the South-east.

Slow delivery of spare parts

If the Volvo dealer could learn to interpret the special needs of spare parts for every customer, i.e. to keep "the right" spare parts in stock, it could be a solution to this problem.

Bad support from Volvo

Volvo should be more active in supporting the customer in general.

Need of training for drivers

Volvo does not actively offer training for the drivers. This customer missed some kind of ready training calendar, where he could see different courses and times appropriate for his needs.

Customer can not fulfill his VAT (Value-Added Tax) account obligations

Since the customer was using the services of Volvo Financial Credit (VFC), and VFC did not send him the VAT receipts indispensable for his account, he could not fulfill his obligations towards the tax authorities. This had been going on a long time, and the customer considered to cease paying the interest to Volvo Financial Credit as a way to increase the pressure and make things happen.

Customer had to pay his truck transport to a Detroit Diesel (DD) dealer to replace a compressor

Since Volvo ceased offering Detroit Diesel engines in its new trucks a couple of years ago, customers with older trucks containing DD engines are not supported any more. This customer had this bad experience when he was refused to bring his truck to a Volvo dealer for changing the compressor. He had to pay for his truck being transported to an authorized DD-dealer that would replace it. The customer was disappointed that Volvo would not support this relatively recent truck, bought 2001.

Market is consolidating, leaving small fleets with limited chances to compete

This customer was rather angry with the fact that the truck manufacturers give discounts when they sell trucks directly to large fleet operations. The manufacturers should make no distinction between big and small customers, and they should stop bypassing the dealers, selling directly. This Volvo customer thought all truck manufacturers are destroying their own market, eliminating many small customers that to a high degree use dealer services since they cannot afford to have their own shop.

Repurchase prices for Volvo do not correspond to the high price of purchase

The market is valuating the competition higher despite of the high purchase price of Volvo. The customer thought Volvo should adapt to the reality and lower the purchase prices by USD 4000-5000 to compensate. For the next investment round, the customer considered to choose Kenworth, which was claimed to have a very good repurchase price.

5.8 Summary of the customer questionnaire

The following text summarizes relatively straight forward the most important findings from the questionnaire. A complete numerical summary of the answers can be seen in Appendix 8. The questionnaire can be seen in Appendix 2.

5.8.1 Participation

The objective with the survey was a response rate of 60%. It turned out to be an optimistic goal. After having sent a first reminder to non-responders, the author decided to offer to share the results of the questionnaire. This information was included in a second reminder, but had a poor impact on attracting more responses. 29 of 145 questionnaires were finally returned. This means a very low participation, only 20%. Such a low response rate unfortunately also means a statistically weak survey result.

Among the possible reasons for the low participation could be:

- That there still is no culture among Mexicans to participate in questionnaire investigations of this kind
- That low Internet maturity left many respondents with an uncertainty to answer
- That many persons in the target group - persons influencing the acquisition of new trucks - were occupied with the closing of their companies' books for 2003 during the investigation
- That the questions gave the impression of being too many or too complicated

However, since 29 transport companies after all *did* participate, the results will be accounted for, and parts with stronger statistical support will be used as guiding evidence in relevant fields of the thesis. According to Bhote (1996), more than 30 responses for a well segmented target group is usually giving redundancy, making it unnecessary to strive for a larger amount of assessments per question.

5.8.2 Respondent profile

The majority of the respondents have Kenworth and Freightliner in their fleets, and a little less than half have Volvo and International. Only one company has Scania. This explains the poor assessment of Scania in practically every question, and Scania will therefore be excluded from this summary.

The respondents are transport companies of various sizes, but many of them are relatively small. 31% of them have up to 20 trucks and 69% up to 100 trucks in their fleets.

Almost 90% of the respondents have an influencing level of influence or higher when it comes to taking the decision of buying new trucks. The target group of the investigation was with other words well represented.

5.8.3 Most and least important areas

The request for the respondents to assess the importance of different areas had a good response. All of the areas asked for had 26 or more respondents. However, the respondents have distinguished very little between different areas. The vast majority of the attributes were considered as Important (4) or Very important (5). 20 out of 28 attributes had an average between 4 and 5. Whether this depended on laziness/negligence or is an honest expression of that the majority of the areas really are that important is hard to tell. On the other hand, those few areas assessed as less important appear so much clearer.

Table 3 shows the five areas considered most important.

Table 3. The five most important areas according to the respondents

Question	Evaluation
46. The availability of spare parts	4.89
25. The cost of operation	4.79
17. Ease of maintenance	4.72
16. The truck safety for the driver and other road-users	4.72
5. The reliability of the unit	4.72

The areas considered least important are shown in Table 4.

Table 4. The five least important areas according to the respondents

Question	Evaluation
55. Acquisition of spare parts through telephone, with credit card	2.69
57. Acquisition of spare parts through the Internet, with credit card	2.72
19. The publicity the manufacturers do to call the attention of their brands	3.00
44. Training for administrative personnel offered by the manufacturer	3.44
29. The opinions of the drivers to decide what truck to buy	3.52

5.8.4 Brand assessment

Two brands stick out with a better total assessment than the others; Kenworth and International. These brands are followed by Volvo and Freightliner. Please refer to Table 5 for the final result.

Table 5. Average brand evaluation and Customer Satisfaction Index

	Evaluation, average	Customer Satisfaction Index
Kenworth	4.05	81.5
International	3.93	79.1
Volvo	3.64	72.9
Freightliner	3.60	72.3

There was generally a resistance of choosing the option "Very satisfactory" (5) before "Satisfactory" (4), but especially Kenworth has received this assessment in several areas, which has been decisive for the result. Kenworth arrived at an average better than four in 14 of the 26 categories. The equivalent for International is 12, for Volvo it is 6, and for Freightliner it is 5.

5.8.5 Reliability of the assessments

There was a falling assessment tendency throughout the questionnaire. The closer the end of the questionnaire the less were the assessments. This can either be an expression of the last questions being harder to answer, or the respondents losing interest towards the end of the questionnaire, or a combination of both.

There are some results that one should not trust too much, since the respondents to a large degree selected the option N/A (Not Applicable). This means that these respondents did not have enough knowledge about the area for the brand in question and therefore abstained from evaluating it. This specific unreliability has to be especially considered before drawing any statistical conclusions.

If one still wants to use the assessments for guidance, all of the questions, *except of the three last ones*, had for Volvo and International generally close to 15 evaluators and for Freightliner and Kenworth around 20, and the author therefore chose to trust these 23 areas and to use them in the rest of the thesis with certain precaution. Note that these 23 areas are the ones included in Table 5.

Returning to the CSI levels previously stated by Bhote (1996) in the method section, the assessment of Kenworth would then be a sign of "robust customer health" with its CSI of 80% or higher.

5.8.6 Strengths of the brands

Kenworth had the best average in half of the categories. But there were areas where other brands had the best evaluation, as seen in Table 6.

Table 6. Areas where Kenworth did not win

Question	Brand	Evaluation
8. The use of advanced technology	Volvo	4.47
12. The comfort for the driver	Volvo	4.20
14. The environmental care	Volvo	4.44
16. The truck safety for the driver and other road-users	Volvo	4.40
20. The publicity the manufacturers do to call the attention of their brands	Volvo	3.78
26. The cost of operation (For maintenance, fuel, repair work etc.)	International	4.23
33. Financial support from the manufacturer	International	3.64
37. The dealer net	International	4.36
39. The presence of personnel attending at the dealer	International	3.92
41. Training for drivers offered by the manufacturer	International	3.75
45. Training for administrative personnel offered by the manufacturer	Volvo	3.10
50. The rescue service / assistance on the highway	Volvo	3.55
52. Technical support through telephone	International	3.70

If we return to remember the most important areas, we can see that Kenworth is the best brand in three of these; "The availability of spare parts", "Ease of maintenance" and "The reliability of the unit". This means that Kenworth is well positioned in three of the five most important areas. International is the best brand in "The cost of operation" and Volvo is the best brand in "The truck safety for the driver and other road-users", the other two areas of the top five concerning importance.

To point out some other fields where brands showed noticeable results, Kenworth additionally shows good figures in terms of its *reputation* (Question 10; 4.67), the *satisfaction of the truck drivers* (22; 4.43) and *repurchase prices* (28; 4.33). Both Volvo and Kenworth had a good assessment of *the use of advanced technology* (8; 4.47 and 4.39).

5.8.7 Weaknesses of the brands

On the contrary, pointing out areas where the brands were less successful, Volvo and Freightliner underscored the others on the important issue of *ease of maintenance* (18; 3.43 and 3.86). These two brands are also a little less successful in the assessment of the *price of purchase related to the perceived value of the truck* (24; 3.69 and 3.75).

If we turn to aftermarket areas we can see that Volvo actually had the worst overall rating among all included categories for its *dealer net* (37; 2.83). No other brand had such a bad assessment for any of the 23 categories considered fairly reliable.

Volvo also by far had the worst evaluation in one of the top five categories of importance, namely the *cost of operation* (26; 3.00), and Freightliner and Volvo for their *presence of personnel attending at the dealer* (39; 3.21 and 3.31). Freightliner had a very bad result for its *training offered for drivers* (41; 2.87) and *technicians* (43; 2.93), accompanied in this latter category by Volvo (3.10). Volvo was the worst brand in the sixth most important category, the *warranty* (35; 3.54).

Finally, neither Volvo nor Freightliner is successful in the most important category of them all; *the availability of spare parts* (47; 3.00 and 3.50).

5.8.8 CSI for aftermarket areas

If we only look at 10 aftermarket areas in the questionnaire (the three last questions still excluded), we can actually see clearer that Volvo and Freightliner did very bad, and that also Kenworth and International had a poorer CSI compared to when all the 23 categories were included. See Table 7.

Table 7. Customer Satisfaction Index for aftermarket areas

	Evaluation, average	Customer Satisfaction Index
International	3.82	76.9
Kenworth	3.78	76.2
Freightliner	3.27	65.6
Volvo	3.26	65.1

Once again returning to the CSI levels previously stated by Bhote (1996) in the method section, we can now see that none of the brands are performing well enough to have a "robust customer health". In fact, Volvo and Freightliner would be as close to "a looming crisis" (less than 50 %) as to "robust customer health" when it comes to aftermarket activities.

The categories included in this specific calculation for aftermarket services were:

- The cost of operation
- The warranty
- The dealer net
- The presence of personnel attending at the dealers
- Training for drivers offered by the manufacturer
- Training for technicians offered by the manufacturer
- Training for administrative personnel offered by the manufacturer
- Spare parts availability
- The rescue service / assistance at the highway
- Technical support through telephone

5.8.9 Comments

There were relatively few comments in the returned questionnaires. The two questions opened for additional comments were the questions about the dealer net (37) and the last question (59), open for any additional comment.

The comments directly related to Volvo for question 37 were the following:

"Few dealers" (Respondent from Naucalpan)

"We have had a very poor service from this company" (Respondent from Guadalajara)

"Good sales personnel. Only very bad repair shop service in the new dealer because of lack of training of the personnel. Bad aftermarket attention" (Respondent from Torreón)

"They do not have the staff necessary to offer service to the units" (Respondent from Morelia)

"They have to improve the support of spare parts" (Respondent from Monterrey)

One of the comments for Kenworth included Volvo in the discussion:

"Very professional. We are evaluating the possibility to buy Kenworth instead of Volvo and they helped us a lot and offered good financial support" (Same respondent from Torreón as above).

The respondent from Torreón also specified what he meant by lack of training:

"It is important that the dealers have complete training. In Torreón the dealer is new and there is a lack of knowledge for Volvo engines"

6. Analysis of the Empirical Results

The section will present patterns in the empirical research that point at especially important aftermarket issues to deal with. With the perceived customers problems and needs as starting point, the section will go on presenting major dealer issues. Thereafter, we will see where the Toluca aftermarket organization and VTMX as a whole stand in terms of readiness to deal with the present and future situation.

The reader may remember that an emphasis on studying above all the dealers' ability as good *part time marketeers* (Grönroos, 2002) was expressed already in the method section. The following analysis will many times use the major concerns expressed by the interviewed *employees* as rather trustworthy testimonies of the dealers' problems, since they all could give an overall, countrywide view of them. The other empirical sources of evidence will of course serve as support.

6.1 Customer problems and needs

If we once again go back and look at the purpose of this thesis, we remember that we wanted to identify the current service level offered by the aftermarket organization to be able to compare this with the aftermarket problems and needs of the Mexican truck customers.

From the interviews, we could see that the most cited customer problems from the employees' and dealers' point of view were that *customers are not attended sufficiently or in a good manner by the dealer*, and that *transporting companies give their customers too long credits, causing themselves liquidity problems*.

The most cited needs were that *customers want a total quality solution*, and *cheap trucks*.

The interviewed customers' most cited problems were the *low pricing of transports on the market*, and that their *clients are not ready for loading upon arrival*.

Finally, the questionnaire showed us that customers put great importance in *spare part availability*, *the cost of operation*, the *ease of truck maintenance*, *truck safety in the traffic*, and *the reliability of the truck*.

How can these findings contribute to the aim of the thesis? Looking at them independently will certainly not make us wiser.

But compiling the most frequent comments and important areas in a more condensed form, we can see evidence that the Mexican customers are fighting to survive in fierce competition, during a recession. The prices are low on the market, and the customers are actually having financial problems. They therefore strive for operational excellence and timely planning. They look for cheap trucks, but at the same time for a total solution of quality services. According to the questionnaire, this is expressed by the importance the customers put on spare parts availability and low cost of operation, with safe trucks that are reliable and easy to maintain.

If we think about what all business is about, i.e. to be profitable, generating money for its stakeholders, of course the transport industry is no exception. Then, what are the key success factors for them? Since their trucks are their main income

source, they will have to run. They will have to run all the time, just like the machines of paper mills or any other industry with high investments in machines that are necessary for the business. Then the interpretation we made above starts to make sense.

Within the truck industry, one says that the trucks' *up-time* has to be maximized. This means that a truck ideally should run 24 hours a day, seven days a week, to yield the best return on investment. The importance of up-time was explicitly expressed by the VTMX managing director in the 2003 promotion paper for the annual truck show in Guadalajara. A similar research to this performed by Sällvin (1999), about the New Zealand truck aftermarket, came to the conclusion that up-time had become of outmost importance for profitability in the freight industry.

How does Volvo support the operations of the truck companies to make them succeed? Some of the interviewed dealers and employees admitted that customers are not attended well by the dealers. The next subsection will analyze indications of weak points among them.

6.2 Functionality of the dealers

Returning to the result section, we find that Volvo was the winner of seven categories of the customer questionnaire according to Table 6. What we do see though, is that these areas often are of moderate or minor importance, and that only two of them are related to aftermarket activities (training for administrative personnel and the highway rescue service).

We can see relatively clear evidence from the questionnaire survey that something is wrong with the Volvo *dealer net*. Among the four brands that had enough assessors to be considered somewhat reliable, Volvo was given 2.83, which was the worst average of all areas covered. International had 4.36 and Kenworth 4.28. Freightliner had 3.37. The importance of the category was given the tenth highest rating, 4.59, among the 28 importance categories evaluated.

Even if the brand assessments do not have the statistical reliability desired, the big difference between Volvo and the two best brands makes us wonder. After all, twelve persons evaluated Volvo, fourteen persons evaluated International and eighteen persons evaluated Kenworth, and they were all geographically dispersed over the country.

The category "dealer net" is certainly very broad. When customers assess such a category, many different aspects can have an impact. Spare parts availability, geographical coverage, quality of services offered and the attitude of the personnel may be influencing.

So, could any more specific signs of dealer problems be found?

The category *presence of personnel attending at the dealers* gave Volvo the second worst average of 3.31, while International had 3.92, and Kenworth 3.86. The importance for this area was not one of the highest though, 4.11.

But Volvo also had the second worst evaluation of *training offered for technicians,* 3.10, the area with the seventh highest rating of importance, 4.62.

Concerning the *warranty*, with the sixth highest rating of importance, 4.63, Volvo was the worst brand of all with 3.54. Kenworth had 4.05 and International 4.00.

And, finally, in the two most important categories of them all, Volvo was the worst brand. Both of these were aftermarket areas. The *cost of operation* (importance 4.79) was evaluated with 3.00, and *the availability of spare parts* (importance 4.89) also with 3.00.

If customers put great importance on training of their own technicians, and this importance is ignored by the dealers, it will most probably worsen the image of Volvo. And if warranty issues are not taken care of in a proper way, customers are likely to become annoyed.

The fact that the customers thought the cost of operation to be high for Volvo is a little surprising, knowing that the prices of Volvo spare parts have decreased lately[26]. In this area are of course also included the significant cost of service and maintenance, of which the author does not know about in comparison with the competitors, and the cost of diesel.

However, together with the bad attendance that was indicated, all these poor ratings are relatively reliable in terms of confirming a malfunctioning dealer net, and are probably contributing to the bad overall rating of it. They are areas Volvo should worry about and keep on monitoring.

But as the reader recall, the area "Parts" of the customer satisfaction survey in Santa Fé had the *worst assessment*. And the interviews with the employees pointed at *one major flaw*, which therefore is most probable to cause customer dissatisfaction and threat customer loyalty; *the poor spare parts availability*.

Since we also have seen evidence from the customer questionnaire of deficient parts availability, this seems to be the problem to focus on, and the following subsection will go deeper and analyze the evidence for this area more thoroughly.

6.2.1 Spare parts availability

The results of the empirical study revealed a main problem that is of vital importance to deal with on behalf of the aftermarket; Poor spare parts availability.

Without parts to secure the continuous operation of the truck, customer satisfaction is probably prone to decrease. As one employee interviewee put it:

"Right now, the lack of spare parts is really a fundamental problem. This leads to the service jobs not be finished in time, which in turn leads to discontented customers that will hesitate in returning. Then the sales go down, resulting in savings in training, new tools and so on. It's a vicious circle. It does not help that our technicians theoretically can serve any brand of truck when they still do not have the parts available.[27]

All of the employees interviewed unanimously pointed out this problem, and they were all certain that the reason to the stock deficits was the dealers' *liquidity problems*. Without money, the dealers can not cope with the continuous replenishment required, according to the employees. (A further analysis of the

[26] Employee 1
[27] Employee 2

underlying reasons to the liquidity problems will be done in the subsection "Business focus of the dealers").

It is interesting the fact that only two of the four interviewed dealers mentioned the lack of spare parts as a problem. This can be explained by that one of the dealers actually claimed to have no problems whatsoever, and that *none* of the four dealers claimed to have financial problems.

The seemingly non-existing liquidity problems of these dealers can either be explained by the fact that insolvency can be a rather embarrassing burden for any person responsible to talk about, or by the fact that the four dealers actually had a healthy financial situation. As the reader may remember, the selection of the dealers was made by the author on a practical basis; they were selected without knowing anything about their situation in advance.

However, the two dealers that *did* say that a lack of spare parts is a problem mainly blamed their own bad internal administration to be the causing factor. They partly also blamed Volvo in Toluca for not having the parts when ordered, although they had an understanding for Volvo not being able to keep every single piece in stock.

Only one customer expressed dissatisfaction with the delivery of spare parts. The selection of the customers was also made on a practical basis, and the discontented customer was doing business with another dealer than the ones included in this research, which can explain this only case. Nevertheless, among all interviewees four employees, two dealers and one customer considered the lack of spare parts as a major problem.

For Volvo, the problem's importance and urgency is confirmed by the customers that responded to the questionnaire. Of all areas, spare parts availability was selected the *most important*. Besides, Volvo was evaluated to have the *worst spare parts availability* compared to the three main competitors.

6.2.1.1 Short term solutions

The dealers' lack of liquidity obviously was a well-known problem within the VTMX organization. That is probably also the reason why relatively many proposals to solutions were expressed during the interviews. These included for example to use a consignment system, to organize re-financing programs between dealers and banks, and to introduce a 1-800 telephone line directly to Toluca where customers would bypass a dealer, buying spare parts directly.

Some of these actions had already been tested. We also remember that after June 2003, Volvo started to put an end to the absence of payments by blocking the sales of spare parts to the worst dealers until they started to pay again, with severe effects on the spare parts sales and consequently on the availability.

The average percentage of dealers that was blocked out this way was 59% during 2003, according to the aftermarket director. The question is if this has not stained the Volvo image severely. Nevertheless, all of these emergency actions are a must to secure a good future distribution, even if they will cost the loss of some dealers and, worst of all, some customers.

6.2.1.2 Long term solutions

What can then be done to improve in this field in the long run? This is of course what Volvo Trucks in Mexico has to focus on in the middle of the hard reconstruction of the present dealers' finances.

According to one of the interviewed employees, VTMX at the time for the interview had no rules for how big the debt of a dealer can be. His suggestion of introducing a debt limit to the dealers is definitely a good idea, preventing similar situations to appear in the future.

As seen in the questionnaire result, Kenworth was the best brand when it comes to spare parts availability. A main reason to this is probably that Kenworth has around 100 points of sale for parts, more than any other brand. Thus, if one store does not have a part, it is never far to go to another. Kenworth has this advantage, and to a large extent also International with its almost 70 points of sale. However, to build up such a big net of sales points takes time.

What alternatives are at hand to be able to distribute parts more efficiently, assuming that the dealers have stable finances?

As the reader may recall from the frame of reference section, Zineldin (2000) confronted the use of IT to enhance the customer relations. He talked about EDI (Electronic Data Interchange) systems for facilitating information exchange between channel members. Quick-response logistics and inventory systems use EDI applications to automatically replenish stock as it is sold, and would therefore build customer satisfaction by reducing stockouts.

The fact that the VTMX dealers still in many cases perform stock administration and replenishment manually, and order new parts by email made the author investigate what modern stock management systems could be useful.

The first step Volvo in Mexico could take would be to introduce Internet based ordering at the dealers. This system is called Parts Online and is currently running on 30 different markets worldwide. Through a web portal, the dealers would be able to see 100% of all parts available in a web catalogue. This catalogue offers very complete article information, and products are superseded by Volvo centrally in order to always display the latest version of each single part. Moreover, the system works just like Amazon.com. One orders online, pays via electronic invoicing and can see the status of the delivery online.[28]

There are examples of a 25% rise in sales value within the first quarter of operation for dealers that started to use Parts Online. This rise is explained by the fact that the purchase procedure is done so much easier than if looking around for parts at many different sites. The time saved by ordering online makes the buyer change his purchase pattern, selecting more parts and even more expensive ones. The time saved is converted into larger total purchases.[29]

[28] Telephone interview March 15, 2004. Magnus Holmqvist, Sr Project Manager, Volvo Business Innovation Areas, Sweden.
[29] Ibid

The big advantage with Parts Online is that it only takes three weeks to get going. However, the expected higher sales for Volvo and the time saved by the dealer do not mean that the dealer orders the parts he ought to order. The risk is that parts are ordered without a real demand. If the dealer already had problems before with his stock being obsolete, Parts Online will not solve this problem automatically, rather risking the opposite. Since indications of bad stock administration have been discovered in this thesis, what other systems does Volvo offer that also straighten up the control at the dealer location?

Volvo does have a global stock management program called LPA (Logistic Partner Agreement). This is a concept Volvo offers to help dealers of sales organizations worldwide to introduce automatic replenishment of the stock by means of special software. A Swedish LPA was signed 1995, and 1999 all Swedish Volvo truck dealers had automatic replenishment functioning. The Swedish dealers are very happy with the system.[30]

However, the LPA program does not work if the dealers do not know their part demand. To be able to initiate such a program, the dealers have to have a detailed sales history; otherwise no LPA contracts can be signed. This put certain requirements on the dealers that want to implement the software. No bad administration is tolerated, and the dealers have to live up to a LDS (Local Dealer System) standard.[31]

A LDS is nothing else than a tailor made business system developed by Volvo, handling order information, stock information and invoicing, just like SAP or any other business system. The fact that none of the dealers in Mexico have a LDS installed may explain a little of the poor stock administration that seem to exist. A complete implementation of a LDS takes only around three months, and would open up for the signing of a Logistic Partner Agreement.[32]

Volvo in Mexico has actually taken the decision to implement LDS during 2004.[33] The author thinks this is the right way to go. With LDS functioning, it will thereafter take ½ - 1 year to go through the processes of an LPA, which finally will lead to automatic replenishment of around 70% of the parts frequently ordered. The advantages of automatic replenishment of such a big share of parts are obvious. For Volvo it means a predictable flow of deliveries, and for the dealers it will mean that they do not have to bother about the bulk part of stock administration. A great deal of the costly and complicated manual stock administration would disappear. Additionally, the release of these resources would allow more time for customer relations.

The signing of an LPA program means that the Volvo customer still will have to turn to his nearest dealer to order his parts. What if the customer could free himself from this dependence, ordering the parts directly over the Internet? Would not that

[30] Telephone interview February 27, 2004. Michael Nilsson, Regional Inventory Manager, Volvo Trucks Sweden.
[31] Telephone interview March 15, 2004. Magnus Holmqvist, Sr Project Manager, Volvo Business Innovation Areas, Sweden.
[32] Ibid
[33] According to the VTMX business plan 2004.

save time, and additionally offer a new modern customer touchpoint, enhancing the total customer experience?

The issue was discussed in the last part of the frame of reference section. Has not Volvo got something similar to Seybold's (2001) example of Vauxhall cars being sold directly over the internet, thereby by-passing the practical sales procedures of the local dealer? Or something similar to International's online customer purchasing option?

In fact, there is a higher level than LDS, and that is GDS (Global Dealer System). With a GDS system, not only dealers are allowed to use Parts Online, but also major customers with large purchase volumes. Core customers are often given the option to use Parts Online provided they have GDS. The business transaction is then made between the customer and the dealer, with the dealer bearing the credit risk, just like Volvo is bearing the credit risk when a dealer is ordering with Parts Online to Volvo.[34]

A problem with GDS is that it takes an AS400 or similar, which is a rather expensive platform. It is not enough with a standalone PC system as for LDS. This fact may restrict the chance to implement GDS in Mexico since the financial resources required probably are too big, both for the present Volvo dealers but also for many large customers. For that reason it is likely that Mexican customers of Volvo trucks have to wait until they can order online.

6.2.2 Business focus of the dealers

We have in the last subsection seen that the lack of liquidity very negatively have affected the dealers' ability to keep an acceptable level of spare parts available.

But how did all these dealers end up with such scarce financial resources? It is hard to see any more obvious causes than the glooming Mexican economy. But if we accepted this explanation as the only one, the analysis section would have to stop right here. It is time to take a closer look at the causes.

"Decreasing sales of new trucks is impacting on the overall profitability of the dealer" was considered to be the second biggest dealer problem among the interviewed employees. The negative trend in new truck sales had been going on during the last two and a half years.[35]

Obviously, this is one major explanation to the poor finances of the dealers. But why does a sales drop of new trucks have to be such a big problem? Should not the continuous demand for after sales support be enough to keep the businesses going?

Two of the interviewed employees confirmed that many dealers have a wrong business focus. Many dealers had made themselves too dependent on sales of new trucks. They had made it their preferred income source.

[34] Telephone interview March 15, 2004. Magnus Holmqvist, Sr Project Manager, Volvo Business Innovation Areas, Sweden.
[35] Employee 4

One of these employees said that this preference works well during good times when freight companies are ready to spend money, but strikes back severely during bad times:

"Now, what happens with the dealers that, like in the past years of growth, focus on sales of new units? They are now, during the recession, facing big problems. The reason is they have left aside the important development of after sales products and services, the source of continuous income."[36]

The other employee even thought many large dealers considered aftermarket sales as a "bad must":

"I've heard that the large dealers think they can make money from the sales of new trucks, and that the sales of service and parts are a "bad must". This could not be more wrong, because it is through parts availability and good service you build up the confidence of the customer. Later they will come back and buy new trucks."[37]

That same employee also had seen evidence that one dealer focusing on aftermarket sales had been rewarded with deeper customer relations:

"There are some good examples though. One of the dealers, in Tuxla, had had such a long period of bad sales of new trucks. To survive, they had to concentrate on the aftermarket. That way they have developed good relations with the customers."[38]

What we can suspect then, is that many dealers still seem to build their businesses on *transactional marketing*, rather than on *relationship marketing* (Grönroos, 2002). This would mean that their marketing activities focus on executing as much sales as possible, rather than building strong customer relationships for the future.

Were there any of the dealer interviewees confirming a transactional thinking? The answer is yes. The last interviewed dealer seemed to have had trouble related to this. This is one of his answers to question number two, "What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)":

"Since 2001, we have decreased our personnel from 70 to 30 because we have no sales of new trucks. 2000 we sold 178, 2001 163, 2002 44 and until August 2003 we had only sold 17. The dramatic drop is due the bad Mexican economy. Other dealers have had to get rid of even more people. If this trend goes on, you can not keep this kind of business going."[39]

It is rather obvious that this dealer, at least in the past, had put a great deal of trust in his sales of new trucks. The need to cut his organization in more than half was fully blamed on the recession. No other reasons to the surge of his harsh financial situation were mentioned.

However, it seemed like the aspirations of the Toluca aftermarket staff of emphasizing the importance of after sales activities just had reached this dealer, because on question number four, "What do you think are the real problems and needs of the Mexican customers of trucks?" he answered:

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[36] Employee 1
[37] Employee 2
[38] Ibid
[39] Dealer 4

"Customers need a good overall service. It is especially important to give aftermarket attention. Then the customers will come back. After sales services should simply be magnificent."[40]

6.2.3 Other dealer problems

How well prepared would VTMX be for example to sign a LPA contract in the near future? The administrational status of every single dealer is best known by VTMX itself. In fact, this research only found one dealer out of four with obvious administrative problems. The testimony of the dealer interviewee, however, pointed at very special underlying problems.

The owner of this dealer was in fact also the owner of a very big sister transport company, and a whole group of other companies. The owner did not care much about the dealer business. The installations did not follow the requirements of Volvo and were very poorly designed. The stock personnel worked in a dark and small warehouse, packed to the ceiling with parts, since the stock actually served as the stock for the sister company as well. This means that not only Volvo parts had to be kept, but also parts for all the brands of trucks in the sister company's fleet. The place was flooded with parts.

The interviewee also admitted that service priority was given to the sister company, leaving external Volvo customers with very poor attendance. Additionally, the owner paid very low wages, resulting in a high personnel turnover and loss of know-how.

This is a frightening example. The reason to keep the dealer within the VTMX organization was said to be the sister company being a very important customer. But one has to consider at what cost this goes on. How many other customers are suffering? How many have *defected, or never even become* a Volvo customer in this dealer region because of the bad attendance? These are questions that certainly should be addressed.

There were a few other comments during the interviews with the employees that indicated other specific and obvious strategic flaws at the dealers. Two of them were clearly related to a *lack of knowledge among the personnel*. The first stressed the turnover of personnel as a big causing problem to this:

"The employees do not always have enough knowledge. First of all, the owner has to be aware of that his personnel are his business and therefore should have an adequate training. Then the personnel of all areas should know their "thing". Sales staff should know their product. Administrative personnel should know how to maintain the stock and what brands of parts we have. And so on. We do have a program for annual training, but the sad thing is that many service technicians and other employees leave our dealers after a very short time. So continuous training is a must."[41]

The other stressed that the owners of the dealerships do not understand the importance of proper training for their shop technicians, spare part staff, and other administrative personnel:

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[40] Ibid
[41] Employee 1

"They actually abuse the support of Volvo. Volvo gives a lot of concessions to the dealers. One breaks the hierarchy this way. For example, we are giving a lot of free training to the dealers. They sign up for a course, but then they do not show up. We then have a system of penalty, the ones that do not show up have to pay a fine. But they do not pay. They have bad excuses; often they refer to the already large debts to Volvo that they can not pay. If they do not pay 1000 pesos, they will not pay 10 either. They thus abuse us, yes, but they also are losing the opportunity to learn more about the most lucrative area of sales, the aftermarket sales.[42]

First we should discuss the high turnover. Since the training to the dealers mostly is for free, it seems unnecessary to spend hundreds of thousands of pesos on training for dealer personnel that just work a short period before they leave. The aftermarket director confirmed that it is mostly technicians, but also stock personnel and sales personnel that leave, and that the reason is low wages. It did not have to be any big differences for the employee to take the decision to leave.

Volvo could consider various approaches to solve the problem. If it is true that people leave the jobs for minor paycheck differences, why not be an employer that pay a little more to ground an image of valuing the staff? And why not try to do the little "extra" thing to keep them, not only empowering them but also by showing appreciation in other ways? A reasonable objective would be that VTMX at the end of the road sincerely can stand up and say that the quality of all of its personnel matches the quality of the product, which Volvo claim to be the best.

If we turn to the ignorant attitude of the dealers that abuse the free training offered by Volvo, the author thinks that this problem is closely related to the following; *The lack of vision / business knowledge of the dealer owner*:

"A fundamental problem is the lack of vision / knowledge about business among the dealer owners"… …"We have tried to make the owners write, like any business should, a business plan. But we have had very bad response, they do not even try. Especially the first generation of dealers we contracted here, they have had a loose attitude. Those that we contracted after the introduction of DOS have been considerably better in keeping their business in order."[43]

This last comment to be analyzed is a single one, but it nevertheless tells us that the problems of the dealers mostly are experienced among the ones that were established before the introduction of the Dealer Operating Standard. These dealers were selected in the initial phase of the dealer net establishment. Looser rules and requirements were put on them, and now Volvo is painfully experiencing the drawback of it. The lack of vision and business knowledge may be the root to the bad assessments of the customer questionnaire. To address the problem, the employee had the idea of offering the dealer owners special business courses to get them on the right track.

Another employee interviewee had a more harsh solution to the problem:

"The problems with bad administration I believe are an internal problem of Volvo, not a problem of the dealer. A firmer management of the rules we set up for the dealers will be the

[42] Employee 3
[43] Employee 2

solution. Look at the first McDonalds in Mexico, in Leon, they simply shut down when they could not attract the market."[44]

This last comment is putting its finger on a really sensitive point; the hard decision whether to invest more money in the worst dealers, or to phase them out, replacing them with new and stable businesses.

To round off this dealer section, we will let a comment of Dealer 3, the dealer with no problems whatsoever and with the highest overall DOS rating (94%), indicate some successful approaches of building a stable dealer operation:

"Internally, we do not have any problems either. To give you an idea, our staff turnover is zero. We are the same people now as three years ago. We try to let everyone participate as much as possible and we see openness, responsibility and good communication as something natural. We do not see our high amount of training hours as a waste of time or money, but as an investment. The staff grows and will generate money for us this way. If you look at training as expenses, then you already have problems."

6.3 The readiness of VTMX to deal with the future

How is then Volvo Trucks in Mexico doing in dealing with the dealer problems, from our theoretical point of view? How well prepared is VTMX for the future? We can start by looking at the values and aspirations of the higher management.

6.3.1 The higher management

We have seen that the higher management is meeting frequently, every Monday morning, and that these meetings also include the next level of managers after the aftermarket director, representing the organization in Toluca. These frequent meetings are a sign of healthy mouth – to – mouth communication, vouching for a common view of management that can be adopted all through the organization.

However, there is nevertheless one detail that could impact negatively, both internally and externally, on Volvo Truck's image to take customer relationship management seriously.

This detail may actually be the *VTMX key performance indicators*, as shown in Table 2 in the result section "VTMX higher management commitment".

It turns out that just the two last key performance indicators, "Stock turnover in spare parts", and "Spare parts fill rate", could be somewhat related to customer satisfaction. Many of the others are different classical measurements of sales, market shares and operating costs.

Merchant (1998) states that one potentially severe behavioral displacement problem of such measurements, referred to as financial result controls, is that they may make managers excessively short-term oriented, or myopic. This is especially probable to happen if managers' compensation is based on them.

If one wants to guide an organization towards relationship thinking, there should be some key performance indicators based on how satisfied customers are, or even

[44] Employee 3

better, how loyal they are. Therefore VTMX should consider adding to the current indicators measurements of customer satisfaction or customer defection. If then managers' and sales personnel compensations are based on these metrics, much land has been conquered.

This way the message to all members in the organization would be more balanced, reducing the risk of myopia internally. Having the commitment for customer loyalty clearly expressed from the higher management is a cornerstone for *guiding the internal marketing in the right direction*. This would be especially valuable for the dealers, taking into consideration their, according to this research, overemphasized transactional marketing focus. Especially the dealers need to know that *adding value* for the customers comes first. Increased sales from new trucks then comes automatically.

A customer loyalty focus also signals externally, towards the public, that *Volvo Trucks in Mexico is a company that, from top management level, cares about its customer relations.*

6.3.2 The aftermarket employees

No major complaints were made directly against the Toluca personnel during the research, except one of the interviewed dealers that thought he was met with a bad attitude when he called to request technical information, and one customer that was missing a ready training program for drivers and technicians.

In fact, the aftermarket employees seem to live up relatively well to their mission statement, as accounted for in the result section. The interviewed employees were well aware of the importance of good aftermarket services, both to provide secure long-term financing of the dealers' business and to strengthen the relations to the customers. Since all these employees have key aftermarket roles, there seems to be a healthy accord of commitment in the organization. This common commitment has to be considered a good basis for succeeding in the *internal marketing* towards the dealers, that is, for example, to succeed in marketing products and services and to transmit a good *service culture*.

Another proof of compliance with commitments recommended by advocates of the relationship approach was the fact that the employees seem to be well *empowered* in their roles. The aftermarket organization works independently in Toluca. It is small, which makes daily oral communication easy, and the author saw no signs of unnecessary hierarchy.

The members of the young organization were enthusiastic and seemed to be open for changes. They were all involved in setting their own goals for fulfilling the aftermarket mission of the company. As shown in the result section, an explicit strategy of empowerment is also used towards the dealers. The customer interactions have to be done by the dealers themselves, creating good customer relations at the local level. The customer should trust the dealer.

6.3.3 Customer satisfaction and customer loyalty research

As for December 2003, there was one organized customer satisfaction survey ongoing. This survey was evaluating five different areas, directly after the customers' acquisition of new trucks. The evaluation was done through telephone.

The manner of contacting the customer directly after the sale is an excellent way of building customer confidence. Bhote (1996) exemplifies with a top car sales man that sold twice as many cars as the second best. He called the customer soon after the sale and periodically thereafter to solicit their reactions and help them. He called them on their birthdays, alerted them for the next service check-up, helped them with servicing problems and even assisted in the resale of the car.

The ongoing Volvo customer satisfaction survey is conducted by the department of new truck sales in Santa Fé. Two questions related to the aftermarket were asked, one for service and one for parts, which is good. It is a sign of healthy awareness of the importance of these aftermarket parameters among the sales personnel.

However, Volvo had chosen to use the color green for the ratings "Good" (4) and "Very good" (5), which corresponded to a customer satisfaction index between 61 and 100. The author thinks Volvo should consider not coloring a rating of 4 green. As stated by Bhote (1996), customer satisfaction is not enough. You should *delight* your customers to be able to keep them. As the reader recall from the frame of reference, if a customer is rating a company on a scale 1-5, where 4 is "Satisfied" and 5 is "Very satisfied", even a significant percentage of satisfied customers (who give a 4) become defectors the moment the competition offers a lower price or other perceived benefits. These customers normally account for 10% to 50% of the company's customer base (Bhote, 1996).

In addition, the author thinks that, to increase the awareness of the customers' perceptions of the aftermarket services, *additional research should be carried out in this area in the future*. The author can for example confirm that the personal interviews conducted during the research of this thesis were very appreciated on behalf of the customers. One-to-one interviews are highly efficient but costly if they are to be carried out by managers or external consultants, as we could read in the frame of reference. One cheap but mutually beneficial solution would be to let student graduates continue to perform customer surveys in VTMX in the future.

The research discovered another kind of a close follow- up, performed by Dealer 3, the dealer with outstanding performance. Five days after every kind of repair work, the dealer called the customer to see if everything worked and how he felt about the process at the dealer shop. According to the dealer, this kind of follow-up action gave very accurate feedback. Since the feedback was so fresh to everyone, it was easy to relate mistakes to the specific customer. The dealer said they learned fast that way.

This kind of research is very close to what Bhote (1996) describes as a *learning relationship*, with the highest degree of effectiveness on his 1-10 scale. The customer actually coaches the supplier about their preferences and needs.

The dealer did the special follow-up without Volvo explicitly asking them to. Since this is the dealer with the highest overall DOS rating with 94% compliance, the author suspects a high correlation between its successful business and its way of working. VTMX could therefore learn from this dealer and carefully consider adopting its follow-up method throughout the dealer net.

Moreover, the author thinks it would be appropriate that VTMX initiates some kind of customer loyalty metrics. VTMX was not performing anything in this area for the moment.

The aftermarket division could for example continue to perform customer surveys similar to the web-questionnaire used in this thesis, monitoring assessments and thereby striving for improvements leading towards top ratings (5), which would indicate customer loyalty (when customers actually would be delighted). This would maybe be suitable when the use of a common and powerful CRM database will be in full action, to facilitate accurate target group selections.

According to Bhote (1996), two negative aspects of questionnaire surveys are that they are impersonal and have a low degree of effectiveness due low response rates. To yield valuable information from them, one also has to make sure to only ask about issues that really matter to the customer. This will limit the questions to as few as possible, increasing the possibility for better response rates. The questionnaire survey of this research did not fully take into account the reduction of the number of questions to as few as possible. To increase the response rate further, future customer satisfaction surveys of this kind should probably also offer some kind of reward to the respondents.

The easiest way to get valuable information of customer loyalty would be to start to measure *customer defection rates*, as described by Bhote (1996) in the frame of reference. The number of customers who have defected as a percentage of the total number of customers would also be an excellent key performance indicator for VTMX to use as a customer relation barometer.

6.3.4 The use of IT

To keep track of customer relations, one needs robust support systems. VTMX is today having a variety of different customer data bases. The common Siebel CRM database will definitely be a tremendous help for the whole organization, but the author is concerned about the poor discipline of introducing the data. The higher management will have to prioritize this issue if customers are to feel a uniform treatment no matter who is interacting with them. In a longer perspective, it would of course be wonderful if the dealers could make use of the Siebel system. That was not the intention of VTMX at the time being.

As for the present use of IT to support part replenishment, please refer to the "Functionality of the dealers" subsection.

7. Conclusions

This section will briefly summarize the gaps found between the current service level offered by the Volvo Trucks aftermarket organization and the customer needs. Suggestions on how to address the gaps will be presented, as well as suggestions on how to monitor customer satisfaction and customer loyalty in the future.

7.1 Gaps between current service level and customer needs

The lack of spare parts is by far the most urgent problem for Volvo trucks in Mexico for the moment, and probably also the most important, taking into consideration the effect it obviously has on customer satisfaction- and loyalty.

The financial problems of the dealers is the main causing factor to the stockouts. This reason was explicitly pointed out by four employees interviewed during the research, who also confirmed several ongoing efforts to deal with the problems.

The financial renovation of the dealers, intensified during 2003, has most probably worsened the image of Volvo, since the majority of them were stopped from buying new parts. The customer questionnaire, launched at the end of 2003, may have confirmed this. Spare parts availability was evaluated to be the most important area, but Volvo was assessed to be the worst brand in this category, as well as for the dealer net in general. Volvo also had the poorest average for ten key aftermarket areas, the two mentioned areas included.

Evidences of poor management were identified as possible causing factors to the dealers' liquidity problems. The main general flaw in this sense would be a *questionable business focus* among many of the dealers. The sales of new trucks were prioritized as main income source while aftermarket services had to stand back, resulting in poor attendance to the customer. The author has identified this behavior, in accordance with prevalent marketing theory, to a transactional marketing approach, as opposed to a relationship marketing approach, which would be much more appropriate in a truck aftermarket context. *The relationship marketing approach could be better supported by the higher management.*

Most probably related to the questionable business focus is a *lack of vision and business knowledge of the dealer owners*. That is probably also why some dealers ignore the free training offered by the aftermarket organization, and the reason to the high turnover of personnel, resulting in poor knowledge among the dealer employees.

Finally, *modern information technology could be better used* to enhance spare part fill rates at the dealers and to facilitate a uniform knowledge about each customer.

Laying the foundation for a working dealer- and IT infrastructure, addressing a questionable dealer business focus, and improving their business knowledge are thus the main issues for VTMX to deal with for the future. The aspiration of the aftermarket organization to work towards common objectives of lasting customer relationships has been found adequate in this research. What is left is suggesting how this aspiration could be used to address the gaps discovered and how future metrics to analyze customer satisfaction and customer loyalty could be carried out.

7.2 Recommendations

These recommendations are divided into five parts.

The first three addresses the gaps found, by suggesting infrastructural improvements, encouragement of relationship thinking within the organization, and a patronizing of the competence within the organization.

The two last parts are suggestions on future ways to monitor customer satisfaction and customer loyalty.

7.2.1 Improve the infrastructure

7.2.1.1 Renovation of dealers

The financial renovation of the dealers has to go on. It is only through stable finances the dealer will have a chance to develop its services to the customers.

However, Volvo Trucks in Mexico has to carefully choose which dealers to renovate. One should phase out or re-construct the cooperation with dealers that is not fully committed to the role of doing its best in terms of developing good relations with customers. There should be no extenuating circumstances to keep dealers that neglect this principle, causing a bad image of the brand.

Another reason to phase out the ones that are performing too bad and are not showing any progress is that an implementation of new software with automatic spare part replenishment will not be possible with dealers that are not fulfilling basic administrational requirements.

7.2.1.2 Implementation of IT-solutions

Having a new system of automatic replenishment fully running at the dealers will vouch for more stable fill rates in the future. An automated replenishment based on a Logistic Partner Agreement (LPA) should be one of the highest priorities. The progress of the project is nevertheless dependent on the administrational readiness of the dealers, which makes the financial renovation of dealers come first in terms of importance. Then, the implementation of the Local Dealer Systems (LDS) can take place, laying the foundation for a LPA.

Another IT project of equal urgency is the implementation of the common Siebel CRM database. Volvo Trucks de Mexico has to invest in the necessary resources to make the system running. It does not matter who is introducing the data – let be employees, external consultants or students – the common information about the customers will be a significant improvement, supporting aftermarket functions as well as others within the organization.

7.2.2 Secure customer relationship thinking within the organization

7.2.2.1 Higher management signals

Today, the vast majority of corporate key performance indicators are based on transactional measurements rather than on customer relations measurements. The message internally to all members in the organization should be more balanced,

reducing the importance of the number of transactions, and would externally signal that Volvo Trucks in Mexico is a company that, from top management level, cares about its customer relations.

Therefore the author suggests the introduction of key performance indicators based on how satisfied customers are, or even better, how loyal they are. One such indicator, which also is easy to measure, would be the customer defection rate.

7.2.2.2 Dealer business focus

We have seen a healthy commitment to the importance of appropriate aftermarket activities among the aftermarket employees. The challenge ahead is to get the message out to the dealers. One way could be to elaborate customer relationship courses. These should have as a goal to make the dealers leave transactional thinking, re-focusing on relationship thinking.

The courses should include theory of relationship marketing vs transactional marketing, convincing examples of the cost of defecting customers, and best practices examples by showing evidence of profitability of aftermarket sales. Best practices would best be shown by inviting successful dealers to speak (Texcoco).

Clearly expressed strategies and incentives to change the dealers' attitude have to be elaborated.

7.2.3 Secure the competence

7.2.3.1 Dealer business knowledge

The dealer owners have to become good administrators. This could be done by developing the area of training for higher dealer managers. Make them aware of the importance of having skilled co-workers that stay and thereby are likely to grow in their roles as successful part time marketers for Volvo, generating profits through higher quality services. Use best practice examples again if appropriate.

With such a campaign, the author believes the ignorance of sending the dealer employees to the free training courses will decrease, which hopefully will lead to more skilled, empowered and motivated co-workers. Nevertheless, both competitive wages and additional personal concern about the employees should be considered as means to succeed.

7.2.4 Future customer satisfaction research

The author recommend that the Toluca aftermarket organization carries out one-to-one interviews with at least 12 *core* customers, once a year, as a suggestion by appropriately selected students as interviewers. This centrally collected information is strategically very important for VTMX, to be able to satisfy the most profitable customers.

The reason to choose interviews before questionnaire surveys is that personal interviews provide more subtle information than a mail survey or a web survey. Additionally, performing a personal interview is a much appreciated way of showing attention to core customers.

The reason to use independent students is that external interviewers are more likely to receive sincere and straightforward answers. It is therefore probably a mutually beneficial solution. Student graduates will have a chance to include instructive research as a part of their studies at the same time as VTMX can benefit from a cost effective method.

As for close follow-ups, these are also extremely important. Each dealer should therefore consider adopting the kind of research carried out by Texcoco five days after each service job, or developing this concept even more. This kind of close customer satisfaction research is helping to take the pulse of *all* customers, and is most probably a learning relationship each dealer – and Volvo – will benefit from.

7.2.5 Future customer loyalty metrics

The author suggests to measure *customer defection rates*, as the easiest way to start. The number of customers who have defected as a percentage of the total number of customers will also be an excellent relationship oriented key performance indicator for VTMX.

8. Suggestions on Future Research

This thesis has been taking a very broad approach. Not only have a whole organization been investigated, but also have various methods been used to find evidence. The author thinks that less comprehensive research within the truck aftermarket could be carried out with great results in the future.

Such future research could for example try to investigate more closely the dealerships. A deeper investigation of the functionality of this important customer touchpoint would definitely be justified in order to improve the aftermarket services as much as possible. Also, the concepts and methods of controlling the dealers towards common corporate objectives could be paid special attention.

Another interesting area is the use of IT. In Mexico, the increasing overall use of IT will require special competence for each area or level of usage, especially during the important transition time from old technology to new. The author of this thesis did not go deep into this area, and was surprised about the limited usage of common administrational systems at the dealers, something he realized at the end of the project. Only the area of spare parts distribution would require a full blown research to be able to go deeper into the possibilities of today. Further research could also be carried out about modern customer relationship management databases.

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Appendix 1. Original Project Assignment

MARKET RESEARCH

PROJECT

Develop and execute a Market research to identify customer aftermarket needs and gaps between those needs and current service level, in order to:

OBJECTIVES

A) Define a Strategy to reduce those gaps and help to position Volvo Trucks products in the Mexican market as the best in Quality, Safety and Aftermarket service.
B) Define system to continuously monitor Aftermarket performance and end user satisfaction.
C) Define a system to periodically monitor Volvo Trucks Aftermarket and Dealer Net image in the Mexican market.

SCOPE

- Current and potential customers

TIME FRAME

- 3 to 6 months

PROJECT RESPONSIBLE

- Aftermarket Director

BACKGROUND

Volvo Trucks de Mexico (VTMX) offers a quality and safety products in the Mexican Market, considered for may customers as the best product in the market. Despite of this, market share have not reach the level planned for 2003, VTMX, believes this situation has been affected mainly by current Mexican economy, price in their products and due lack of proper Aftermarket support provided through dealer net (19 full line dealers plus 5 parts and service affiliates).

In general Aftermarket support in Mexico, is perceived as an improvement opportunity for all trucks OEM's, it is a common practice for end users to have their own repair shop do not matter how many units they have. Dealer's shop demand is based on warranties, technical issues not solved by customer mechanics, customers in transit and services provided during the warranty period. Under this situation parts availability turns in a very important factor for customer satisfaction.

Appendix 2 The Customer Questionnaire

General data about your business

1. What brands of trucks do you have in your fleet? You can choose more than one brand.

- Freightliner
- Scania
- Kenworth
- International
- Volvo
- Other(s), please specify: _________________________

2. The size of your fleet?

- 1-10 units
- 11-20 units
- 21-50 units
- 51-100 units
- 101-200 units
- 201-500 units
- More than 500 units

3. If you would like to go to an authorized shop with your trucks – In what city(s) or in what area(s) would you like to turn them in? _________________________

4. What level of influence do you have when it comes to taking the decision of buying new trucks?

☐ 1. No influence ☐ 2. Propose ☐ 3. Influencing ☐ 4. Very influencing ☐ 5. Decisive

Evaluation of different brands of trucks

Instructions:

The majority of the questions that follows below are to be considered two times. The first time refers to the importance you give the subject. The scale goes from 1 to 5, where (1) is "Not important", (2) is "Little important", (3) is "Neutral", (4) is "Important" and (5) is "Very important". The second time you see the subject it is referring to your evaluation of every brand. The scale goes from 1 to 5, where (1) is "Very unsatisfactory", (2) is "Unsatisfactory", (3) is "Neutral", (4) is "Satisfactory" and (5) is "Very satisfactory".

Note: If you do not have any experience with a brand, please select the option N/A.

For some questions the evaluation of the brands will not have to be done.

Section A - The unit

5. The reliability of the unit:

	☐ 1. Not important	☐ 2. Little important	☐ 3. Neutral	☐ 4. Important	☐ 5. Very important

6. The reliability of the unit:

Freightliner	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory
Scania	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory
Kenworth	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory
International	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory
Volvo	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory

7. The use of advanced technology:

	☐ 1. Not important	☐ 2. Little important	☐ 3. Neutral	☐ 4. Important	☐ 5. Very important

8. The use of advanced technology:

Freightliner	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory
Scania	☐ 1. Very unsatisfactory	☐ 2. Unsatisfactory	☐ 3. Neutral	☐ 4. Satisfactory	☐ 5. Very satisfactory

...

..

9. The reputation of the brand:

	☐ 1. Not important	☐ 2. Little important	☐ 3. Neutral	☐ 4. Important	☐ 5. Very important

10. The reputation of the brand:

Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

11. The comfort for the driver:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

12. The comfort for the driver:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

13. The environmental care:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

14. The environmental care:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

15. The truck safety for the driver and other road-users:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

16. The truck safety for the driver and other road-users:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

17. Ease of maintenance:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

18. Ease of maintenance:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

19. The publicity the manufacturers do to call the attention of their brands:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

20. The publicity the manufacturers do to call the attention of their brands:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

21. The drivers' satisfaction with the truck:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

22. The drivers' satisfaction with the truck:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

Section B – Economy / Profitability

23. The price of purchase related to the perceived value of the truck:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

24. The price of purchase related to the perceived value of the truck:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

25. The cost of operation (For maintenance, fuel, repair work etc.):
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

26. The cost of operation (For maintenance, fuel, repair work etc.):
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

27. The second-hand value:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

28. The second-hand value:
Freightliner ☐ 1. Very unsatisfactory ☐ 2. Unsatisfactory ☐ 3. Neutral ☐ 4. Satisfactory ☐ 5. Very satisfactory
....

29. The opinions of the drivers to decide what truck to buy:
☐ 1. Not important ☐ 2. Little important ☐ 3. Neutral ☐ 4. Important ☐ 5. Very important

30. The possibility to select different brands of components (For example: Engines, gear boxes, transmissions,

etc.):

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

31. The possibility to select different brands of components (For example: Engines, gear boxes, transmissions, etc.

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

32. Financial support from the manufacturer:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

33. Financial support from the manufacturer:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

34. The warranty:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

35. The warranty:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

Section C – Aftermarket services

36. The dealer net:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

37. The dealer net:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

38. The presence of personnel attending you at the dealer:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

39. The presence of personnel attending you at the dealer:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

40. Training for drivers offered by the manufacturer:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

41. Training for drivers offered by the manufacturer:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

42. Training for mechanics offered by the manufacturer:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

43. Training for mechanics offered by the manufacturer:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

44. Training for administrative personnel offered by the manufacturer:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

45. Training for administrative personnel offered by the manufacturer:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

46. The availability of spare parts:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

47. The availability of spare parts:

Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory

....

48. The possibility to outsource the maintenance and repair work to mechanics from the shop of the authorized dealer:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important

49. The rescue service / assistance on the highway:

□ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important
50. The rescue service / assistance on the highway: Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory ....
51. Technical support through telephone: □ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important
52. Technical support through telephone: Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory ....
53. Technical support through the Internet: □ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important
54. Technical support through the Internet: Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory ....
55. Acquisition of spare parts through telephone, with credit card: □ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important
56. Acquisition of spare parts through telephone, with credit card: Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory ....
57. Acquisition of spare parts through the Internet, with credit card: □ 1. Not important □ 2. Little important □ 3. Neutral □ 4. Important □ 5. Very important
58. Acquisition of spare parts through the Internet, with credit card: Freightliner □ 1. Very unsatisfactory □ 2. Unsatisfactory □ 3. Neutral □ 4. Satisfactory □ 5. Very satisfactory ....
59. If you have any additional comments regarding the questions, or want to add something that has not been covered in the questionnaire, please do it here: ______________________________ ____ ____

Appendix 3. Interview Compilation

Employees

Employee 1 October 8, 2003

What do you do within Volvo Trucks in Mexico?

I'm in charge of the continuous development of the Dealer net. Right now we have 19 full line dealers, offering sales of new trucks as well as spare parts and maintenance in service shops. They also have an exhibition of new trucks and parts.

Then we have seven affiliates, each one of them depending on one of the full line dealers. They can usually only offer sales of spare parts and repair shop services. For example in the state of Chihuahua there is one full line dealer in Juárez who also established an affiliate in Chihuahua. They cover together a large geographical area and complete each other.

My job is to check businesses that want to enter and become full line dealers of Volvo. If I and our finance department see that they comply with the requirements, they can become dealers. Most of all we want them to have experience of spare parts sales, because this is the heart of our business. Many times an independent repair shop with no previous connection to any of the truck OEM:s can be a perfect match.

It is a continuous process to look for new dealers. Some of the established dealers leave us, e.g. when their sales are insufficient or for other reasons. The southern part of the country is very poor, and the class 8 trucks we mainly try to sell are too expensive and cannot stand the bad roads there. This was why one of the dealers shut down in this area. Other dealers simply do not comply with the requirements we put on them. So far we have closed down 3 dealers for this reason.

The year 2000 we introduced what we call DOS (Dealers' Operating Standard). It is part of our ISO 9000 quality system and consists of seven different sections. The sections describe in detail how the dealers' administration, buildings, use of the Volvo brand, sales of new trucks, sales of service, sales of spare parts and environmental care should look like. Every six months we go to the dealers and evaluate their activities. We then give them feedback on what areas of improvement they should focus on. The latest evaluation gave us an average compliance of 60 % for the seven sections, and we actually see a positive trend. Our objective is 90 % compliance. Texcoco have 94 %, which is very good.

Lately we have emphasized the importance of after sales activities. We want the sales of spare parts and repair shop services to cover at least 100 % of the fixed costs, thus ensuring a somewhat stable business. The sales of new trucks should be considered as complementary income.

What major problems do you think the dealers have concerning their activities and business?

Now, what happens with the dealers that, like in the past years of growth, focus on sales of new units? They are now, during the recession, facing big problems. The reason is they have left aside the important development of after sales products and services, the source of continuous income.

Another important problem is the lack of liquidity. The latest years have been good in the sense that the dealers have gotten more customers. But accompanying the bad conjuncture, the customers have prolonged the credit times. When the customers do not pay, dealers can not buy new spare parts to fill their stock, then they can not take care of the service demand, and so, at present, many dealers encounter themselves in a vicious circle.

Furthermore, many times the dealer has a bad administration of the stock. They buy spare parts that the customers have no use for. The parts become obsolete and obstruct the necessary turnover of spare parts. The turnover should be around 5-6 times per year.

Volvo is expensive, and that is also a major problem because a big part of the Mexican customers is just interested in a cheap truck. It does not matter to them advanced technology or fancy seats. The sales of new trucks have decreased lately; this is of course affecting the dealers negatively.

The employees do not always have enough knowledge. First of all, the owner has to be aware of that his personnel are his business and therefore should have an adequate training. Then the personnel of all areas should know their “thing”. Sales staff should know their product. Administrative personnel should know how to maintain the stock and what brands of parts we have. And so on. We do have a program for annual training, but the sad thing is that many service technicians and other employees leave our dealers after a very short time. So continuous training is a must.

How can Volvo Trucks solve the problems you have mentioned?

Regarding the high prices of Volvo; this is mostly valid for the new trucks. On the other hand, the prices of the spare parts have decreased lately, because we have grown in the Mexican market and thus we have today 6500 trucks rolling on the roads. Then we have better negotiation power to our suppliers. This in turn means that the dealers can lower their prices and get more parts sold. This will ease the liquidity problems.

Volvo can also be better in promoting service of trucks of another brand in our own repair shops. This is possible because many components are common across all brands, and then our dealers could easily repair for example a Kenworth. This is an opportunity to grab a larger piece of the huge aftermarket of Mexico, and also to get the dealers going.

What do you think are the real problems and needs of the Mexican customers of trucks?

Parts availability is the number one need.

There is a lack of personnel attending the customers at some dealers. The customers are thus not assisted or given the time necessary.

Employee 2 October 9, 2003

What do you do within Volvo Trucks in Mexico?

I am responsible for the technical support and service support. I am also responsible for the 1-800 telephone assistance to breakdowns on the road, the handling of warranties and partly in charge of the continuous development of the Dealer net.

If customers have questions regarding technical issues, my group is acting as technical support, through the dealer. If customers think that there is a gap between what they expected and what they later experience, they also share their complaints with us. But we always try to canalize the work through the dealers. In short, my group worries about and strives for the dealers' installations being as good as possible when it comes to technical service. The customers should trust the dealer. That is why we never promise anything to the customer, deals shall be established between him and the dealer.

We put a great deal of our trust in the use of the DOS-manual. There we find exactly how we and the dealer should act.

What major problems do you think the dealers have concerning their activities and business?

Right now, the lack of spare parts is really a fundamental problem. This leads to the service jobs not be finished in time, which in turn leads to discontented customers that will hesitate in returning. Then the sales go down, resulting in savings in training, new tools and so on. It's a vicious circle. It does not help that our technicians theoretically can serve any brand of truck when they still do not have the parts available.

Behind the lack of parts lies the fact that the customers does not pay in time. The long credits make the dealers short on money, and then they can not keep the appropriate stock.

The present falling sales of new trucks are something I notice, because the warranty jobs consequently decrease. I think the problems with the sales decrease of new trucks depend on our trucks being too expensive, too luxurious for our market. Our competition sells cheaper versions, and the Mexicans are not really interested in having the fanciest trucks. As long as it runs... And at the same time I think it is also the effect of our customers having seen this lack of parts for a long time already. Then they will not take the risk buying another Volvo truck.

A big general problem is that the majority of our customers have their own repair shop since many years. They only come to us because of the warranty or if they made some special agreement with the dealer.

A fundamental problem is the lack of vision / knowledge about business among the dealer owners.

I've heard that the large dealers think they can make money from the sales of new trucks, and that the sales of service and parts are a "bad must". This could not be more wrong, because it is through parts availability and good service you build up the confidence of the customer. Later they will come back and buy new trucks. There are some good examples though. One of the dealers, in Tuxla, had had such a long period of bad sales of new trucks. To survive, they had to concentrate on the aftermarket. That way they have developed good relations with the customers.

How can Volvo Trucks solve the problems you have mentioned?

We could solve the problem with the lack of liquidity with an introduction of commissions. That is, the dealers would then not buy the spares from us, just sell them for us and get a commission for that.
Then, another thing would be that we tried to get them to focus on the after sales, develop this to get them out of their crises. We can help all dealers to understand that through stable aftermarket sales they will improve their business through better liquidity.

Maybe we are not selling what the customer wants here in Mexico. This year we introduced the third generation of our model VN, and the retail price rose slightly in comparison with our competitors'. I think this was a bad move, because at the same time we are in the middle of this recession, so the customers turned to our cheaper competition. A complementary model to enter the other 90 percent of the market that we cannot reach for the moment because of our present segmentation strategies would be a suggestion. As you might know, we are outstanding leaders in this 10-percent segment of high quality products, where we sell 90 % of the trucks. But we will never be able to enter the other 90 % with the offers we have today.

To solve the problem with the service shops of our customers; we have a current strategy going on for this. We try to create contracts of maintenance where the dealer's mechanics go to the customer and do the work in the customer's shop. We have an example of this in Chihuahua, where they even put up a stock of spare parts. This has really turned out good in some cases. The advantages for the customer are that there are always skilled technicians present, and they save time when they do not have to travel to our shops or call for spare parts.

The lack of vision and business knowledge of the owners could be solved with special courses for them. Up to this date, we have only concentrated on the staff of the dealers. We could learn from benchmarking. Take McDonalds, maybe we should try to adopt a stricter form of franchising, with well defined rules for the owners. We have tried to make the owners write, like any business should, a business plan. But we have had very bad response, they do not even try. Especially the first generation of dealers we contracted here, they have had a loose attitude. Those that we contracted after the introduction of DOS have been considerably better in keeping their business in order.

What do you think are the real problems and needs of the Mexican customers of trucks?

They need availability of their vehicles. They need all the time they can get with their truck.

They need cheap trucks. If the drivers sweat because there is no air condition and quit work because of that does not matter. There will be 15 new drivers waiting for employment.

Employee 3 October 9, 2003

What do you do within Volvo Trucks in Mexico?

I am responsible for the quality system. I am also manager for the training and have some independent projects going on.

The quality system consists of two parts; Volvo Parts de México and Volvo Trucks de México. These two parts are based on the system of North-America. We apply the Volvo Trucks part in Santa Fé for sales, administration and finance, and the Volvo Parts part for the aftermarket.

The training is internal training for us here in Toluca, for Santa Fé and for our dealers. The dealers' training includes the training on parts from our suppliers, like Cummins etc.

One project I do right now is about human resources, where I am in charge of the introduction of "The Volvo Way", Volvos cultural program. We have also something we call ESI, Employee Satisfaction Index. Volvo would like this index to increase with 2 % annually, worldwide.

Another project is the introduction of a common platform of web-pages for Volvo worldwide. I will be responsible for the content here in Mexico.

What major problems do you think the dealers have concerning their activities and business?

They do not know the needs of the customers. Or if they know, they ignore them. I think the reason is that the dealers put too much effort in their sales of new trucks. It seems like they do not put as much effort in the after sales as they should. We do have examples of dealers that did, and they have fair profitability.

They do not have spare parts because they have no money. So when the customers come and there are no parts available, the image of Volvo gets worse and worse.

They have bad administration.

They actually abuse the support of Volvo. Volvo gives a lot of concessions to the dealers. One breaks the hierarchy this way. For example, we are giving a lot of free training to the dealers. They sign up for a course, but then they do not show up. We then have a system of penalty, the ones that do not show up have to pay a fine. But they do not pay. They have bad excuses; often they refer to the already large debts to Volvo that they can not pay. If they do not pay 1000 pesos, they will not pay 10 either. They thus abuse us, yes, but they also are losing the opportunity to learn more about the most lucrative area of sales, the aftermarket sales.

How can Volvo Trucks solve the problems you have mentioned?

Generally, I think the problems will be solved when the higher management makes up its mind to do so. As long as the father does not change his way of acting, the

child will not either. This I say from the point of view I have, say a view from the outside of the higher management.

On a lower level, and first of all, we have to solve the financial situation of the dealers. If we talk about new dealers, this can be done by just looking for dealers that break even with only their aftermarket sales or by looking for new potential dealers that do not have liquidity problems. To solve the problems with our present dealers, one should introduce limits for how large the debts of the dealer can be. Today, as far as I know, there is no limit. So the dealer can keep on selling our parts even if they have millions of pesos in debts. We should have a limit where we simply do not sell any parts if they do not clean up their finances. You can easily monitor the figures of any business in a national register.

The problems with bad administration I believe are an internal problem of Volvo, not a problem of the dealer. A firmer management of the rules we set up for the dealers will be the solution. Look at the first McDonalds in Mexico, in Leon, they simply shut down when they could not attract the market.

The problems of the abuse of our services...I think we can look at similar situations that have surged in other countries and make use of their experiences.

In general, I think Volvo should look at two strategies to be able to go on here in Mexico:

The Japanese style of looking inside the own organization and try to optimize their operations

To be the leader in all areas; sales, excellence of service and attendance to the customer, excellent dealers' net, small service trucks in all parts of the country for emergency situations, and, of course, economic trucks.

What do you think are the real problems and needs of the Mexican customers of trucks?

I think today's customers in Mexico want it all. They want a nice looking product, an accessible product, financial solutions, good service and a good treatment. This is a global tendency.

We have here in Mexico a "cultural jarring sound". Volvo wants to sell expensive trucks to a market and a culture that do not value it. The market does not value "The safety concept" either. What Volvo would need is a strategy of penetration of the market, to reach new customers. We should take better care of our launches of new models. For example, two years ago, we launched the FE, the European style model with straight front. It was not very successful because we had no good penetration strategy. In these days Kenworth will launch a similar truck, and it will be interesting to see their strategy.

Employee 4 October 10, 2003

What do you do within Volvo Trucks in Mexico?

I am in charge of coordinating the Volvo Parts operations in Volvo Trucks. I have two regional parts managers helping me.

I have lately been involved in direct sales to about six independent stores of spare parts, not belonging to Volvo. This I did because we have to arrive at a certain level of sales despite of the 2.5 years we have had with decreasing sales of new trucks.

What major problems do you think the dealers have concerning their activities and business?

70 % of our dealers have no money. These are generally our old dealers, those who developed before our introduction of DOS. Some dealers have been operating only 1.5 years, and they are presenting good results. Texcoco is an outstanding success story; they are performing well in all areas. However, the liquidity problem of the majority of the dealers remains. Until July this year, my group always arrived at the budgeted rate of spare parts sales. But during July, August and September, the sales have decreased with 35%, 35 % and 20 % respectively. Why? Because we had to put an end to the absence of payments from the worst dealers and independent stores. The finance department in Santa Fé told us to quit all direct sales until they started pay again.

One problem related to the lack of money has appeared when we let some dealers pay what they owed us with their inventory. They returned Volvo parts to us instead of money. What happens then? Well, they run short of spare parts and cannot attend the customers with a sufficient stock. This is why right now 80 percent of the orders we get from them are emergency orders, the rest are normal refill orders.

In Mexico 80 % of the sales of truck spare parts comes from independent stores. It is only seven or eight years ago that the OEM:s introduced their sales of spare parts. Freightliner, Navistar - all of them realized all of a sudden that it would be great to have a piece of this $ 1600 million market.

How can Volvo Trucks solve the problems you have mentioned?

We have already initiated a refinancing program to solve the liquidity problems. We, together with a bank and the dealer, try to agree upon a plan where the bank offers some kind of financial help to get the dealer going again. Santa Fé is helping us to establish contacts with appropriate banks matching the dealers.

Another plan we have for the payment problems is a consignment system, i.e. we do not sell the spare parts to our dealers, we just let them sell the parts for us. For the job they get a commission. Volvo will charge about eight percent of the value of the parts, because it costs for us to maintain the control of all parts out there. This can also be seen as a penalty for not being good enough. This system we only maintain until the customers return and the business runs again. I know it works, because I have been working 18 years in Kenworth, and there I was in charge of this kind of actions during six years. The fact is that from having 20 consignment contracts when I started to work with it, in 1.5 years all except one had recovered their business and returned to have their own inventory.

Yet another solution to the credits; I am thinking of introducing a 1-800 telephone line for the customers. If the customer can not get a hold of a spare part at the dealer, they call us directly here at Volvo and they can put an order with their credit card or some other kind of deposit. This would also be a temporary solution until

the dealer gets his business going. And a good thing is that this way we can monitor the dealers. If a customer calls us and says that a dealer does not attend with spare parts, we can easily see if the dealer has financial problems or not. If not, it is his obligation to serve the customer!

Our goal with the actions mentioned is to have full stocks again all over the country in 2004. I mentioned the upcoming problem to Carl Heikel three years ago, but nobody has seen the importance of it. Right now the project is lead by Jaime Rodríguez and has high priority.

Just to add some more information; Volvo's dealer net is very young here in Mexico. I think we managed to build the net in a very short time. What took our competition nine years to create has taken us three. The reason is that many of the employees here in Volvo come from our competition or from suppliers. That way we had a lot of competence for free. Freightliner has had their net for 15 years. Kenworth over 20 years. But we are already close to what they have with our seven years of net establishment. There are many advantages with the experience that was brought to us. For example, negotiations with suppliers many times take 2-12 months until you agree upon a good deal. We have done negotiations in 15 days thanks to our previous contacts.

What do you think are the real problems and needs of the Mexican customers of trucks?

In 1994 Mexico had a big devaluation. Then, people would buy anything without investigating. They did not look at quality or profitability in the long run. Today the customers are becoming very aware of total quality and total service. If they buy a spare part, they do not only look at the price, they ask how long it will keep, if it is easy to replace, if it will be easy to find again...Many people think that the customers still only look at the price. That is not true. Maybe only about 30 % think this way, those who have trucks older than 1990. The rest of the customers want a good price, a fast delivery, good quality and today, additionally, consignment. They want to dedicate themselves to transportation, nothing else. They do not want to keep any stock of spare parts themselves. They want the dealer to provide 150 filters every week if that is the estimated consumption, and they pay afterwards.

Dealers

Dealer 1 October 16, 2003

What do you do within your dealer installation?

Basically I look after the administration and all documents. I work in the area of customer reception and make sure that the repairs we accept will be performed to 100 %. I also make sure that we always have the most demanded spare parts in stock, that we fill our floor with trucks and that nobody will stand without work in the shop. With all things in order, we can save time for the customer. Time saving is the most important factor. We are therefore constantly monitoring our productivity. We have to check how we are receiving the units to the shop, how the deliveries of spares to the shop are performed, how to verify the quality of the mechanics, and how to hand over the ready vehicle to the customer. We have a check list with 40 basic check points to our help when going through the trucks. The defects we encounter are communicated to the customer and if they are warranty issues or not. If not, we communicate the estimated cost and ask for authorization to perform the work. If they say no, we tell them what might happen and within what time frame they can expect trouble. Before the truck leaves, the customer has to sign a paper telling all this. This is very important, because the customer cannot blame us afterwards for not having warned them. The technician carefully goes through every single check point together with the customer. This way we have a double quality check. The customer sees our work, and at the same time we can check that the customer is caring about his truck.

We also try to make the customer contact us a couple of days in advance before the service. In this manner we avoid that we stand without the right spares when it is time for the service, and we can plan our job better.

I have a person in charge of the warranties. I have to supervise that this person is doing his job, i.e. that each warranty work we perform is done in the amount of hours stated in our manual. Each warranty work has a code where you can see how many hours it should take.

We also have to administrate the payments from the customers.

Last but not least we have to visit our customers. Good relations will generate work for the agency and will pay back. If I understand during a visit that the customer intends to invest in new trucks within short, I pass on this information to our sales staff so they can go on offering. Of course we also promote our after sales services during the visits.

One thing we can do to win new customers is to offer them cheaper service. We can also offer monitoring of their trucks. One week before a truck reaches a certain amount of kilometers we contact them and remind of the preventive maintenance they have to do. Just for your information, and this is kind of a cultural problem; Mexicans tend to let their trucks pass the limits for preventive maintenance, because they want their trucks to run 24 hours. They finally loose the control, and some trucks run 40000 km without maintenance.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)

Our principal problem is that the customers often have their own shops. Besides, they rarely have well trained technicians for the works, nor do they mount recommended original spare parts or spare parts of good quality. The customer has lost the concept of good economy this way. What he wins is time, because he do not have to let both one truck and one man go away for several hours. He loses many hours, especially when he shows up without having informed us in advance.

When we call Toluca for support to ask about an item in our spare parts binder, we often get a short answer. "Look it up yourself", they say. It is very annoying because we think that the Volvo staff should be more helpful. They just refer to the documentation.

The Toluca staff does not seem to be very sure themselves, because if they help us they sometimes do not provide the correct information to make us perform our job. Sometimes they also give different information. I should say that in 90 percent of the cases the support from Toluca is very good. But sometimes those 10 percent are very important.

Malfunctioning communication. In general, oral communication seems to fail easily. Phone calls often end up in confusion because we are human beings that do not always remember well and can give contradictory information. We are spending too much time in unnecessary additional phone calls where we fight and say things like "But I told you that..." and the other person says "No I did not! I told you that..." and then the answer is "But Mr. X told me the other day that..." And so on.

Yet another communication problem is the emergency rescue service we have for customer breakdowns in the highway. We have Nextel radio communication that we use internally in the shop. Right now they are not programmed to receive calls from the GSM cell phone net. This could make us loose like half an hour when a truck stands broken in the highway.

The lack of spare parts. This is sometimes understandable though. There are parts that rarely have to be replaced, maybe only every sixth month. Toluca does not have 100% in stock, and then the parts have to be ordered from the US or from Sweden. The customer has to wait, sometimes three days. But it is understandable that Toluca can not keep all items in stock. And to be sincere with you, in the majority of the cases it is our own fault that we do not have the part available.

The customers are abusing warranties. They have their truck repaired here within the warranty period, repairing a non warranty item, we send them the bill and then they simply refuse to pay because they claim that the repair was on the warranty. Sometimes Volvo permits us to prolong the warranty period if it is an important customer, but that is another thing.

How can you as a dealer solve the problems you have mentioned?

We can give spare part discounts to important customers. Unfortunately this can create price wars among the dealers, so it is not the best solution. But it could bring the customer to our shop instead of to his own.

Another way is to let our technicians go to the customer's shop and perform the service, without increasing the price. It is not as profitable, but at least we have jobs. We compete with time, so it is hard to convince them that we can be fast and that the work we do in our own shop has a good quality that will pay off for them.

The communication problems...Partly it is a question of responsibility. But I think we would save a lot of time by sending an e-mail instead of talking, because written information can not be misunderstood in the same way. It might be a cultural thing, this thing that we always have to talk. I would be interested in having e-mail myself. It is faster than telephone many times when the lines are occupied. Maybe we soon can introduce a modern communication system. These days you can do a lot of things electronically or by telecommunication.

We could have a better stock.

What do you think are the real problems and needs of the Mexican customers of trucks?

Excellent attendance, service speed, quality and that we can give them 60 days of credit. Normal is 30 days. We only give 60 days to customers we know very well. Luckily we have only had payment problems with five customers.

Dealer 2 October 20, 2003

What do you do within your dealer installation?

I am officially in charge of cost management, but I also dedicate myself to the acquisition of Volvo parts, exclusively. I order parts from Volvo, check them when they arrive, and keep statistics for the "back orders", i.e. the orders to Volvo where the parts do not arrive in time. Volvo requires me to keep these statistics.

I have three years of experience within the area of spare parts here at the dealer. I used to be stock manager here before. One other thing I have done lately is to order parts to trucks that had accidents.

The thing is that this dealer is part of a bigger group, with one same owner. Our sister company is actually constituting the biggest part of our customers. It is a big transport company with about 1000 trucks. About 90 % of our service demand comes from them.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)

The only problem with Volvo in Toluca is the orders that are converted into back orders. Volvo does not have parts we are looking for in stock. However, these kinds of parts are the ones that are not ordered very frequently, so I do understand if they are not available sometimes.

Our main internal problem is the lack of personnel. We end up in urgent situations all the time. We are loaded with work because the employees leave. I am only contracted for cost management, but have ended up with the Volvo acquisition and other things too. And it takes time to learn. I have been here three years. When I came, I had been working with economy at a big dairy farm. I had no idea about

spare parts handling, neither has any person that starts here. The owner does not have a very good recruitment strategy. People that start to work here do not have any experience of service and spare parts handling. If I left now, it would not be easy for any of the other ones to take over, because they have been here a very short time. People tend to think that "The cost manager is Volvo here". This is of course another bad sign of the situation, because it has converted me into "indispensable".

The main problem with the customers is that we do not attend them in a good manner. We do not have a good control of the stock, and can therefore not provide the spare parts in time. We might have four or five pieces available, but the sixth we do not have. It is because of the bad administration of the stock. Like right now, the stock staff is telling me to buy wash wipers, when the rainy season already is over. I worry more about fog headlights at this moment, because the winter is foggy. I would like a little more of planning. But I am not authorized to order fog headlights before the stock is telling me to.

We take care of a very large amount of vehicles here. Kenworth, DIMA, all the different models of Volvo. And they can all have different motors, like Cummins, Detroit Diesel, Volvo...Only our sister company has got 1000 trucks, and what makes it difficult to maintain and administrate our stock is the variety of vehicles that we repair in our shop. As you can see, we are filled up to the ceiling with parts. I would love if the truck companies only used one type of motor, one type of breaks, etc., and that we decided to only buy one brand of truck from now on. To be honest, the amount of parts is a big headache!

As I told you, our sister company constitutes the biggest part of our customers. This in turn means that we give priority to them before our few external customers. If I were in their shoes, I would not choose this service shop.

We do not have appealing installations to the customers. We have no place where the customer can walk in and take a look at our offerings; neither do they have any place to go when they arrive. No one takes care of them.

Now that you understand that things are not really as they should here, I should tell you the reason to the mess. We have a very, let us say, demanding owner for all of the 14 companies in the group. He is constantly engaging in every part of his group, but in a bad way. He is obviously not having enough knowledge in everything, because he gives a lot of attention to minor issues while he ignores our main headaches. He is also changing his decisions all the time. What counts as very important and has high priority today does not have the same priority tomorrow. This is affecting our work in a negative way. People get tired of never knowing what to do. There are no objectives, no strategies, and there is a continuous lack of information. Additionally, the employer pays very low wages. That is why we have such a big turnover. Two months ago, about 50 administrators left the group. And so, we have a lot of new people all the time that does not know about the business and consequently can not attend the customer in a good way. I think that if we had a referendum today, 90 % would say that this is a very bad place to work.

How can you as a dealer solve the problems you have mentioned?

The problem with the lack of parts would preferably be solved by the truck-making companies themselves. If they only stuck to one brand of all the parts of the vehicle, there would be fewer problems, because then Volvo could afford to keep a higher percentage of their parts in stock, making us and the customers happier. We ourselves can of course ease the problem by shaping up our bad administration. But that will require a big change of management. The current owner will probably not do any progress, unfortunately.

The problem with the huge amount of parts in our stock would be solved with what I just told you about the manufacturing companies concentrating on one brand of everything.

What do you think are the real problems and needs of the Mexican customers of trucks?

The problem for our sister company, that also affects us, is that they currently give their customers very long credits, 90 days is not unusual. They finally run out of money.

The problem for our external customers is that we give priority to our sister company. As I told you, if I were them, I would not choose this service shop. They are not even attended with a real expo-shop.

Dealer 3 October 21, 2003

What do you do within your dealer installation?

I am supporting the other managers in their areas. We form a group of companies, and this Volvo dealer is the parent company. We have several affiliated companies, which are spread out in different areas of the country. As long as we do not sell new trucks in the area of another authorized Volvo dealer, it is all right. We can do as much business in after sales as we want in any geographical area.

We are 22 employees here, and 200 in total in the group. We actually have the lowest amount of administration staff among all 26 dealers.

I make sure that we identify the weaknesses of us and our affiliates, that we arrange the proper training, that we attend the customers. We also let the customers themselves evaluate our operations. What makes us gain the confidence of the customers is that we back them up with real good after sales services. Then they will return and buy new trucks as well. Aftermarket support is very important. Every person involved in a specific area has to stand the customer close in this area.

We have been around selling Volvo for three years now. Volvo sets up a meeting every year for all 26 dealers of the dealers' net. We have been selected the best dealer among them all, because we comply with the requirements Volvo put on us through their quality manual DOS. We won the areas of spare parts and shop service thanks to good figures of customer satisfaction.

We have a special program to check our customer satisfaction. Five days after every kind of repair work, we call the customer to see if everything works, how he felt about the process here at the shop, and so on. This is a close follow-up action that gives us very accurate feedback. And since it is so fresh to everyone, it is easy to relate our mistakes to the specific customer. We learn fast this way, and it is something we do without Volvo explicitly asking us to.

Additionally we keep track of the hours worked per mechanics every year, and we put that in relation to the earnings we make. This is helping us to see trends of our efficiency per workplace and per worker. Then we keep track of the sales of every type of major spare part. We have objectives and outcomes for this too. Volvo only requires a system for these checks; they do not describe them in detail. We then try to enter as much of the information electronically directly, eliminating double work with paper.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)

With Volvo, we do not really have any problem. As you already understand, we follow the wishes of Volvo pretty good.

Internally, we do not have any problems either. To give you an idea, our staff turnover is zero. We are the same people now as three years ago. We try to let everyone participate as much as possible and we see openness, responsibility and good communication as something natural. We do not see our high amount of training hours as a waste of time or money, but as an investment. The staff grows and will generate money for us this way. If you look at training as expenses, then you already have problems.

Some customers are really demanding, but from that we learn a lot too. We have to find the balance between what you can give the customer and what he has to pay for.

What is giving us continuous work is that the customers try to get everything on the warranty. We have to set the limits clearly. If not, the customer will get used to get his will.

How can you as a dealer solve the problems you have mentioned?

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What do you think are the real problems and needs of the Mexican customers of trucks?

Not all Volvo customers do have access to a good dealer. Then they will not be attended in a good way. The presence of dealers and affiliates in every single corner of the country would be desirable but is still not the case, which is understandable since Volvo only has been present on the aftermarket for six years. But we have to cover up better.

The bigger the fleets get, the more they ask for trucks that consume less diesel.

When all comes around, every single customer has its own special problems. It is really hard to generalize. One customer might need to train their personnel; another

is annoyed because the service of three trucks was delayed. You can not really make a recipe that is for all of them. You have to adapt yourself to every single customer.

Interviewer: "- Is there some kind of organized program that Volvo has introduced, to make all of the other dealers learn from your obviously good operations?"

"-The door is always opened. Many other dealers have visited us. Not all of them though. But no, Volvo has no special program together with us or so. They do recommend other dealers to visit us, and they do a good job with their models that tell us how the installations should look like."

Dealer 4 October 28, 2003

What do you do within your dealer installation?

I am in charge of attending the customers as well as looking after all the activities of the dealer, i.e. sales of the service shop and spare parts, sales of new trucks and Volvo buses and all other administrative musts of a businessman. We also sell a few used trucks.

Right now we are in a middle of a project that hopefully will result in a better rotation of our stock. It is important to have a certain turnover so that the parts stored not get obsolete. This gives us a better chance to have the parts the customers look for.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the customers?)

Right now we have problems to collect money from some customers. We spend a lot of time with those that have liquidity problems. We make visits to them and talk in telephone. But it is very hard to collect the money because of the recession. It is like a long chain. The customers of the customers do not pay. Then we are getting in trouble, and finally Volvo. To be able to sell anything at all is the area of spare parts and service, we have to give credits.

Some of the new units we receive are damaged, or also they come with malfunctioning parts mounted. Sometimes parts are missing, such as spare tires, jacks or tools.

We sell new trucks and spare parts and get commissions on our sales. But we have to wait many times until Volvo pays the commissions. This is bad. I told this to the very general manager of Volvo Trucks de México when he was here recently. He said they would pay, but maybe he does not involve himself too much in these details. Anyway, I do not think it is reasonable that our sales manager has to go to your headquarters in Santa Fé and spend 1-2 hours there begging for the commissions.

Since 2001, we have decreased our personnel from 70 to 30 because we have no sales of new trucks. 2000 we sold 178, 2001 163, 2002 44 and until August 2003 we had only sold 17. The dramatic drop is due the bad Mexican economy. Other dealers have had to get rid of even more people. If this trend goes on, you can not keep this kind of business going.

We believe Volvo Financial Credit (VFC) has had a bad attitude. The lack of interest from VFC has been discussed by all dealers. They have been absent from the important direct interactions with customers. To be able to sell new trucks you have to propose ways of financing, right? The dealer together with VFC should together attend the customers, but VFC have only been interested in spending time with customers that can pay. Those customers are few. Those who really need financial aid are more. VFC has improved their behavior lately though. At least the manager of VFC takes off his suit and comes visiting the customers a little more frequently. The reason to the bad attendance could be related to the same problem that we have had ourselves, i.e. the dismissal of personnel. No people, no attendance.

How can you as a dealer solve the problems you have mentioned?

We can solve the problem with the customers that do not pay by selecting other ones, good customers with sane economy. We can also let the customers leave securities on their acquisitions.

The people of Volvo should get themselves together and pay our commissions without delay. If they straighten up their order and give us a little more attention we could get this issue over and done with. Volvo can definitely improve their administration of this.

Volvo Financial Credit gets better and better, but they can still do more visits to the customers. We should support them by accompanying them of course. Then, another solution to the problem is to help the customer to look for alternative methods of financing the acquisitions, helping them to find other associates.

What do you think are the real problems and needs of the Mexican customers of trucks?

Customers need a good overall service. It is especially important to give aftermarket attention. Then the customers will come back. After sales services should simply be magnificent.

Today customers are starting to buy new trucks again. But they ask us to take in their old trucks as down payment; otherwise they will not do business.

Customers have problems with liquidity because of long credits to their clients.

Customers

Customer 1 October 20, 2003

What do you do within your business?

I attend the customers in my zone and try to find new ones. I have been in the business since 1992. I am one of six partners. I coordinate our transports between the US and Mexico. We do between 300 and 500 different types of products. We transport mainly for the consumer industry, but also cement. We have 52 trucks, 22 from Scania, 25 from Volvo and some others.

80-85 % of the Volvo service we leave to the dealer. In our own shop, we basically just repair the Scania trucks and all our trailers.

I think there is a great selection of trucks in Mexico today. Not too many years ago, it was only Kenworth and DINA.

Our drivers base their earnings in what routes they travel. We have introduced limits for how long a driver can go without resting, and this limit is eight hours. Then they have to rest for at least eight hours.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the Volvo dealer?)

The biggest problem we have is the attitude of our truck drivers. There is a lack of discipline among the drivers. It is resulting in that they are bad in keeping the times promised to the customers. They also leave their truck standing still a little too much, they do not care about their trucks, etc.

Some customers are really bad when it comes to respecting the times agreed upon for loading and unloading. We arrive, but instead of loading in two hours like promised, it can take six to eight hours because the customer is simply not ready when we arrive or also they are very slow and ignorant, prioritizing other things. This ruins the planning of our work. In general I think that business to business companies are more respectful. They load and unload with more accuracy. Since we are transporting consumer products we are frequently abused this way... We can rarely charge for the time we stand still loading.

Scania makes very good trucks, but I think they have had some internal problems. They are giving very bad service, so we just buy spare parts from them and do the service in our own shop.

The actual low prices on the market are a problem. It is the same for all businesses I guess, but yes, we have to choose our customers. Some pay really bad right now. And you know, the price of diesel is not really decreasing.

The large amount of rain lately has worsened the roads. So we have to replace many suspensions and tires right now.

How can you solve the problems you have mentioned?

We are trying to solve the problems with our drivers by a training program. We have already initiated a security campaign. We will also throw some courses in how to attend the customers and how to take care of the equipment. We pay our drivers well, but I think we have to make them feel part of the company. We want them to feel more responsible for their work and their truck. So from now on we will take better care of the employees. We will for example invite the family to different events, to make them understand better that we actually care for the drivers and their families. The work affects us all. I think all transport companies have this problem and will have to think more in their workers.

I think the solution to the problem with the non-respecting customers of ours can be solved by a closer cooperation with them. We have to make them understand the importance of punctuality. We can probably convince them if we can lower the prices by saving time.

To be able to compete on the low priced market, we have to find customers that keep promised loading times and that pays well. We would actually prefer the car industry, because they pay fairly well, and care more about time.

Here I have some brands of trucks. (Kenworth, International, Scania, Freightliner, Volvo) Could you please mention some characteristics, negative as well as positive, for each one of them? Please consider the product as well as the offered services, and the image you have of the brands.

Kenworth

Positive: Easy to sell → very commercial. You can find spare parts everywhere.

Negative: Personnel very arrogant. Bad attendance from salesmen of trucks, even worse attendance from personnel of after sales.

International - No experience.

Scania

Positive: Very good truck. Very resistant.

Negative: Lousy service. Expensive maintenance. Personnel without appetite.

Freightliner - No experience.

Volvo

Positive: Nice design. Good truck that functions well. Good yielding.

Negative: Accessories such as headlights and rear-view mirrors very expensive.

Customer 2 October 21, 2003

What do you do within your business?

I am the manager for this operation. We have a small fleet, only eight trucks. Six Volvo, one International and one Freightliner. Two of the Volvos have Volvo motors, the rest Cummins motors.

We transport a lot between the southeast of the country and Mexico City, mainly food. I have been the owner here since 1998. I am the second generation in the business. I have been with my father for many years; he has been in the business for 30 years.

We have a very well working operation. Despite of the recession, thanks to our professionalism, fast transports and training of personnel we have never felt the bad times. Besides, our dealer requires us to do some economic investigations, so the drivers involve themselves in analyzing the business they are part of.

We have no problems with dead times. I work very hard with planning all transportations in advance. All my loadings and unloads are planned to the exact hour. Loading and unloading is generally no problem. With our small fleet we actually compete with fleets that have 100-200 units thanks to the tight planning. And with our customers we have no important problems. They usually pay me in eight days, so liquidity is no problem.

We try to let the drivers work only eight hours, then they should take four-five hours of rest. All of our trucks have air condition. There are transporting companies that think they save money with the diesel they save by not installing air condition. But what happens when a driver arrives to Villahermosa and 38 degrees? He will get tired and a bad driver.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the Volvo dealer?)

In some occasions customers are not ready to do the loading.

With Volvo we have the problem that they have very bad coverage in the southeast where we run our trucks all the time. From Villahermosa to the peninsula of Yucatan, in all that part Volvo has no service.

With our customers we have no important problems. They usually pay me in eight days, so liquidity is no problem. Ok, if some pallet of goods would be damaged while unloading we can get the blame sometimes even if it was not our fault, but that is no big issue.

One problem for all truck companies right now is the excess of us. Therefore we have a rather large price war going on. We try to compete with exact planning and time saving. But other companies compete with excess working hours, excess loads and other tricks that actually are risking the lives of the drivers. We do not.

How can you solve the problems you have mentioned?

When the customers are not ready to do the loading at the time we agreed upon, we have extra trailers spread out along the roads. So we can just leave the trailer at the customer and then go with the truck to do another job.

The hard competition on the market can only be solved by an efficient cost management. Many companies will go bankrupt if they do not care about their costs. We try to compete with exact planning and time saving.

Here I have some brands of trucks. (Kenworth, International, Scania, Freightliner, Volvo) Could you please mention some characteristics, negative as well as positive, for each one of them? Please consider the product as well as the offered services, and the image you have of the brands.

Kenworth

Positive: Good repurchase prices → very commercial.

Negative: Design is out of date. Bad drivers cab environment. Hard suspension, not air.

International

Positive: Modern engineering. Modern design. Good drivers cab environment.

Negative: Small and bad cooling system. Low repurchase prices. Bad delivery of spare parts.

Scania – No experience.

Freightliner

Positive: Good drivers cab environment.

Negative: Lack of spare parts

Volvo

Positive: Good drivers cab environment. Delivery of spare parts. Different and more modern design than all of the others.

Negative: -

Customer 3 October 23, 2003

What do you do within your business?

As general manager I look after purchasing and logistics. We have 18 trucks in our fleet, of which six are Volvo's. Volvo is a good brand for transports. I have had Volvo since 1998 and have had excellent results. Besides, the dealer is providing very good service. We have a good relation and they treat us well.

We mainly transport cement, but also paper. We concentrate on the center and the southeast of the country.

It is a family company.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the Volvo dealer?)

Disloyal competition. There are many trans-national companies out there that are big and destroy the market by lowering the prices. I used to be able to charge 121 pesos per ton to Veracruz. A big company entered and charged 91 pesos. Three years later that company was gone, but it had totally destroyed the business for many small transporters. This is what I mean with disloyal competition.

I think truck manufacturers are destroying both for themselves and for us small transporting companies when they sell directly to what they consider big and important customers. They leave the dealer outside and go directly to the customer with a big discount. Volvo too. How can you?! You crush us! The market goes consolidating and just a few big ones will be left, leaving many of your own dealers without possibilities to survive. Volvo and all other manufacturers should look at their businesses in a much longer perspective. It seems like it does not matter to you if we survive or not. You are happy with selling a new unit and do not think a lot about the after sales business you would benefit from.

The only problem I had with the dealer was when we had a failure of the compressor in a Detroit Diesel motor in a Volvo truck. I had to send the truck to Mexico City because your dealer would not repair it. The excuse was that Volvo does not sell new trucks with motors from Detroit Diesel. That is no excuse, you have to provide spare parts for what you sold recently, not only for what you sell now! I bought the truck 2001. And a truck that is worth more than USD 90 000 you do not really want to stand useless for a long time. Besides, I had to pay the transport to the shop of Detroit Diesel in Mexico City myself. Very bad.

I have a present problem with Volvo Financial Credit. They have not sent me the VAT receipts since January, so I can not fulfill my VAT accounts obligations towards the tax authorities. Volvo is thus causing me accountant difficulties.

You know, there is one problem that does not really seem healthy to Volvo. That is that the repurchasing prices are not at the level they should if one think about the high pricing you have on new trucks. The market does not value your used trucks. For me it does not seem fair that we have to pay a lot for your brand and cannot get enough of our investment back when reselling. If I buy a Kenworth for 93 000 and a Volvo for 93 000, I get 5000 more for the Kenworth when selling.

How can you solve the problems you have mentioned?

We have to improve our transports and work hand in hand with our customers to be able to compete with the disloyal competition. We also look for equipment of better quality to be able to compete with the big ones. And I think we have found the quality in Volvo. But sincerely, this also ought to be something for the government. The laws for this type of disloyal competition should be straightened up.

Stop the direct sales from the truck manufacturers to big transport companies, or give us the same pricing conditions! That is the solution. But to make the manufacturers understand this...Then we, i.e. the SME:s, should unite to be able to convince them of our importance to them. Convince them that we can grow together, both of us, by doing fair business. But you have to back us up to create this win-win situation.

The bad repurchasing prices of Volvo could be solved by lowering the prices for new Volvos with USD 4000-5000. Volvo has to consider this, because there is no space for reinvesting with the present low valuation. I am actually considering in my reinvestment plan to choose Kenworth for the following five to six years.

Concerning the missing receipts from Volvo Financial Credit... Well, soon we will simply stop to pay the interest. This is no threat, but it has to have an end somehow, right?

Here I have some brands of trucks. (Kenworth, International, Scania, Freightliner, Volvo) Could you please mention some characteristics, negative as well as positive, for each one of them? Please consider the product as well as the offered services, and the image you have of the brands.

Kenworth

Positive: Good repurchase prices → very commercial. Strong national support. Good options for financing. Market leader.

Negative: Small drivers cab environment. Hard suspension, not air.

International – No experience

Scania – No experience

Freightliner

Positive: Good quality. Acceptable repurchase prices.

Negative: Stuck with old aerodynamics technology.

Volvo

Positive: Durable because of high quality components, e.g. the drive shaft between the differentials.

Negative: Bad repurchase prices.

Customer 4 October 23, 2003

What do you do within your business?

I have been here for three years and I am responsible for the maintenance. I am continuously involved in projects to make our trucks more profitable. Our company is only dedicated to the transportation of cars. Some cars are imported and we load them in the harbor. Then, as you know, Mexico has a lot of car making companies established.

Our company is running since 13 years. We have 69 big and 15 small trucks. The big ones can carry 13-15 cars, the small ones 6-7. We have 15 Volvo's. The rest is Freightliner and Kenworth. We have five mechanics, one "greaser" and two assistants in our shop. We practically do all our service ourselves; we leave only 1-2 % of the maintenance to the Volvo dealer. The reason is that we do not feel like it is very rapid to leave our trucks to the Volvo shop. We have to wait on our turn, transport the truck there, etc. We know that there are possibilities to write maintenance contracts with Volvo for example, that they can let some technicians come here to do the maintenance in our shop. We have the door opened to proposals of this kind, but so far they have not offered anything.

What major problems do you have concerning your activities and business? (Internal? With Volvo? With the Volvo dealer?)

Generally for Freightliner and Volvo, the delivery of spare parts is very slow. Kenworth is faster. We had to wait three weeks for a "Muelle Z" from Volvo.

The guidance and advice from Volvo is poor. It has improved the last years, but it is because we looked for help ourselves, not because Volvo asked us what needs we have. In general we feel that the support is poor.

We have a need for training on how to drive and take care of your product. I would like to see a list on courses that you give for drivers and mechanics. I miss someone from you coming and offering courses that are adapted to the models of trucks we use. We have our own shop and it is really important that the technicians are up to date. Volvo does not offer courses; we have to look for them.

The truck manufacturer forces us to have a stock of their parts. We do not like this, we would like to keep the stock as limited as possible.

How can you solve the problems you have mentioned?

The slow deliveries...We have already provided a list of the trucks we have to the dealer so that they can keep in stock what we need. We would like to see a better interpretation of our needs. They should know what parts we use by now. If not the dealer has got the part, at least the main stock in Toluca should have it. Maybe the flow of parts from the plants of Volvo could be speeded up somehow.

The lack of training proposals could be solved by Volvo. If they present their training calendar we would gladly sign up for some courses. Preferably for November so that our staff would be prepared for the New Year and the new models.

Here I have some brands of trucks. (Kenworth, International, Scania, Freightliner, Volvo) Could you please mention some characteristics, negative as well as positive, for each one of them? Please consider the product as well as the offered services, and the image you have of the brands.

Kenworth

Positive: Good chassis. Well equipped. Good service.

Negative: -

International - No experience.

Scania – No experience.

Freightliner

Positive: Good chassis. Well equipped. Good supply of parts.

Negative: Slow and bad service. Slow and bad maintenance.

Volvo

Positive: Well equipped. Silent.

Negative: The chassis breaks at the suspension of the power train on our models from 1999. Slow deliveries of spares.

Appendix 4. Interviews with Employees – The Dealers' Problems From the Employees' Point of View

Note: The first and the second columns correspond to question number two. The third column corresponds to question number three.

Apparent Dealer Problem	Perceived Causing Problem	Proposed Solutions
Decreasing sales of new trucks is impacting on the overall profitability of the dealer [3]	Too much focus on new trucks' sales [2] Volvo is perceived as too expensive [3] Volvo does not offer the Mexican market the right models [2]	Emphasize importance of aftermarket sales [1] ... Penetrate larger part of the market with cheaper models [2]
Lack of spare parts in the dealer's stock [4]	Lack of liquidity [4] Caused by Too long credits to end customers [2]	Increasing market share will create negotiating power towards suppliers which will improve margins [1] Promote service of trucks of other brands in our own repair shops [1] Introduce a consignment / commissions system [2] Emphasize importance of aftermarket sales [1] Refinancing programs between dealers and banks [1] Introduce 1-800 number for direct customer spare parts orders [1] Stop sales to dealers that break established debt limits [1]
Stock obsolete [1]	Bad administration of stock [1]	...
Staff does not have enough knowledge [2]	Owners do not understand the importance of training [1] Big turnover of personnel [1] Dealers abuse free training support provided by Volvo [1]	... ... Look at similar situations in other Volvo countries [1]
Customers use their own repair shop [1]	...	Contracts of maintenance in the customer's repair shop [1]
No business knowledge among dealer owners [1]	…	Special business courses for owners [1]
Wrong business focus of the dealer [1]	Too much focus on new trucks' sales [1]	...
Bad administration [1]	…	Firmer management of firmer rules for the dealers [1]
Competition from independent spare parts dealers [1]	OEM's entered late with spare parts sales in Mexico [1]	…

Appendix 5. Interviews with Dealers – The Dealers' Problems From Their Own Point of View

Note: The first and the second columns correspond to question number two. The third column corresponds to question number three.

Apparent Dealer Problem	Perceived Causing Problem	Proposed Solutions
Customers do not use the dealer's shop for technical service [1]	Customers have their own shop [1]	Spare parts discounts to important customers [1] Let dealers' technicians go and do the repair works in the shop of the customer for the same price as in-house [1]
Toluca staff shows a bad attitude when asking them for help with spare parts - they just refer to the spare parts binder [1]	...	...
Toluca staff provide incorrect or contradictory information [1]	...	...
Malfunctioning oral communication in general [1]	Humans tend to forget or interpret oral information wrong [1]	Extended use of e-mail [1]
Dealer can not give fast help to highway emergency breakdown calls [1]	The use of Nextel radio communication internally that is not programmed to receive GSM calls [1]	...
Lack of spare parts in the dealer's stock [2]	Toluca do not have the parts available [2]	A decrease of the large amount of different brands of components would increase the probability of parts availability [1]
	Bad administration of own stock [2]	Improve the administration of own stock [2]
Customers try to get warranty on parts not warrantable [2]	...	Set firm limits to the customer [1]
Overload of work [1]	Lack of personnel [1] ↓ Caused by	...
	Personnel leave [1] ↓ Caused by	...
	Bad human resource management [1]	...
Customers are not attended in a good manner [1]	Bad administration of own stock [1]	...
	Priority is given to dealer's sister transport company [1]	...
	Bad design of dealer's installations repels customers [1]	...
Hard to administrate the stock because of the large amount of different brands of components offered for the trucks [1]	Volvo and other truck manufacturers offer an unnecessary large amount of brands of components [1]	Truck manufacturers should stick to one brand for each component [1]
Customers do not pay in time for spare parts and service [1]	Customers are giving too long credits to their customers [1]	Select new customers that have sane economy [1] Let the customers leave securities on their acquisition [1]
Volvo does not pay the commissions to the dealer [1]	...	Volvo has to improve the administration of the commissions payments [1]
Decreasing sales of new trucks [1]	The recession of the Mexican economy [1]	...
Volvo Financial Credit does not attend the customers well [1]	Decreasing staff resources at Volvo Financial Credit [1]	Volvo Financial Credit should do more frequent visits to the customers [1] Help the customer to find other financial associates [1]
New trucks arrive damaged or with accessories missing / malfunctioning [1]	...	...

Appendix 6. Interviews with Customers – Their Problems From Their Own Point of View

Note: The first and the second columns correspond to question number two. The third column corresponds to question number three.

Apparent Problem	Perceived Causing Problem	Proposed Solutions
Drivers act irresponsible to customers and equipment [1]	Attitude of drivers bad due alienation from the business [1]	Training on customer attendance and equipment care [1] Increase sense of participation [1] Family activities to strengthen bonds to the business [1]
The customers are not ready for loading upon arrival [2]	Customers do not respect the loading times agreed upon [1]	Closer cooperation with the customer [1] Make customers understand the importance of punctuality by lowering prices at successful accurate loading [1] Extra trailers parked along the routes as backup to fill dead times with new transports while waiting [1]
Low pricing of transports on the market [3]	Too many transport companies on the market [1] Large competitors compete disloyally by price-dumping [1] Competition competes with excess loads and driving hours [1]	Improve situation by finding customers that keep promised loading times [1] Improve situation by finding customers that pays well [1] Compete with exact time planning [1] Efficient cost management [1] Work hand in hand with the customer [1] Look for equipment of better quality to be able to compete [1] Legislation to be straightened up to prevent disloyal competition [1]
Difficulties to find service installations [1]	Volvo dealers are not present in every part of the country [1]	...
Bad roads are destroying suspensions and tires [1]	Heavy rains have worsened the roads lately [1]	...
Market is consolidating, leaving small fleets with limited chances to compete [1]	Truck manufacturers sell trucks directly with discount to large fleet operations [1]	Dealers should make no distinction between small and big fleets [1] Stop direct sales to big fleets [1] SME fleets could unite to show their importance to truck manufacturing companies [1]
Customer had to pay his truck transport to a Detroit Diesel (DD) dealer to replace a compressor [1]	Volvo dealer would not offer service for the two-year old compressor because new Volvo trucks are not sold with DD [1]	...
Customer cannot fulfill his VAT account obligations [1]	Volvo Financial Credit (VFC) does not send VAT receipts [1]	Customer consider to cease paying the interests to VFC [1]
Repurchasing prices for Volvo trucks do not correspond to the high price of purchase [1]	The market is valuing the competition higher [1]	Volvo should compensate the bad repurchasing price by lowering the price of purchase[1] Reinvest in Kenworth, which has better repurchasing price [1]
Slow delivery of spare parts [1]	...	Volvo should interpret the spare parts needs of the customer better [1]
Bad support from Volvo [1]	...	Volvo should be more active in supporting the customer [1]
Need of training for drivers and technicians[1]	Volvo does not offer courses to customer [1]	Volvo should offer a training calendar [1]
Manufacturers force customer to have stock of spare parts [1]	...	...

Appendix 7. Main Assignments of the Aftermarket Functions

The *aftermarket director* leads the aftermarket operations and is also member of the VTMX executive group.

The *national service manager* strives for the dealers being as good as possible when it comes to technical service. To his help he has got four regional service managers, each responsible for its own geographical region. These regional managers do frequent visits to their dealers to support them in service matters. The national service manager is also responsible for the 1-800 telephone assistance to breakdowns on the road, a 24-hour service backed up by three technical experts. When a customer has trouble on the highway, the experts try to involve the nearest dealer in the rescuing. Warranty issues are coordinated by these experts as well.

The *national parts manager* is in charge of coordination, sales and distribution of spare parts to the dealers and to independent spare part stores. He has two regional parts managers who are supporting different geographical areas. The group also includes persons dealing with direct shipment (parts that are not passing Toluca) and technical interpretation of parts. An important assignment of the group is to inform the dealers about and train them on spare parts of the trucks. The group had lately worked hard to sell spare parts to independent stores, trying to compensate decreasing sales of trucks and aftermarket service through alternative channels.

The *quality system manager* heads technical and administrative training to the dealers' shop mechanics and their personnel handling spare parts. His department also supports training for the financial administration and sales personnel of the dealers. If customers ask for it, courses in preventive maintenance and operation of the truck can be offered.
Helping the quality system manager out is one training coordinator that administrates and schedules the different courses, and one technical trainer that conducts the technical courses. Administrative training is often outsourced. The courses are carried out in the technical training center in Toluca, alternatively at the dealer or the customer. The training is usually free, and is intended to provide every dealer with skilled staff. No active promotion of training is used towards the customers; they have to ask for training if they want any.

The *procurement and customer service manager* is special in the sense that he and his group dedicate themselves to procurement and special order reception of parts not only for Volvo Trucks, but also for Volvo Buses. The two Volvo companies share the Toluca warehouse as central storage, and this group coordinates the distribution of spare parts for trucks and buses across the country. Most of the bus parts are sent directly to important bus customers, but Volvo Buses also uses 10 of the Volvo Trucks dealers for spare part distribution, repair services, and sales of new buses. The worldwide cooperation between all different Volvo companies in spare parts distribution explains the fact that the aftermarket director is responsible also for this group.

The *logistics manager* heads up the central warehouse operations. He is manager for two warehouse assistants, two warehouse supervisors, one invoicing assistant and

the warehousemen picking and loading all the parts that are being shipped out to dealers and independent stores. Like the previous group, this group is also supporting both Volvo Trucks and Volvo Buses.

Separated from the aftermarket organization and formally working under the vice president of new trucks sales in Santa Fé is the *dealer development* function. When new geographical areas are to be covered with sales and services, or when any of the established dealers leaves or is phased out by Volvo, the dealer development function evaluates businesses that want to enter and become new full line dealers. It also heads the continuous evaluation of the dealers' performance.

The *dealers* consist of 19 full line dealers, offering sales of new trucks as well as spare parts and maintenance in their service shops. They also have an exhibition of new trucks and parts. 10 of the dealers share its installations with Volvo Buses, which mean that they also sell new buses and offer service and parts for buses. In addition to the 19 full line dealers, there are seven affiliates, each of them depending on one of the full line dealers. They can usually only offer sales of spare parts and repair shop services.

Appendix 8. Questionnaire Results

VOLVO

Volvo Trucks de México, S.A. de C.V.

Questionnaire 2003
Customer Satisfaction Index

Responsible: Jaime Rodriguez, Anders Parmbro
Tool: Zoomerang zPro, www.zoomerang.com

Valid responses Group 1 (ANTP)	18	of 68 valid questionnaires sent = 26,5 %
Valid responses Group 2 (Volvo)	11	of 77 valid questionnaires sent = 14,3 %
Valid responses, total:	29	of 145 valid questionnaires sent = 20 %

1. What brands of trucks do you have in your fleet? You can choose more than one brand.

	Group 1	Group 2	Total	Percentage
Freightliner	12	7	19	66%
Scania	0	1	1	3%
Kenworth	13	9	22	76%
International	6	6	12	41%
Volvo	6	7	13	45%
Other(s)	3	4	7	24%

2. The size of your fleet?

	Group 1	Group 2	Total	Percentage
1 to 10	2	1	3	10%
11 to 20	3	3	6	21%
21 to 50	2	1	3	10%
51 to 100	6	2	8	28%
101 to 200	3	2	5	17%
201 to 500	1	1	2	7%
More than 500	1	1	2	7%
Total:	18	11	29	100%

4. What level of influence do you have when it comes to taking the decision of buying new trucks?

	Group 1	Group 2	Total	Percentage
No influence	0	0	0	0%
Propose	1	2	3	10%
Influencing	2	3	5	17%
Very influencing	6	4	10	34%
Decisive	9	2	11	38%
Total:	18	11	29	100%

5. The reliability of the unit:

	Number	Percentage
1. Not important	1	3%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	4	14%
5. Very important	24	83%
Total:	29	100%
Importance:	4,72	

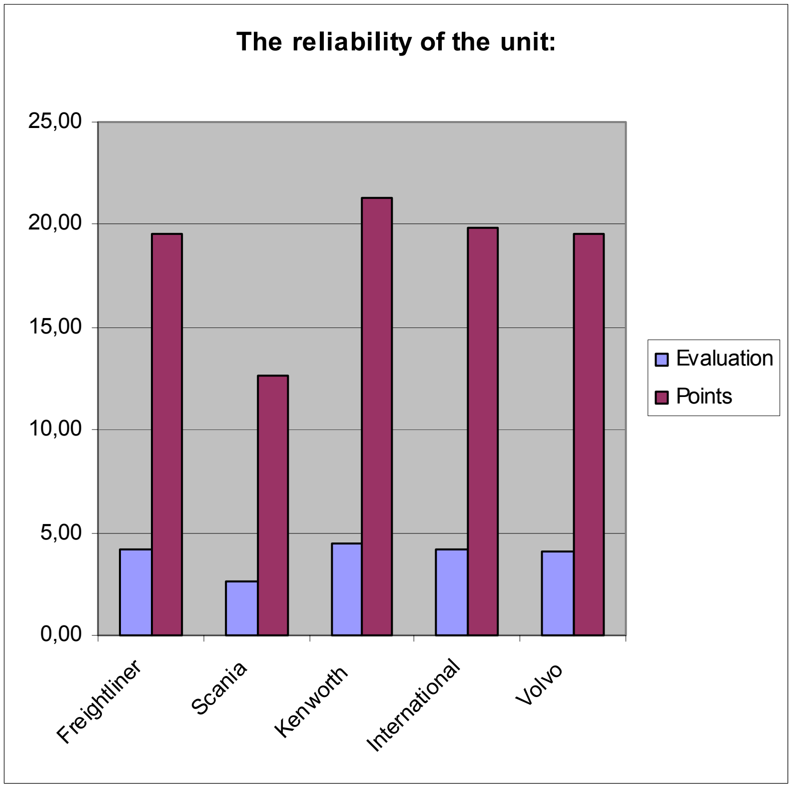
6. The reliability of the unit:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	5%	5%	64%	27%			
Scania	0%	33%	67%	0%	0%			
Kenworth	0%	0%	8%	33%	58%			
International	0%	7%	20%	20%	53%			
Volvo	0%	0%	20%	47%	33%			
Freightliner	0	1	1	14	6	22	5	19%
Scania	0	1	2	0	0	3	16	84%
Kenworth	0	0	2	8	14	24	2	8%
International	0	1	3	3	8	15	6	29%
Volvo	0	0	3	7	5	15	7	32%

The reliability of the unit

Importance: 4,72

	Evaluation	Points
Freightliner	4,14	19,5
Scania	2,67	12,6
Kenworth	4,50	21,3
International	4,20	19,8
Volvo	4,13	19,5



7. The use of advanced technology:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	1	3%
4. Important	10	34%
5. Very important	18	62%
Total:	29	100%
Importance:	4,59	

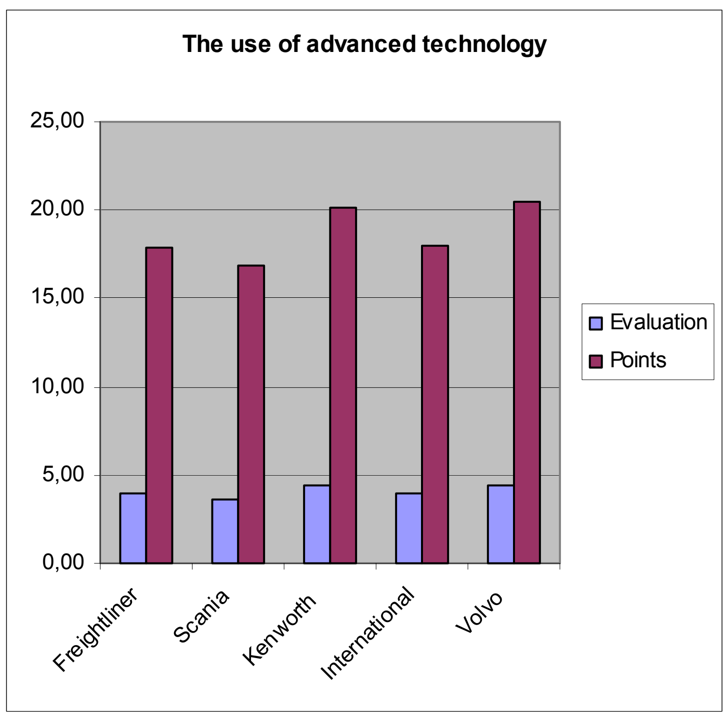
8. The use of advanced technology:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	5%	18%	59%	18%			
Scania	0%	0%	33%	67%	0%			
Kenworth	0%	0%	13%	35%	52%			
International	0%	7%	13%	60%	20%			
Volvo	0%	0%	7%	40%	53%			
Freightliner	0	1	4	13	4	22	4	15%
Scania	0	0	1	2	0	3	15	83%
Kenworth	0	0	3	8	12	23	2	8%
International	0	1	2	9	3	15	6	29%
Volvo	0	0	1	6	8	15	6	29%

The use of advanced technology

Importance: 4,59

	Evaluation	Points
Freightliner	3,91	17,9
Scania	3,67	16,8
Kenworth	4,39	20,1
International	3,93	18,0
Volvo	4,47	20,5



9. The reputation of the brand:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	21	72%
5. Very important	8	28%
Total:	29	100%
Importance:	4,28	

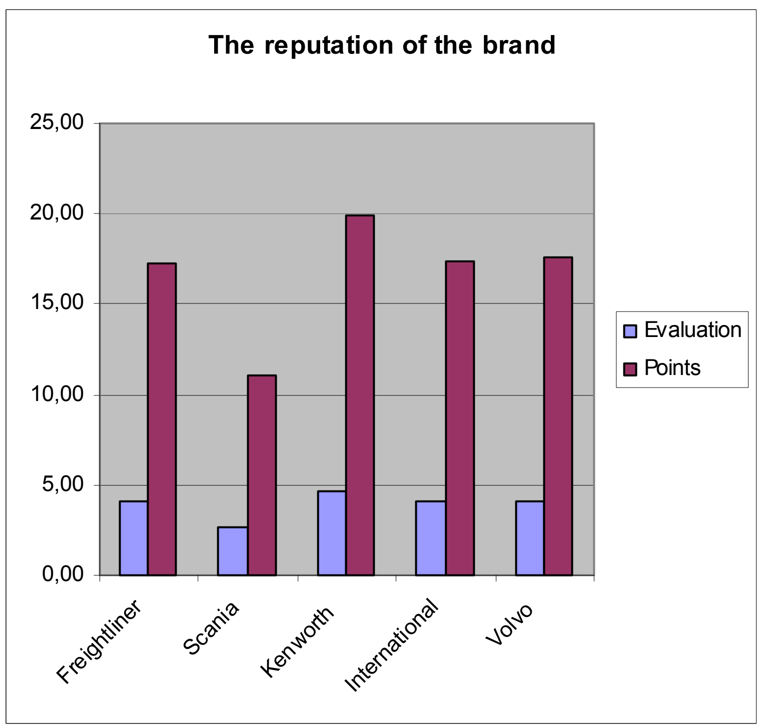
10. The reputation of the brand:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	0%	13%	71%	17%			
Scania	0%	60%	20%	20%	0%			
Kenworth	0%	0%	8%	17%	75%			
International	0%	7%	0%	73%	20%			
Volvo	0%	0%	19%	50%	31%			
Freightliner	0	0	3	17	4	24	3	11%
Scania	0	3	1	1	0	5	14	74%
Kenworth	0	0	2	4	18	24	1	4%
International	0	1	0	11	3	15	6	29%
Volvo	0	0	3	8	5	16	5	24%

The reputation of the brand

Importance: 4,28

	Evaluation	Points
Freightliner	4,04	17,3
Scania	2,60	11,1
Kenworth	4,67	20,0
International	4,07	17,4
Volvo	4,13	17,6



11. The comfort for the driver:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	4	14%
4. Important	14	48%
5. Very important	11	38%
Total:	29	100%
Importance:	4,24	

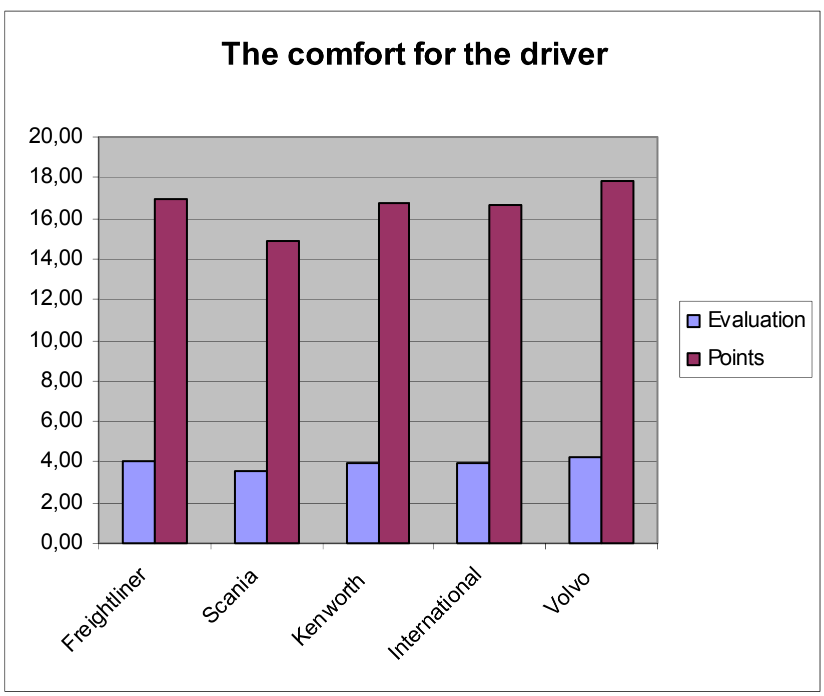
12. The comfort for the driver:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	4%	17%	52%	26%			
Scania	0%	25%	25%	25%	25%			
Kenworth	0%	4%	17%	57%	22%			
International	0%	0%	20%	67%	13%			
Volvo	0%	7%	7%	47%	40%			
Freightliner	0	1	4	12	6	23	3	12%
Scania	0	1	1	1	1	4	14	78%
Kenworth	0	1	4	13	5	23	2	8%
International	0	0	3	10	2	15	5	25%
Volvo	0	1	1	7	6	15	5	25%

The comfort for the driver

Importance: 4,24

	Evaluation	Points
Freightliner	4,00	17,0
Scania	3,50	14,8
Kenworth	3,96	16,8
International	3,93	16,7
Volvo	4,20	17,8



13. The environmental care:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	11	38%
5. Very important	18	62%
Total:	29	100%
Importance:	4,62	

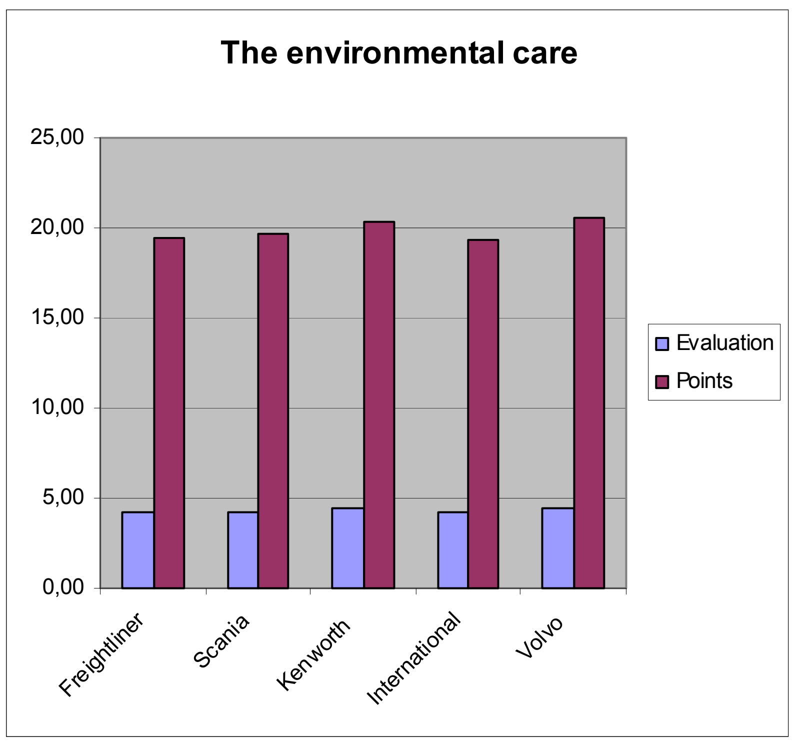
14. The environmental care:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	0%	4%	70%	26%			
Scania	0%	0%	0%	75%	25%			
Kenworth	0%	0%	4%	52%	43%			
International	0%	0%	6%	69%	25%			
Volvo	0%	0%	6%	44%	50%			
Freightliner	0	0	1	16	6	23	4	15%
Scania	0	0	0	3	1	4	15	79%
Kenworth	0	0	1	12	10	23	2	8%
International	0	0	1	11	4	16	6	27%
Volvo	0	0	1	7	8	16	6	27%

The environmental care

Importance: 4,62

	Evaluation	Points
Freightliner	4,22	19,5
Scania	4,25	19,6
Kenworth	4,39	20,3
International	4,19	19,3
Volvo	4,44	20,5



15. The truck safety for the driver and other road-users:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	8	28%
5. Very important	21	72%
Total:	29	100%
Importance:	4,72	

16. The truck safety for the driver and other road-users:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	4%	4%	65%	26%			
Scania	0%	0%	20%	80%	0%			
Kenworth	0%	0%	13%	48%	39%			
International	0%	0%	19%	44%	38%			
Volvo	0%	0%	13%	33%	53%			
Freightliner	0	1	1	15	6	23	4	15%
Scania	0	0	1	4	0	5	15	75%
Kenworth	0	0	3	11	9	23	2	8%
International	0	0	3	7	6	16	5	24%
Volvo	0	0	2	5	8	15	6	29%

The truck safety for the driver and other road-users

Importance: 4,72

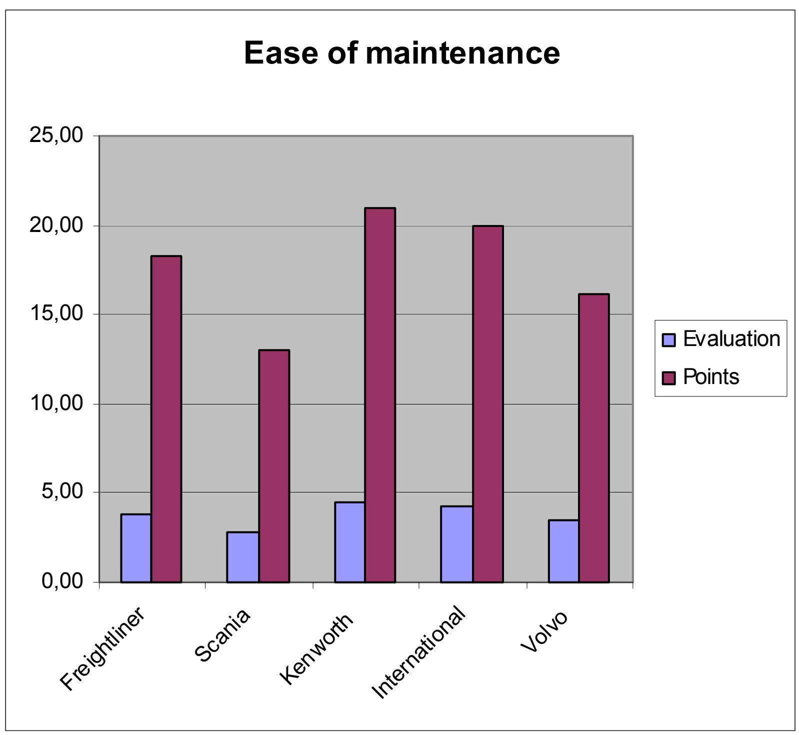
	Evaluation	Points
Freightliner	4,13	19,5
Scania	3,80	18,0
Kenworth	4,26	20,1
International	4,19	19,8
Volvo	4,40	20,8

17. Ease of maintenance:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	8	28%
5. Very important	21	72%
Total:	29	100%
Importance:	4,72	

18. Ease of maintenance:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	0%	27%	59%	14%			
Scania	25%	25%	25%	0%	25%			
Kenworth	0%	0%	9%	39%	52%			
International	0%	0%	0%	79%	21%			
Volvo	0%	21%	14%	64%	0%			
Freightliner	0	0	6	13	3	22	5	19%
Scania	1	1	1	0	1	4	15	79%
Kenworth	0	0	2	9	12	23	2	8%
International	0	0	0	11	3	14	6	30%
Volvo	0	3	2	9	0	14	7	33%



Ease of maintenance

Importance: 4,72

	Evaluation	Points
Freightliner	3,86	18,3
Scania	2,75	13,0
Kenworth	4,43	21,0
International	4,21	19,9
Volvo	3,43	16,2

19. The publicity the manufacturers do to call the attention of their brands:

	Number	Percentage
1. Not important	1	4%
2. Little important	5	18%
3. Neutral	15	54%
4. Important	7	25%
5. Very important	0	0%
Total:	28	100%
Importance:	3,00	

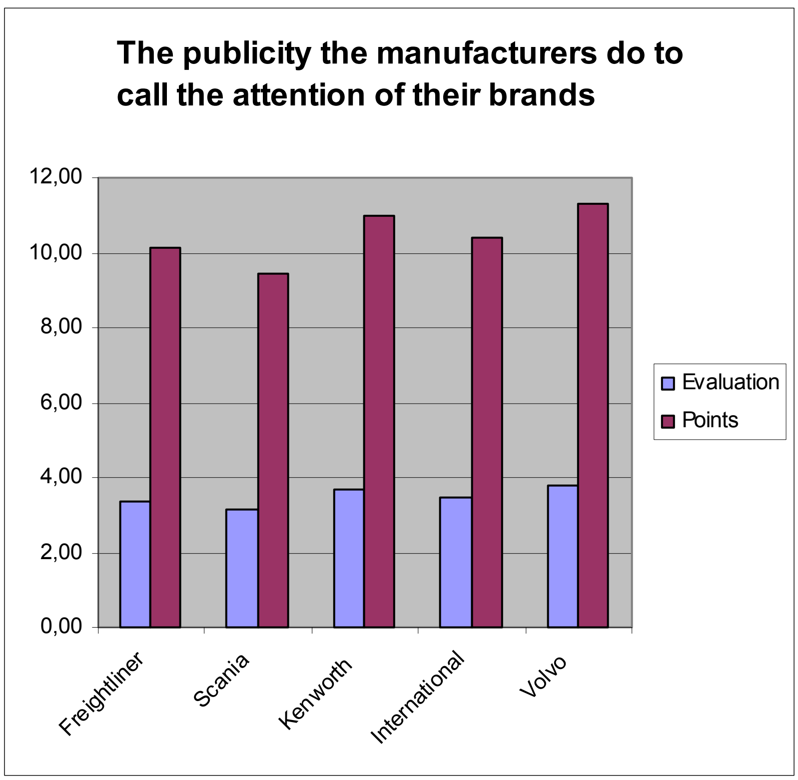
20. The publicity the manufacturers do to call the attention of their brands:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory			
Freightliner	0%	8%	46%	46%	0%			
Scania	14%	0%	43%	43%	0%			
Kenworth	4%	0%	33%	50%	13%			
International	0%	0%	59%	35%	6%			
Volvo	0%	6%	33%	39%	22%	# Eval.	N/A	% N/A
Freightliner	0	2	11	11	0	24	3	11%
Scania	1	0	3	3	0	7	12	63%
Kenworth	1	0	8	12	3	24	1	4%
International	0	0	10	6	1	17	4	19%
Volvo	0	1	6	7	4	18	3	14%

The publicity the manufacturers do to call the attention of their brands

Importance: 3,00

	Evaluation	Points
Freightliner	3,38	10,1
Scania	3,14	9,4
Kenworth	3,67	11,0
International	3,47	10,4
Volvo	3,78	11,3



21. The drivers' satisfaction with the truck:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	1	4%
4. Important	14	50%
5. Very important	13	46%
Total:	28	100%
Importance:	4,43	

22. The drivers' satisfaction with the truck:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	9%	9%	70%	13%			
Scania	0%	25%	75%	0%	0%			
Kenworth	0%	0%	9%	39%	52%			
International	0%	0%	13%	60%	27%			
Volvo	0%	13%	7%	53%	27%			
Freightliner	0	2	2	16	3	23	1	4%
Scania	0	1	3	0	0	4	14	78%
Kenworth	0	0	2	9	12	23	2	8%
International	0	0	2	9	4	15	6	29%
Volvo	0	2	1	8	4	15	6	29%

The drivers' satisfaction with the truck

Importance: 4,43

	Evaluation	Points
Freightliner	3,87	17,1
Scania	2,75	12,2
Kenworth	4,43	19,6
International	4,13	18,3
Volvo	3,93	17,4

23. The price of purchase related to the perceived value of the truck:

	Number	Percentage
1. Not important	0	0%
2. Little important	1	4%
3. Neutral	0	0%
4. Important	8	29%
5. Very important	19	68%
Total:	28	100%
Importance:	4,61	

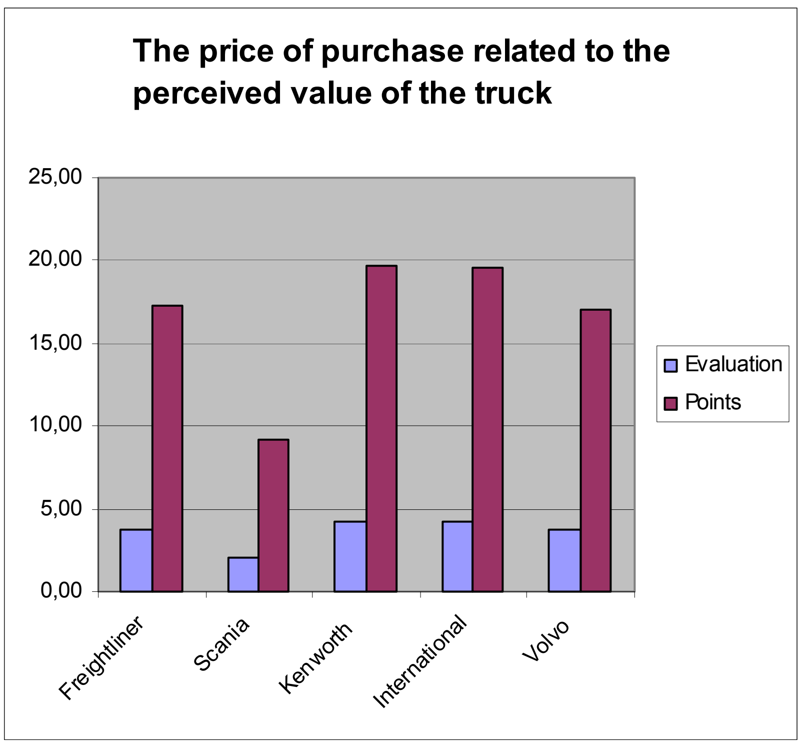
24. The price of purchase related to the perceived value of the truck

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	5%	15%	80%	0%			
Scania	33%	33%	33%	0%	0%			
Kenworth	0%	0%	19%	33%	48%			
International	0%	0%	8%	58%	33%			
Volvo	8%	0%	23%	54%	15%			
Freightliner	0	1	3	16	0	20	5	20%
Scania	1	1	1	0	0	3	15	83%
Kenworth	0	0	4	7	10	21	2	9%
International	0	0	1	7	4	12	7	37%
Volvo	1	0	3	7	2	13	6	32%

The price of purchase related to the perceived value of the truck

Importance: 4,61

	Evaluation	Points
Freightliner	3,75	17,3
Scania	2,00	9,2
Kenworth	4,29	19,7
International	4,25	19,6
Volvo	3,69	17,0



25. The cost of operation (For maintenance, fuel, repair work etc.):

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	6	21%
5. Very important	23	79%
Total:	29	100%
Importance:	4,79	

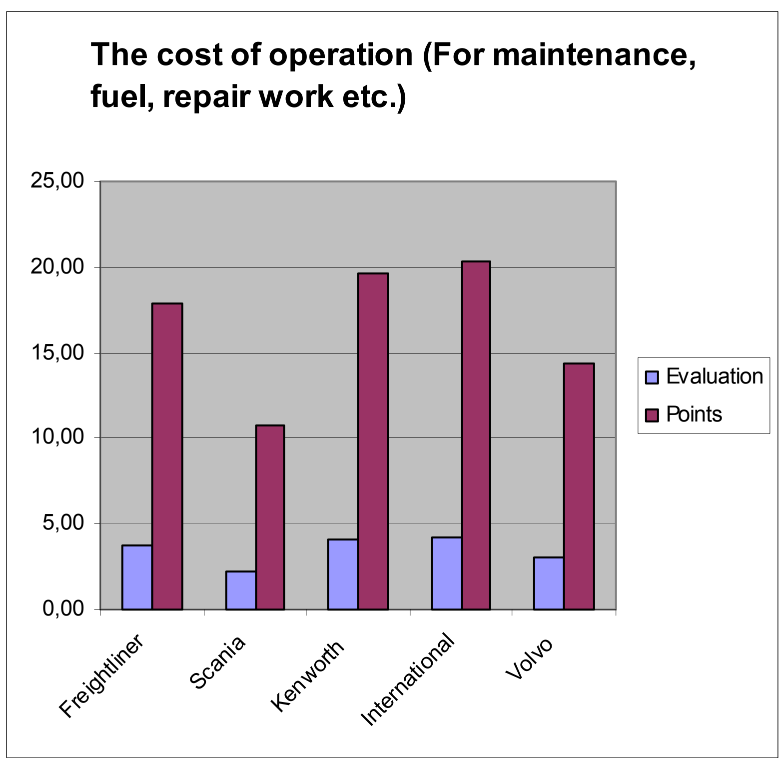
26. The cost of operation (For maintenance, fuel, repair work etc.):

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	14%	5%	77%	5%			
Scania	25%	25%	50%	0%	0%			
Kenworth	0%	9%	4%	57%	30%			
International	0%	0%	8%	62%	31%			
Volvo	7%	36%	7%	50%	0%			
Freightliner	0	3	1	17	1	22	5	19%
Scania	1	1	2	0	0	4	15	79%
Kenworth	0	2	1	13	7	23	2	8%
International	0	0	1	8	4	13	8	38%
Volvo	1	5	1	7	0	14	7	33%

The cost of operation (For maintenance, fuel, repair work etc.)

Importance: 4,79

	Evaluation	Points
Freightliner	3,73	17,9
Scania	2,25	10,8
Kenworth	4,09	19,6
International	4,23	20,3
Volvo	3,00	14,4

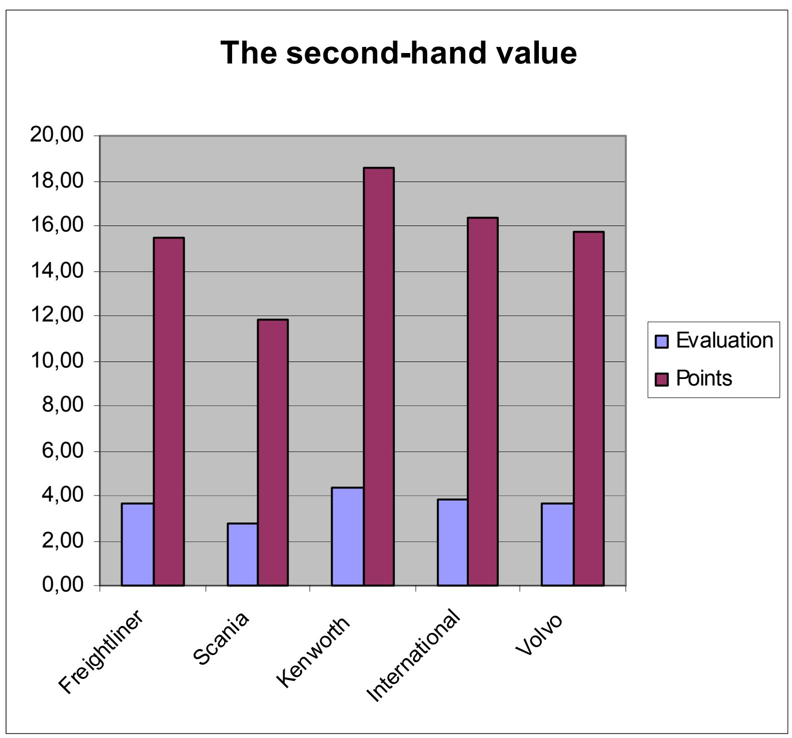


27. The second-hand value:

	Number	Percentage
1. Not important	0	0%
2. Little important	1	4%
3. Neutral	4	14%
4. Important	9	32%
5. Very important	14	50%
Total:	28	100%
Importance:	4,29	

28. The second-hand value:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	5%	29%	67%	0%			
Scania	0%	25%	75%	0%	0%			
Kenworth	0%	0%	14%	38%	48%			
International	0%	0%	18%	82%	0%			
Volvo	0%	8%	17%	75%	0%			
Freightliner	0	1	6	14	0	21	4	16%
Scania	0	1	3	0	0	4	13	76%
Kenworth	0	0	3	8	10	21	2	9%
International	0	0	2	9	0	11	8	42%
Volvo	0	1	2	9	0	12	7	37%



The second-hand value

Importance: 4,29

	Evaluation	Points
Freightliner	3,62	15,5
Scania	2,75	11,8
Kenworth	4,33	18,6
International	3,82	16,4
Volvo	3,67	15,7

29. The opinions of the drivers to decide what truck to buy:

	Number	Percentage
1. Not important	2	7%
2. Little important	3	10%
3. Neutral	8	28%
4. Important	10	34%
5. Very important	6	21%
Total:	29	100%
Importance:	3,52	

30. The possibility to select different brands of components (For example: Engines, gear boxes, transmissions, etc.):

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	1	3%
4. Important	11	38%
5. Very important	17	59%
Total:	29	100%
Importance:	4,55	

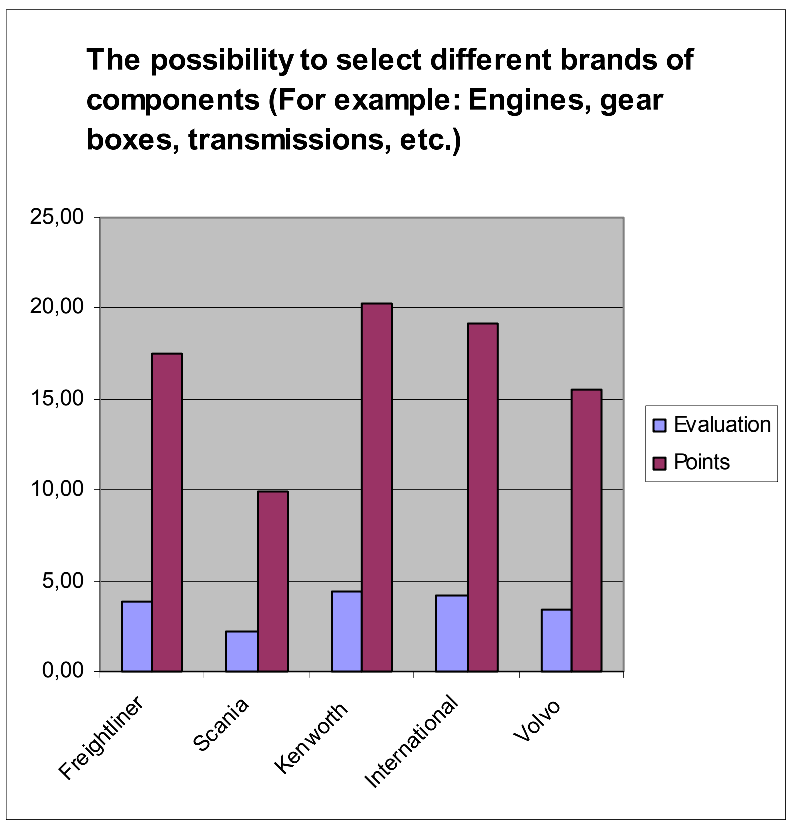
31. The possibility to select different brands of components (For example: Engines, gear boxes, transmissions, etc.):

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	0%	33%	48%	19%			
Scania	17%	50%	33%	0%	0%			
Kenworth	0%	0%	9%	36%	55%			
International	0%	0%	20%	40%	40%			
Volvo	7%	7%	33%	47%	7%			
Freightliner	0	0	7	10	4	21	4	16%
Scania	1	3	2	0	0	6	11	65%
Kenworth	0	0	2	8	12	22	1	4%
International	0	0	3	6	6	15	4	21%
Volvo	1	1	5	7	1	15	4	21%

The possibility to select different brands of components (For example: Engines, gear boxes, transmissions, etc.)

Importance: 4,55

	Evaluation	Points
Freightliner	3,86	17,6
Scania	2,17	9,9
Kenworth	4,45	20,3
International	4,20	19,1
Volvo	3,40	15,5



32. Financial support from the manufacturer:

	Number	Percentage
1. Not important	2	7%
2. Little important	2	7%
3. Neutral	6	22%
4. Important	8	30%
5. Very important	9	33%
Total:	27	100%
Importance:	3,74	

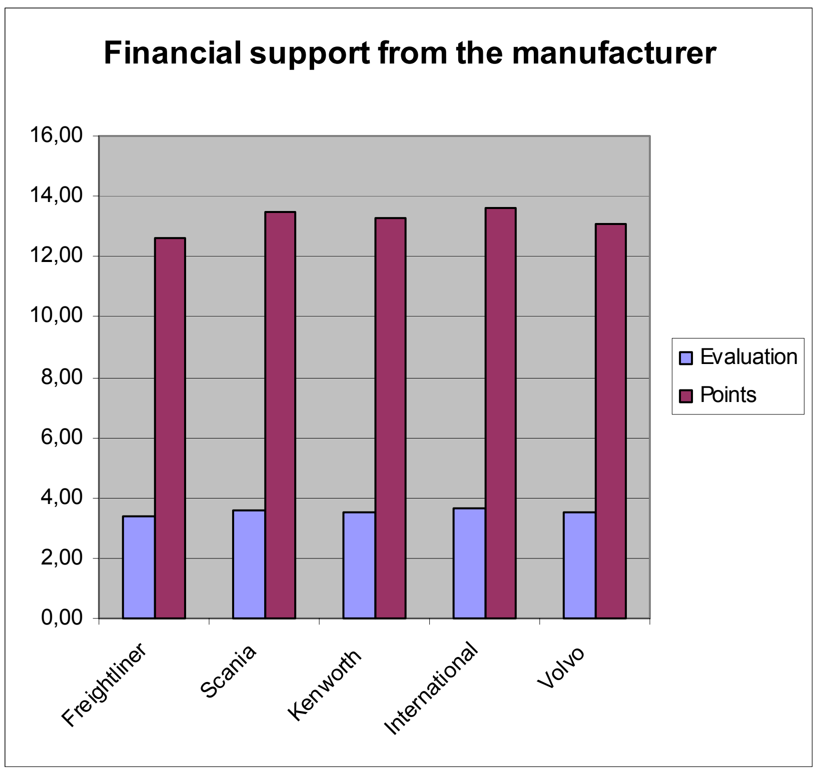
33. Financial support from the manufacturer:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	5%	53%	42%	0%			
Scania	0%	0%	40%	60%	0%			
Kenworth	0%	15%	35%	30%	20%			
International	0%	14%	29%	36%	21%			
Volvo	0%	13%	50%	13%	25%			
Freightliner	0	1	10	8	0	19	6	24%
Scania	0	0	2	3	0	5	12	71%
Kenworth	0	3	7	6	4	20	2	9%
International	0	2	4	5	3	14	5	26%
Volvo	0	1	4	1	2	8	5	38%

Financial support from the manufacturer

Importance: 3,74

	Evaluation	Points
Freightliner	3,37	12,6
Scania	3,60	13,5
Kenworth	3,55	13,3
International	3,64	13,6
Volvo	3,50	13,1



34. The warranty:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	1	4%
4. Important	8	30%
5. Very important	18	67%
Total:	27	100%
Importance:	4,63	

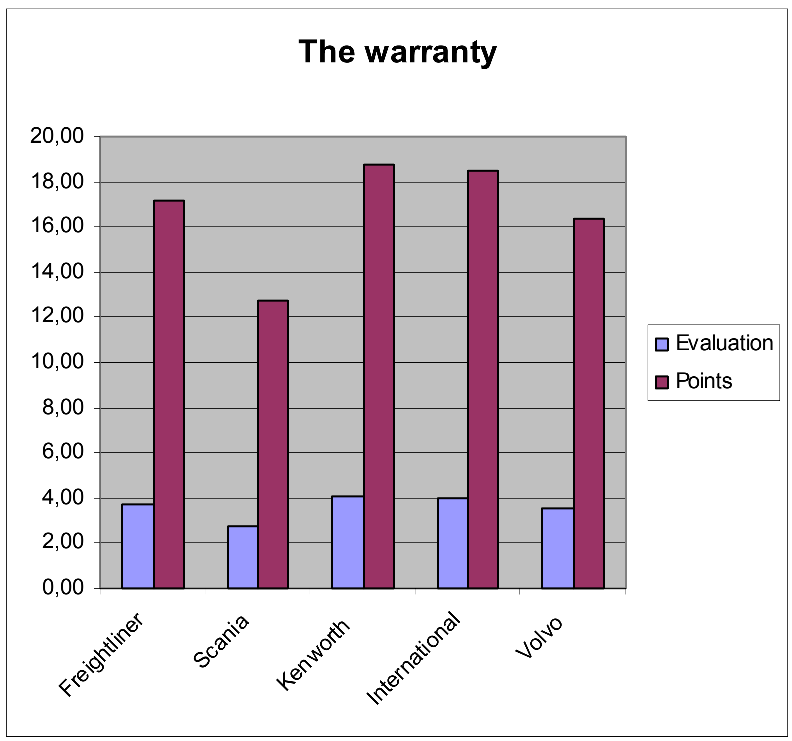
35. The warranty:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	10%	10%	80%	0%			
Scania	0%	50%	25%	25%	0%			
Kenworth	0%	0%	23%	50%	27%			
International	0%	0%	21%	57%	21%			
Volvo	0%	15%	23%	54%	8%			
Freightliner	0	2	2	16	0	20	5	20%
Scania	0	2	1	1	0	4	13	76%
Kenworth	0	0	5	11	6	22	1	4%
International	0	0	3	8	3	14	5	26%
Volvo	0	2	3	7	1	13	5	28%

The warranty

Importance: 4,63

	Evaluation	Points
Freightliner	3,70	17,1
Scania	2,75	12,7
Kenworth	4,05	18,7
International	4,00	18,5
Volvo	3,54	16,4



36. The dealer net:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	11	41%
5. Very important	16	59%
Total:	27	100%
Importance:	4,59	

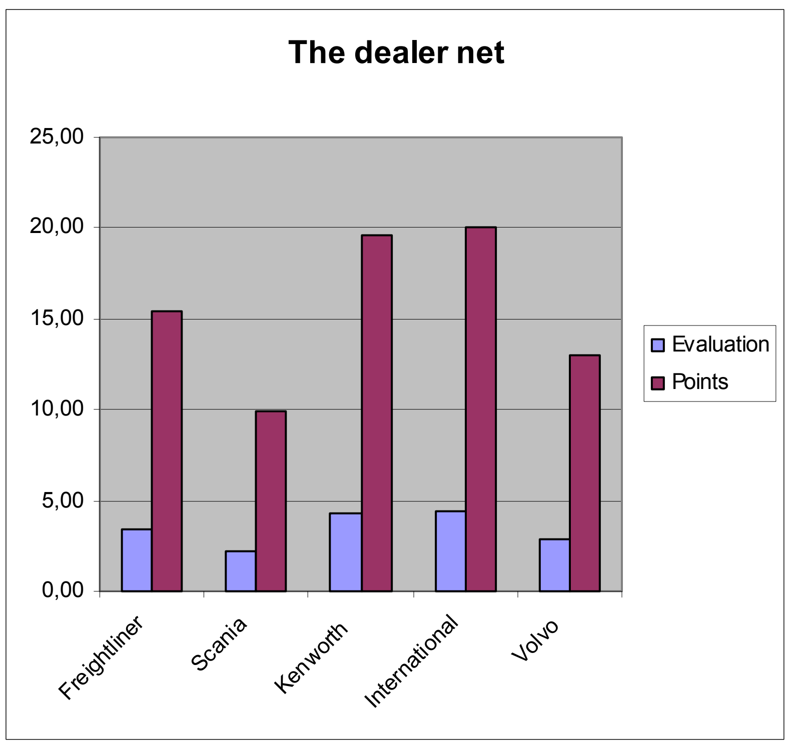
37. The dealer net:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	5%	21%	11%	58%	5%			
Scania	17%	50%	33%	0%	0%			
Kenworth	0%	6%	6%	44%	44%			
International	0%	0%	7%	50%	43%			
Volvo	17%	33%	17%	17%	17%			
Freightliner	1	4	2	11	1	19	7	27%
Scania	1	3	2	0	0	6	11	65%
Kenworth	0	1	1	8	8	18	2	10%
International	0	0	1	7	6	14	3	18%
Volvo	2	4	2	2	2	12	6	33%

The dealer net

Importance: 4,59

	Evaluation	Points
Freightliner	3,37	15,5
Scania	2,17	10,0
Kenworth	4,28	19,6
International	4,36	20,0
Volvo	2,83	13,0



38. The presence of personnel attending you at the dealer:

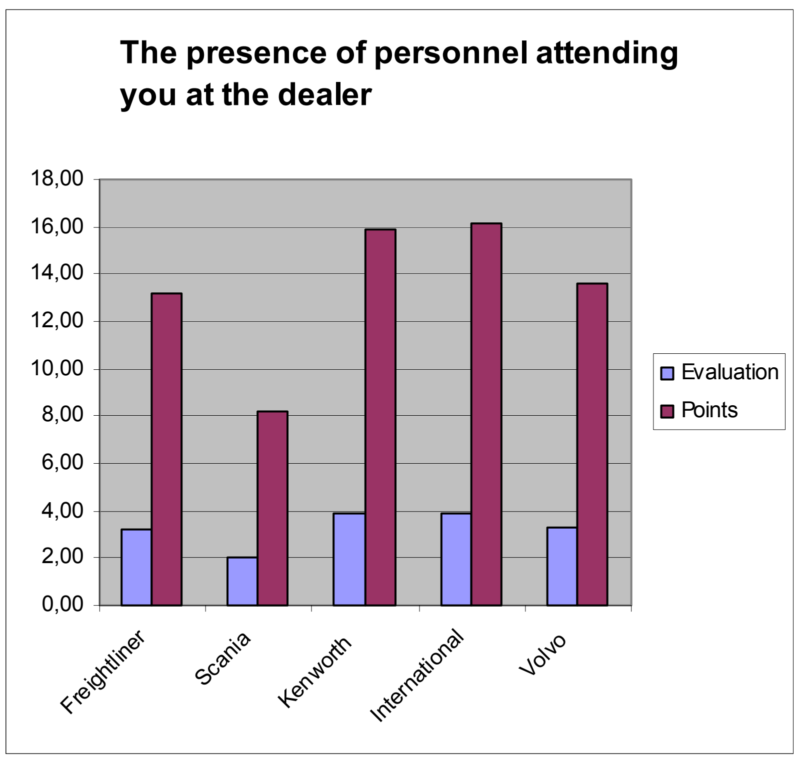
	Number	Percentage
1. Not important	0	0%
2. Little important	1	4%
3. Neutral	5	19%
4. Important	11	41%
5. Very important	10	37%
Total:	27	100%
Importance:	4,11	

39. The presence of personnel attending you at the dealer:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	5%	16%	32%	47%	0%			
Scania	33%	33%	33%	0%	0%			
Kenworth	0%	5%	24%	52%	19%			
International	0%	0%	25%	58%	17%			
Volvo	0%	23%	23%	54%	0%			
Freightliner	1	3	6	9	0	19	5	21%
Scania	1	1	1	0	0	3	14	82%
Kenworth	0	1	5	11	4	21	1	5%
International	0	0	3	7	2	12	6	33%
Volvo	0	3	3	7	0	13	5	28%

The presence of personnel attending you at the dealer

Importance:	4,11	
	Evaluation	Points
Freightliner	3,21	13,2
Scania	2,00	8,2
Kenworth	3,86	15,9
International	3,92	16,1
Volvo	3,31	13,6



40. Training for drivers offered by the manufacturer:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	2	7%
4. Important	11	41%
5. Very important	14	52%
Total:	27	100%
Importance:	4,44	

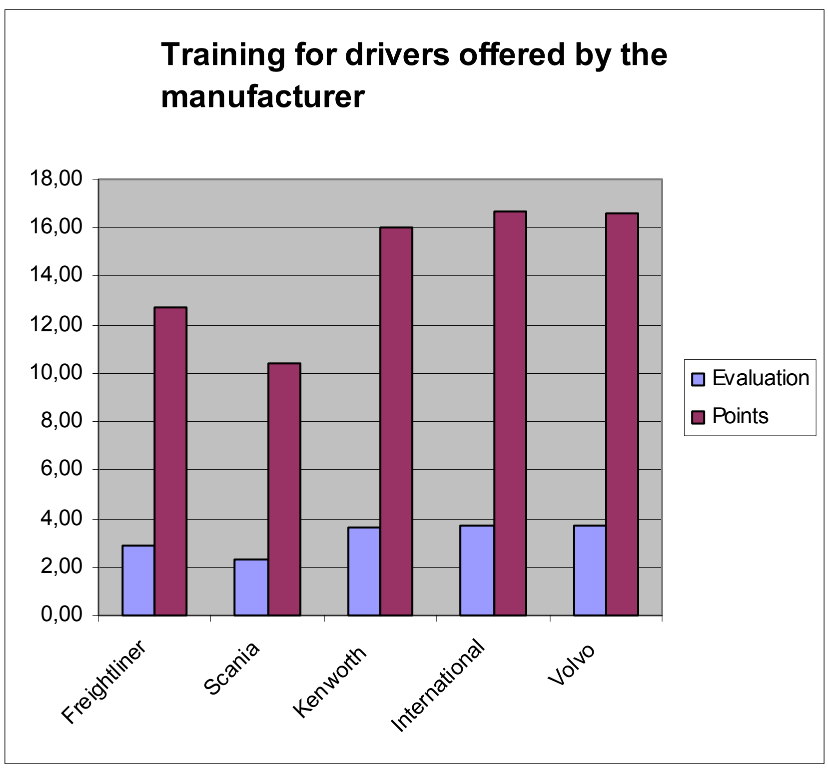
41. Training for drivers offered by the manufacturer:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	13%	20%	33%	33%	0%			
Scania	0%	67%	33%	0%	0%			
Kenworth	5%	20%	15%	30%	30%			
International	0%	17%	17%	42%	25%			
Volvo	0%	18%	18%	36%	27%			
Freightliner	2	3	5	5	0	15	7	32%
Scania	0	2	1	0	0	3	13	81%
Kenworth	1	4	3	6	6	20	1	5%
International	0	2	2	5	3	12	5	29%
Volvo	0	2	2	4	3	11	7	39%

Training for drivers offered by the manufacturer

Importance: 4,44

	Evaluation	Points
Freightliner	2,87	12,7
Scania	2,33	10,4
Kenworth	3,60	16,0
International	3,75	16,7
Volvo	3,73	16,6



42. Training for mechanics offered by the manufacturer:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	10	38%
5. Very important	16	62%
Total:	26	100%
Importance:	4,62	

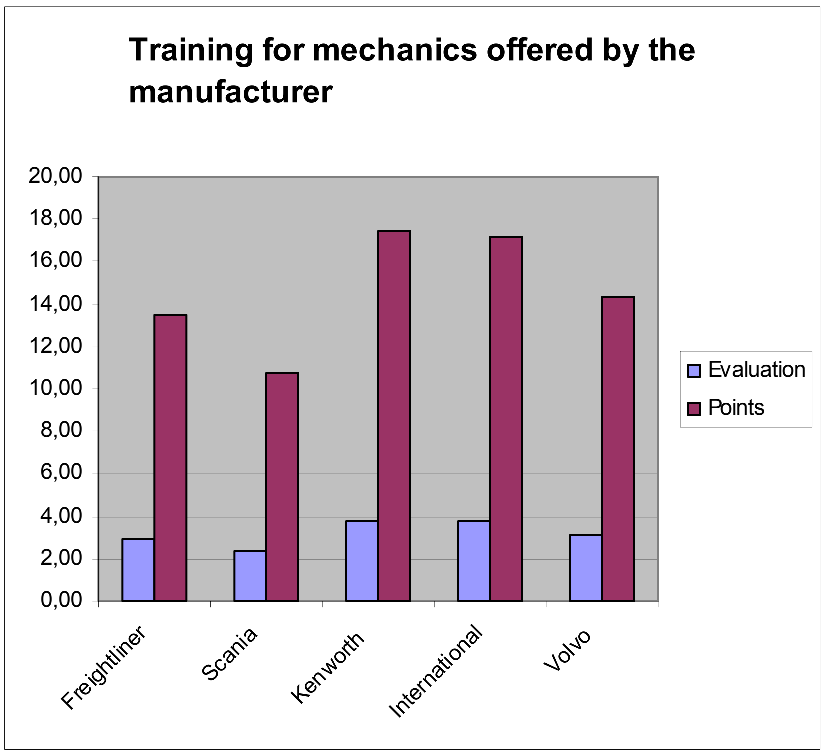
43. Training for mechanics offered by the manufacturer:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	7%	29%	29%	36%	0%			
Scania	0%	67%	33%	0%	0%			
Kenworth	5%	16%	11%	32%	37%			
International	0%	9%	36%	27%	27%			
Volvo	0%	20%	50%	30%	0%			
Freightliner	1	4	4	5	0	14	10	42%
Scania	0	2	1	0	0	3	14	82%
Kenworth	1	3	2	6	7	19	3	14%
International	0	1	4	3	3	11	8	42%
Volvo	0	2	5	3	0	10	8	44%

Training for mechanics offered by the manufacturer

Importance: 4,62

	Evaluation	Points
Freightliner	2,93	13,5
Scania	2,33	10,8
Kenworth	3,79	17,5
International	3,73	17,2
Volvo	3,10	14,3



44. Training for administrative personnel offered by the manufacturer:

	Number	Percentage
1. Not important	2	7%
2. Little important	3	11%
3. Neutral	7	26%
4. Important	11	41%
5. Very important	4	15%
Total:	27	100%
Importance:	3,44	

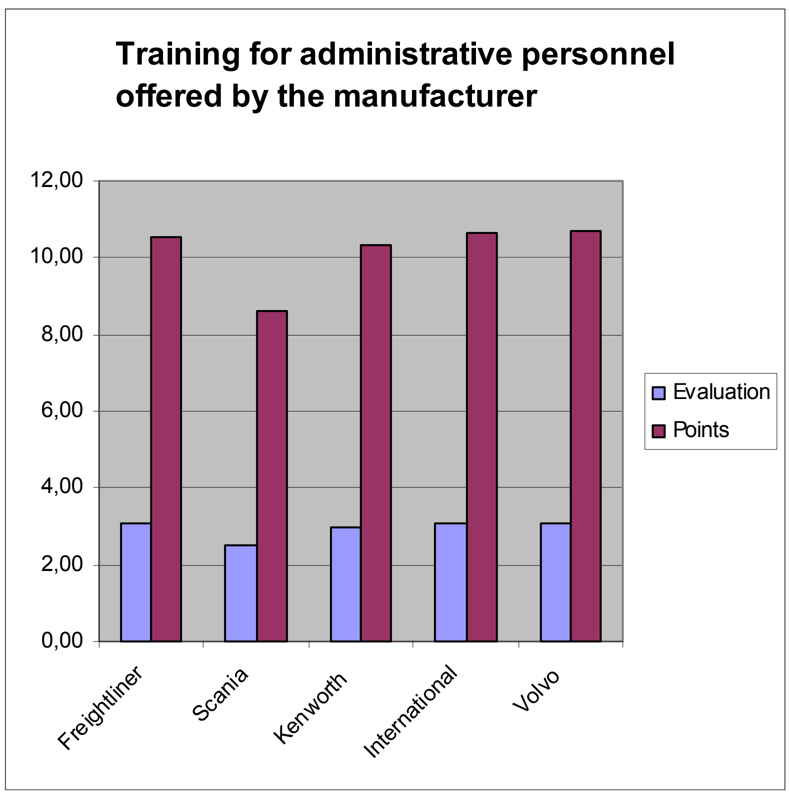
45. Training for administrative personnel offered by the manufacturer:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	6%	6%	63%	25%	0%			
Scania	25%	25%	25%	25%	0%			
Kenworth	11%	11%	53%	21%	5%			
International	8%	8%	50%	33%	0%			
Volvo	0%	20%	60%	10%	10%			
Freightliner	1	1	10	4	0	16	8	33%
Scania	1	1	1	1	0	4	13	76%
Kenworth	2	2	10	4	1	19	3	14%
International	1	1	6	4	0	12	7	37%
Volvo	0	2	6	1	1	10	9	47%

Training for administrative personnel offered by the manufacturer

Importance: 3,44

	Evaluation	Points
Freightliner	3,06	10,5
Scania	2,50	8,6
Kenworth	3,00	10,3
International	3,08	10,6
Volvo	3,10	10,7



46. The availability of spare parts:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	0	0%
4. Important	3	11%
5. Very important	24	89%
Total:	27	100%
Importance:	4,89	

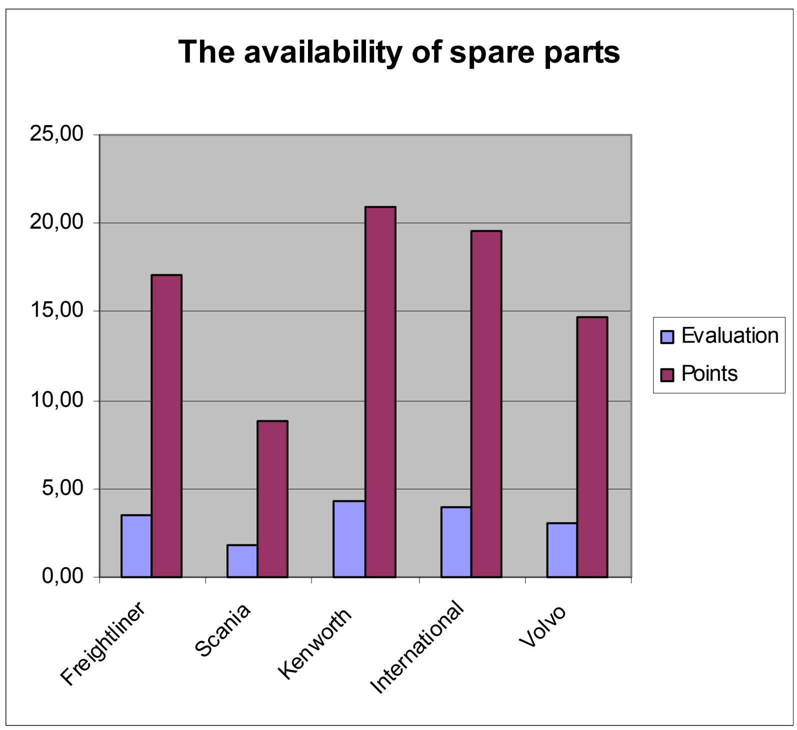
47. The availability of spare parts:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory			
Freightliner	5%	9%	27%	50%	9%			
Scania	40%	40%	20%	0%	0%			
Kenworth	5%	5%	9%	23%	59%			
International	0%	7%	21%	36%	36%	# Eval.	N/A	% N/A
Volvo	13%	20%	27%	33%	7%			
Freightliner	1	2	6	11	2	22	5	19%
Scania	2	2	1	0	0	5	12	71%
Kenworth	1	1	2	5	13	22	1	4%
International	0	1	3	5	5	14	5	26%
Volvo	2	3	4	5	1	15	4	21%

The availability of spare parts

Importance: 4,89

	Evaluation	Points
Freightliner	3,50	17,1
Scania	1,80	8,8
Kenworth	4,27	20,9
International	4,00	19,6
Volvo	3,00	14,7



48. The possibility to outsource the maintenance and repair work to mechanics from the shop of the authorized dealer:

	Number	Percentage
1. Not important	3	11%
2. Little important	0	0%
3. Neutral	6	22%
4. Important	11	41%
5. Very important	7	26%
Total:	27	100%
Importance:	3,70	

49. The rescue service / assistance on the highway:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	6	22%
4. Important	5	19%
5. Very important	16	59%
Total:	27	100%
Importance:	4,37	

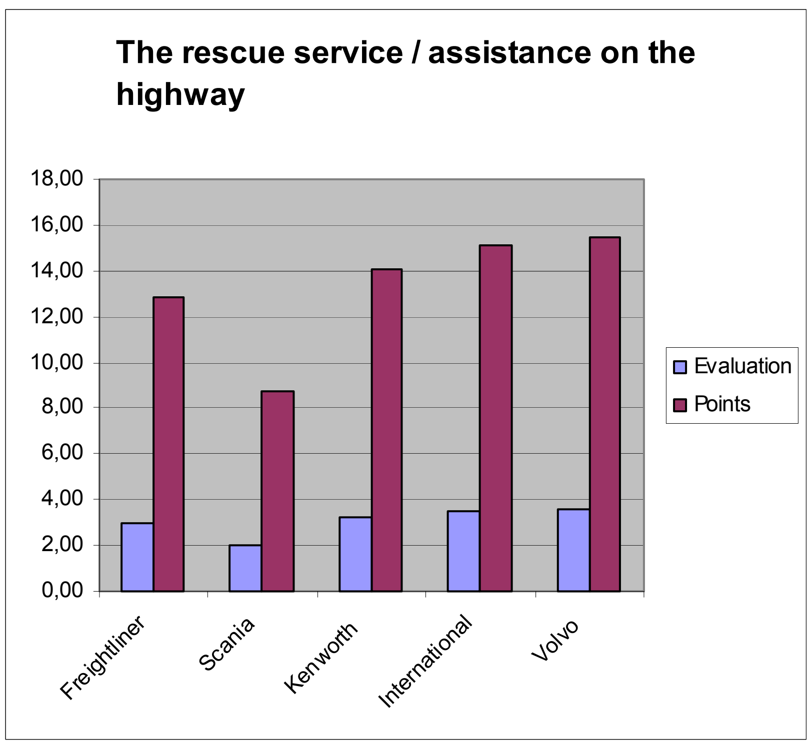
50. The rescue service / assistance on the highway:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	7%	13%	60%	20%	0%			
Scania	25%	50%	25%	0%	0%			
Kenworth	5%	21%	32%	32%	11%			
International	0%	9%	45%	36%	9%			
Volvo	0%	9%	36%	45%	9%			
Freightliner	1	2	9	3	0	15	9	38%
Scania	1	2	1	0	0	4	13	76%
Kenworth	1	4	6	6	2	19	3	14%
International	0	1	5	4	1	11	8	42%
Volvo	0	1	4	5	1	11	7	39%

The rescue service / assistance on the highway

Importance: 4,37

	Evaluation	Points
Freightliner	2,93	12,8
Scania	2,00	8,7
Kenworth	3,21	14,0
International	3,45	15,1
Volvo	3,55	15,5



51. Technical support through telephone:

	Number	Percentage
1. Not important	0	0%
2. Little important	0	0%
3. Neutral	6	22%
4. Important	10	37%
5. Very important	11	41%
Total:	27	100%
Importance:	4,19	

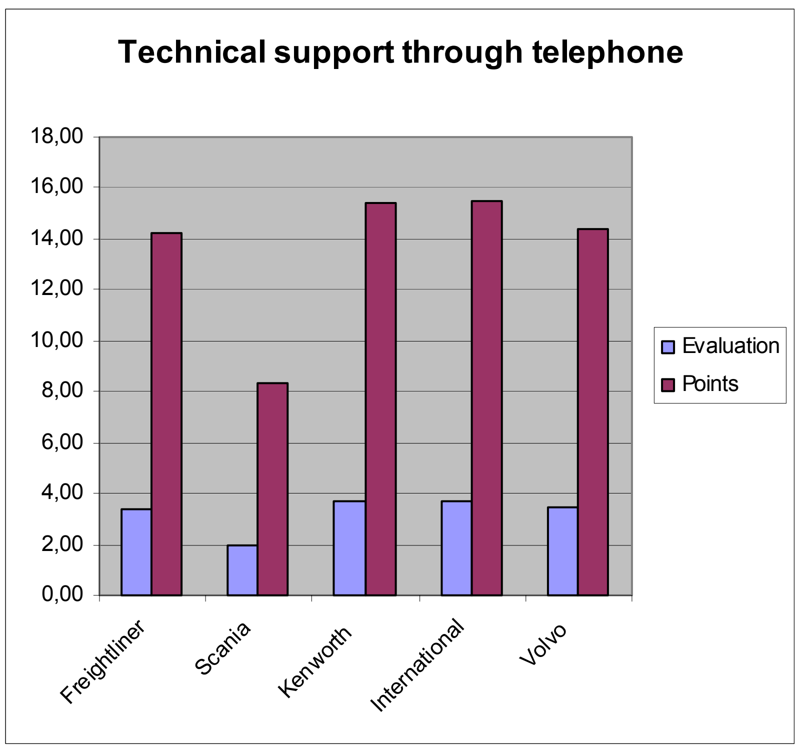
52. Technical support through telephone:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	7%	7%	33%	47%	7%			
Scania	0%	100%	0%	0%	0%			
Kenworth	5%	16%	5%	53%	21%			
International	0%	10%	30%	40%	20%			
Volvo	0%	11%	33%	56%	0%			
Freightliner	1	1	5	7	1	15	9	38%
Scania	0	3	0	0	0	3	14	82%
Kenworth	1	3	1	10	4	19	3	14%
International	0	1	3	4	2	10	9	47%
Volvo	0	1	3	5	0	9	9	50%

Technical support through telephone

Importance: 4,19

	Evaluation	Points
Freightliner	3,40	14,2
Scania	2,00	8,4
Kenworth	3,68	15,4
International	3,70	15,5
Volvo	3,44	14,4



53. Technical support through the Internet:

	Number	Percentage
1. Not important	0	0%
2. Little important	2	7%
3. Neutral	7	26%
4. Important	11	41%
5. Very important	7	26%
Total:	27	100%
Importance:	3,85	

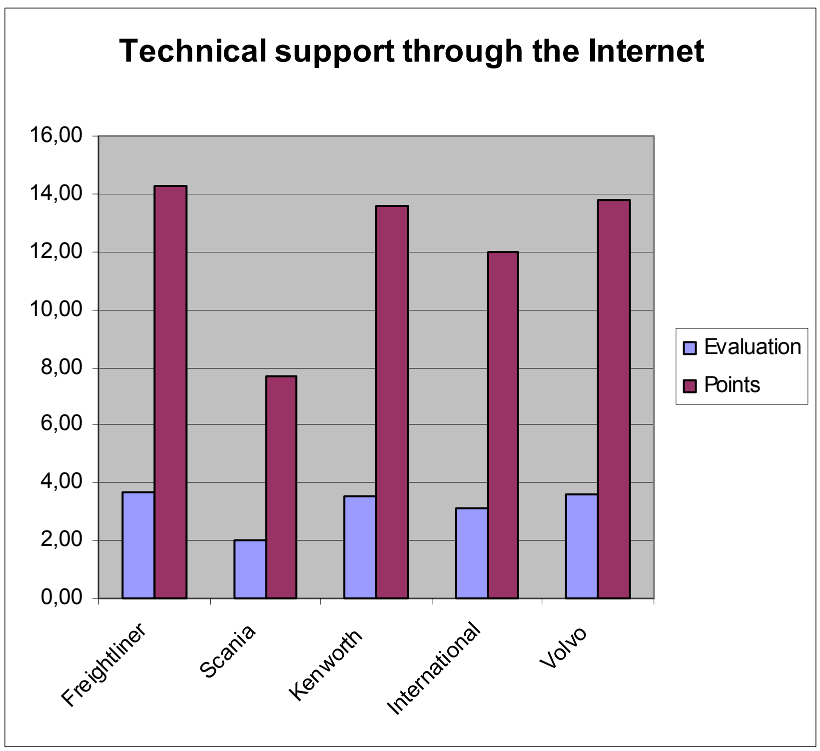
54. Technical support through the Internet:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	0%	10%	30%	40%	20%			
Scania	33%	33%	33%	0%	0%			
Kenworth	7%	13%	20%	40%	20%			
International	11%	11%	33%	44%	0%			
Volvo	0%	14%	29%	43%	14%			
Freightliner	0	1	3	4	2	10	14	58%
Scania	1	1	1	0	0	3	14	82%
Kenworth	1	2	3	6	3	15	7	32%
International	1	1	3	4	0	9	10	53%
Volvo	0	1	2	3	1	7	11	61%

Technical support through the Internet

Importance: 3,85

	Evaluation	Points
Freightliner	3,70	14,3
Scania	2,00	7,7
Kenworth	3,53	13,6
International	3,11	12,0
Volvo	3,57	13,8



55. Acquisition of spare parts through telephone, with credit card:

	Number	Percentage
1. Not important	9	35%
2. Little important	1	4%
3. Neutral	8	31%
4. Important	5	19%
5. Very important	3	12%
Total:	26	100%
Importance:	2,69	

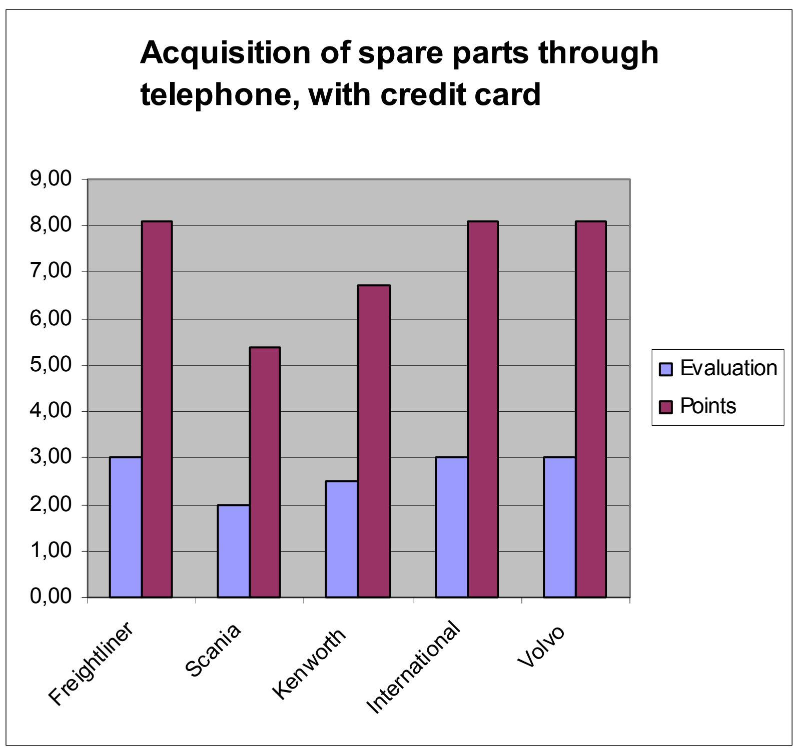
56. Acquisition of spare parts through telephone, with credit card:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	11%	0%	67%	22%	0%			
Scania	33%	33%	33%	0%	0%			
Kenworth	30%	0%	60%	10%	0%			
International	17%	0%	50%	33%	0%			
Volvo	0%	33%	33%	33%	0%			
Freightliner	1	0	6	2	0	9	15	63%
Scania	1	1	1	0	0	3	14	82%
Kenworth	3	0	6	1	0	10	11	52%
International	1	0	3	2	0	6	13	68%
Volvo	0	1	1	1	0	3	15	83%

Acquisition of spare parts through telephone, with credit card

Importance: 2,69

	Evaluation	Points
Freightliner	3,00	8,1
Scania	2,00	5,4
Kenworth	2,50	6,7
International	3,00	8,1
Volvo	3,00	8,1

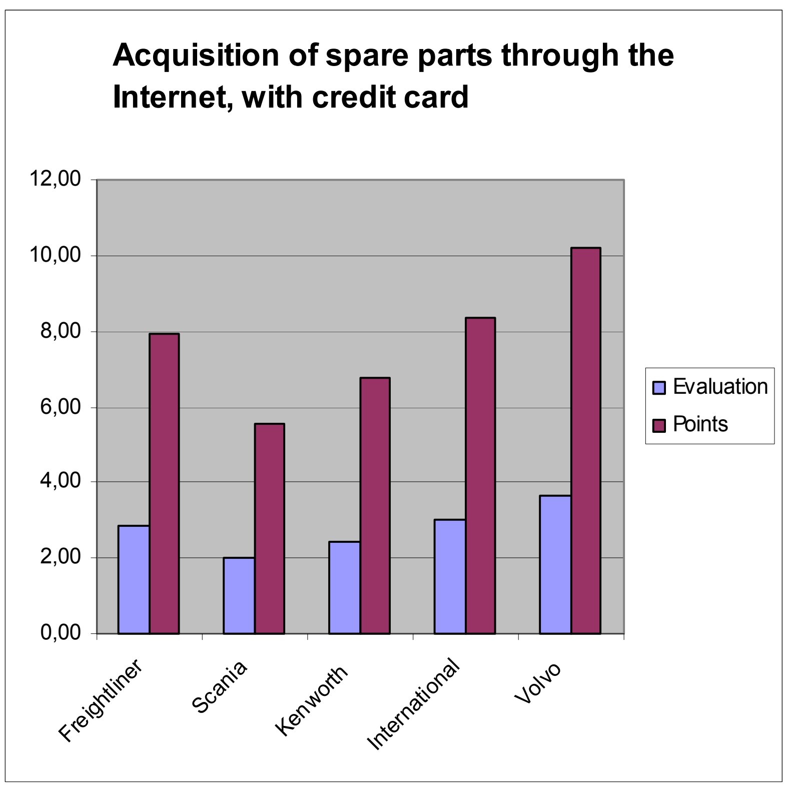


57. Acquisition of spare parts through the Internet, with credit card:

	Number	Percentage
1. Not important	9	33%
2. Little important	1	4%
3. Neutral	9	33%
4. Important	3	11%
5. Very important	5	19%
Total:	27	100%
Importance:	2,78	

58. Acquisition of spare parts through the Internet, with credit card:

	1. Very unsatisfactory	2. Unsatisfactory	3. Neutral	4. Satisfactory	5. Very satisfactory	# Eval.	N/A	% N/A
Freightliner	14%	0%	71%	14%	0%			
Scania	33%	33%	33%	0%	0%			
Kenworth	33%	0%	56%	11%	0%			
International	17%	0%	50%	33%	0%			
Volvo	0%	0%	33%	67%	0%			
Freightliner	1	0	5	1	0	7	16	70%
Scania	1	1	1	0	0	3	13	81%
Kenworth	3	0	5	1	0	9	11	55%
International	1	0	3	2	0	6	12	67%
Volvo	0	0	1	2	0	3	14	82%



Acquisition of spare parts through the Internet, with credit card

Importance: 2,78

	Evaluation	Points
Freightliner	2,86	7,9
Scania	2,00	5,6
Kenworth	2,44	6,8
International	3,00	8,3
Volvo	3,67	10,2