Service Profit Chain in the Technical Assistance Environment: an Exploratory Study

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Abstract: One of the strongest relationships among the elements of Heskett, Sasser and Schlesinger's service profit chain is verified between employee satisfaction and client's satisfaction. This paper reports the results of an exploratory study on the Brazilian operation of a world-wide leader of elevator technical assistance, in which the relationship between these two elements and their influence on the client retention rate was evaluated. The research data were treated with statistical discriminant and cluster analysis. The findings identified the relationship between employee and client satisfaction in 25 of the 27 business units studied. On the other hand, the factor that largely influences the client retention rate in this business environment is client satisfaction, while employee satisfaction is almost null. The results have important academic and managerial implications, given the limited amount of studies in this area and drive actions for the business success.

Keywords: Service Profit Chain. Quality of Service. Service Management. Technical Assistance

1. INTRODUCTION

Services are part of citizen's life all around the planet, every day. The service businesses keep on growing in the entire world. The significant sector growth and the consequent economic contributions focused attention on the subject. Competition is not, however, a particularity of service companies, neither of the service sector. All organizations compete in some degree based on services. It is almost impossible to relate, a single manufacturing industry, in which services issues are not important (Zeithaml 2003; Fitzsimmons 2005, Grönroos 1995).

The high competitiveness generated by the large amount of new products with very similar technologies and prices forced the companies to search competitive and different ways in which marketing, exclusively of transaction, started to give space to the relationship marketing. This, in turn, bases itself on the relationship created by the service delivered to customers. The majority of services are characterized by a meeting between a service provider and a customer, what is called "moment of truth" or "service encounter", and the majority of companies invest good part of their energies so that the results of these encounters are made as positive as possible. Therefore, customers will consider the possibility to return to make business with the company (Fitzsimmons 2005).

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Growth and profitability are among the main objectives of any business and, as the purpose of the relationship marketing is construction and maintenance of a base of engaged and income-producing customers, each time more efforts are channeled to the understanding of customer management as an asset for the organizations.

Investments on relationship and search of customer's satisfaction are justified by studies that indicate a strong relationship between customer retention and high satisfaction levels. The high satisfaction level alone does not allow us to keep these customers continually, neither to stimulate them to increase consumption, neither to charge higher prices nor stimulate the indications. The process of customer's retention starts at the first contact with the organization and it lasts for the whole period of relationship.

Growth and profits are not achieved only with focus on customers. It is crucial that the company also focuses employees, especially front office staff (Zeithaml 2003; Heskett et al. 2002). It is important to observe, inside the company operational strategy, elements such as effective policies of recognition and rewards, efficient structure of the workstation and adjusted tools to take care of customers' needs. These elements, consequently, provide a better environment and greater satisfaction to these employees. Internal elements (qualification, satisfaction, employees loyalty and productivity) and external (satisfaction and customers loyalty) of this chain, form the links of this model, as results from several research studies, conducted in companies of different segments by Harvard's professors Heskett, Schlesinger and Sasser. Among the service profit chain strongest relations, the authors identify: profit x customer's loyalty; employee's loyalty x customer's loyalty; and employee's satisfaction x customer's satisfaction (Heskett et al. 2002).

Studies concerning the relationship between the chain elements are recurrent in international journals and specialized magazines publications like Keiningham et al (2006), Gelade and Young (2005), Yingzi (2005), Kassinis and Soteriou (2003). The present study differs from those, both on the studied sector and the aim. This study intended to evaluate the relationship between employee's satisfaction and customer's satisfaction, verifying its impact on customer retention rate. It was conducted in the Brazilian operation of a world-wide leader in technical assistance, which operates in national scope with its twenty seven business units scattered over the country.

In Brazil, the technical assistance environment in which the studied company operates is very pulverized, inciting competition, compelling the organizations in the segment to be as well as possible synchronized with customers' demands, as well as their fulfillment. This way, many resources have been channeled to technology to build robust, financial and marketing information systems, and also, adequate politics of people management, intending not only to hold back the current customer portfolio, but also, to conquer new customers.

Studies show that, for each 5% of increase in the retention rate, profits increase about 25% to 85% (Heskett et al. 2002). Thus, in a competitive technical assistance market where the studied company operates, it is crucial to maintain the current customers´ portfolio.

According to Grönroos (2003), to conquer a new customer costs about five to six times more than maintaining an existing one. With this premise in mind, this academic study aims to develop a critical sense about the theoretical issues, as well as to evaluate one of the strongest relationships of a world-wide accepted and used service profit chain model, about which there are few studies concerning its impact over the customer's retention rate in a service company of technical assistance.

2. LITERATURE REVIEW

2.1 Services

The complexity of services starts with its conceptualization. For authors as Kotler (1998), Grönroos (1995), Horovitz (1993), manufacturing industry is, essentially, transformation of raw materials into finished products. Any other activities, as for example, the treatment of information or knowledge management are considered services.

In general, amongst the definitions found in literature, some common words can be extracted: experiences, interactions, activities, action, processes, intangibilities, performance, customer, and so on, which drive to characteristics that are part of services nature and are directly linked to the elements of service profit chain.

Many authors such as Grönroos (1995), Vavra (1993), Hoffman (2001), Gianesi and Correa (1996), differentiate goods and services and its corresponding implications. To do it, they try to describe its specific

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characteristics which are linked to the elements of the service profit chain:

- Services are intangible by nature. Technical assistance services, for example, cannot be seen or touched until they are done. The results are only known after the completion of the service. The central link of the service profit chain deals with the value of the services delivered to customers, which, in order to reach the best results, demands, according to the model, an adequate support system, that will result in satisfied, faithful, and capable employees, and increase productivity and quality.

- It is almost impossible to separate the influence of customers from that of the people that is providing service on the service results. Related to the inseparability of services, the model stresses adequate hiring system as an important factor to reach high performance service. In this occasion, with accurate criteria of selection, one can observe the interpersonal skills necessary for the future employees to attend company's needs. Accurate staff selection and training are important elements of the system which help the employees to interact correctly with customers, achieving successful results.

- The heterogeneity of services reflects the variability inherent to the process of services rendering, depending on who executes them. The service profit chain model defines that the organizations can decide on offering great value to the customers choosing methods that restrict the front line staff freedom of action, like Mc Donald's standardization of the front line workers, in order to reduce the variability.

- The impossibility of being stored and sold in a posterior date turns this perishable characteristic an important one for the operational strategy and the system of services operations. Structure of the workstation and hiring and development, reward and recognition systems are among the basic points of the service profit chain model so that it can deliver valuable services.

As Grönroos (1995) and Lovelock (2001) put it, services can be classified in several types. The importance of the classification is justified, for each type of service deserves a different strategy, with specific approaches on how to manage its operations. Traditionally services are grouped by activity sector: health, tourism, transports, finance, consulting, technical assistance, and so on. These business-oriented segments had been object of studies by Heskett and

others, in organizations such as Nordstrom, American Express, The Ritz-Carlton, which have proved the existence of the service profit chain in place.

These organizations, with their investments focused to improve actions devised to conquer the loyalty and to extend the sphere of customers, try to search new relationships with their partners and to extend them to clients, transforming relationship into one of its most valuable goods and, consequently, giving an impulse to the development of an area inside marketing, known as relationship marketing.

2.2. Relationship Marketing

In the industry, the concept of partnerships through long term contacts has been used for decades, although the terminology of relationship marketing in the services sector only appeared with Leonard Berry in 1983. For this author, relationship marketing is like the attraction, the maintenance and - in multi-services organizations - the differentiation of relationships with customers (Berry 1983). It is the kind of action that integrates the customer to the company in order to create and keep a long term relationship that leads to faithful customers.

Some authors define relationship marketing only as long term relations between purchaser and salesman (Vavra 1993, Berry 2001, Levitt 1985). Different authors, as McKenna (1998) and Kotler (1998), in an ampler context, state that the company forms the relationship marketing and that all the interested actors who support it and are part of its vital chain are the consumers, suppliers, carriers, retailers and other people that build mutual income-producing commercial relationships. For Kotler and Armstrong (2003), relationship marketing creates, keeps and intensifies solid relationships with the customers and other publics. According to McDonald (2001), quality, attendance to the customer and marketing are highly related issues, but often separately managed. What makes these elements more integrated is a focus on the relationship marketing strategy.

Relationship marketing uses a wide range of marketing approaches, sales, communication, service and, by identifying the individual customers of a company, intends to create a lasting and advantageous relationship between the company and its customers, and keeps managing this relationship, benefiting customers and the company itself (Stone 2001). Relationship marketing deals with a set of actions that the company and the employees carry

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through, guided by a fidelity program, with the objective to conquer and keep the consumer affection and confidence, receiving, in exchange, for a period of the longest possible time, the customer preference (McKenna 1998). According to this author, marketing has today the mission to involve the customer in the elaboration of the product and to develop a systematic process of interaction, bringing firmness and longevity to the relation.

Marketing relationship experts had identified some factors that contribute to the growth of importance and development of this new marketing orientation, such as: the increase and global nature of competition, more demanding and sophisticated consumers, intense fragmentation of the consumer market, speed in the changes of consumer standards, constant growth of the requirement quality levels, inadequacies of the concept that the quality by itself creates sustainable competitive advantage, influence of the technology in the products and services and the decline of the global advertising effectiveness (Bowman; Narayandas, 2004).

With the markets and consumers natural evolution, related to their critical sense and more protected by the specific legislation that regulates the relationships between supplier and customer, organizations have acquired the knowledge that service and product quality is a basic competition requisite. The quality of the relationship lights up as a differentiation factor and the most appropriate measure of the organization success (Peppers; Rogers 1997).

Marketing relationship has customer as its main area of interest, because it recognizes in it the strength to hold back the customers. This intention to hold back the customers is what differentiates it from the traditional marketing, which tends to direct its action toward the conquest of new customers.

An organization of the service sector that adopts relationship marketing is oriented to long term results. Grönroos (1995) affirms that, even if winning new customers is important, the main strategic interest of relationship marketing is to concentrate in the existing customers, focusing the maintenance and improvement of these relationships.

2.3. The Service-Profit Chain

The observations and a set of relations established by James Heskett in the middle eighties resulted on what was known as services strategic vision. This was the embryo of what later would be called "Ser-

vice Profit Chain", developed together with contributions of Earl Sasser in his profitability and fidelity studies, and Leonard Schlesinger in his experiments at the coffee-bakery French chain Au Bon Pain (Heskett et al., 2002). The paper "Putting the Service Profit Chain to work" was published for the first time in 1994 in the Harvard Business Review. The authors suggested that, as much as the customers, front line employees would have to be placed in the center of the attentions of the company, if this company desired to succeed in a service economy. The model states that satisfied employees tend to deliver services with higher added value to customers; this, in turn, tends to make them satisfied and faithful, keeping them in the company, impacting positively in company's growth, and increasing its profitability. This model became, since then, part of the strategic orientations of many corporations around the world, gaining prominence and importance in Brazil, among other reasons, for having strong indications that it is much more advantageous to keep the current customers instead of attracting new ones.

The maintenance, or retention of customers, can be defined as the commitment of the consumer to make business with the same company on a regular basis. This brings a series of benefits, such as the satisfaction and retention of the employees, better services, lower costs, word of mouth advertising (Maritz; Nieman, 2008). Faithful customers are much more inclined to buy through different channels as telephones and websites, and to consume more. In turn, the employee's fidelity increases productivity, which adds value to the delivered service, impacting on growth and company's profits.

Some basic considerations from the elements of the chain relationships (Heskett et al., 2002) are the following:

- customer´s loyalty increases growth and profit. A 5% increase in the customer fidelity can increment profits in about 25% to 85%.

- customer´s satisfaction induces fidelity. Xerox discovered that their very satisfied customers had six times more intention to repurchase company's goods than merely satisfied ones.

- aggregate value to services induces customers' satisfaction. The effort of an insurance company to deliver the maximum value includes training a team to supply special services in catastrophes. The company has one of the highest margins in industry.

- employees´ productivity aggregates value to the services. Southwest Airlines has the fastest land service of the industry. The pilots fly 20 hours per month less than the competition. The tariffs remain low while the value of the services keeps high.

- employee´s fidelity induces productivity. The cost of substitution of a salesman of automobiles who on average has eight years of experience for another with less of one year represents $ 432,000 in sales lost.

- employee satisfaction leads to fidelity. A recent study in a company showed that 30% of all the unsatisfied employees had expressed their intention to leave, in comparison with 10% of all the satisfied employees. Moreover, low turnover has direct relation with customer satisfaction.

- adequate support system leads to customer satisfaction. Services employees are happier when they have "room" to carry through their customer's needs and when they have authority to take action.

3. METHODOLOGY

The data used for the accomplishment of the present study are secondary, since they had been collected in a research carried out by the company in 2007, with its customers and employees. That research is part of the company's strategic plan and aims to recognize opportunities of process and relationship improvement. The research procedures are as follows.

For the **customers´** satisfaction´s research, the company sent, by direct mail, with prepaid freight for posterior devolution, a total of 9.010 questionnaires, which corresponded to 50% of the customers of each one of its 27 business units in Brazil. This amount is established by the world-wide procedure of the company, which annually surveys half of its customers and, in the subsequent year, the other half. A sum of 1.045 questionnaires were received and validated, corresponding to 11.60% of the total sent, what may be considered, for the standards of the conducted type of research, an outstanding return rate. The questionnaires addressed issues as quality of service, preventive and corrective maintenance, company´s equipment, responses to suggestions and complaints to be scored in a 1 (completely unsatisfied) to 5 (completely satisfied) satisfaction scale. The average of notes was calculated, $\overline{x_j}$, for each one of the respondent customers, and the final

note, $\overline{X_i}$, for each one of the 27 units of business i was obtained by the following formula:

$$\overline{X_i} = \frac{\sum_{j=1}^{N_i} \overline{x_j}}{N_i},$$

where N_i is the number of customers of the business unit i. This average of the average notes for the customers belonging to the same business unit was identified as the note for the satisfaction of the customers in the respective branch offices and was limited to the interval [1; 6].

For the **employees´** satisfaction research, the company sent by internal mail, addressing 100% of the employees, a total of 1.287 envelopes containing the questionnaires, for each one of the 27 business units. On a pre-scheduled day, the answered envelopes were stamped and deposited in a sealed up ballot box, with access allowed only to the company contracted and responsible for the research process, guaranteeing entire confidentiality to the employees. 1.081 envelopes had been returned, corresponding to 84% of the applied questionnaires. The questionnaires addressed issues such as communications, quality, ethics, teamwork, benefits, management practices, clients, competitive strategy and used a scale of 5 (five) points, starting from very unsatisfied to very satisfied, passing through a neutrality point. The average note for each one of the participant employees, in each one of the business units, was the criterion of classification for elaboration of a relative frequency distribution in the five classes of satisfaction. The level of the employees satisfaction of one given business unit was identified as the sum of the relative frequencies of the classes "satisfied" and "very satisfied" and was limited to the interval [0%; 100%].

The questionnaires applied to the customers and employees had been analyzed to verify their adherence to the model of the service profit chain. The elements of the chain had been listed and each question of the questionnaire was referenced with the respective strategic orientation established by the model. All the elements of the chain were linked and the results demonstrated that all the questions had strong relation with the model, which allowed us to use the results of the research for the purpose considered in our study.

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In addition to the two variables obtained directly from the research, a new variable was created to measure the customer retention rate, in order to obtain necessary quantitative information for the evaluation of the service profit chain model. This variable is the result of the subtraction

100% - cancellation rate

where the cancellation rate, obtained from the annual report, is equal to the total of the units cancelled during the year divided by the total number of the portfolio units in the beginning of the period for each one of the 27 business units.

Once we got these three variables, the software SPSS 12.0 was used to process the clusters and the discriminant analysis. The cluster analysis intended to group the 27 units according to its responses to the variables: level of customer satisfaction, employees´ satisfaction and the retention rate. Despite the variability (measured by the standard deviation), none of the 27 units could be identified as an outlier. A hierarchic method was used to find four clusters, which presented easier interpretation and allowed a larger progress related to the categorization and the separation. Moreover, two new variables had been created: "Cluster", indicating the final cluster where the observation was found and another one, called "Retention", indicating whether there occurred, or not, retention of the customer. To the observations with positive score-Z in the variable "retention rate", was attributed "yes" for the retention, whereas for the observations with negative score-Z, was attributed "not".

The "Cluster" variable, when identifying the business units that belongs to each one of the four clusters, allowed to know in which of these units the relation in test was not validated. For each one of them, the procedure was to contact the manager of the business unit for an interview on the possible causes of no relation matching.

For the discriminant analysis, the "Retention" variable was the discriminated variable. The discriminant functions for the prediction, control and prevention of the retention of customers were based on the values obtained for the standardized levels of satisfaction of the customers and employees. With the discriminant analysis, we could identify which variables had more impact in retention rate so it permitted to improve the interpretation of the cluster analysis results.

4. RESULTS

Discriminant analyses

Identified the business units where there was and those where there was no retention - YES and NOT to the variable "Retention", respectively, we calculated the linear discriminants functions of Fisher, used to predict the classification of this variable on the basis of the values collected for the standardized variable "customers satisfaction" and "employees satisfaction". The tests Box's M (0,764) and Lambda of Wilks (0,905), significant for a 5% alpha, had disclosed that the obtained functions significantly discriminate the average of the groupings of the variable "Retention". For the same significant level, no multicolinearity was found between the discriminant variables. The most relevant results are presented in table form as follows:

In table 1, it is understood that the discriminant function suffers a larger influence from the perspective of the customers´ satisfaction level, confirmed by the coefficients of the Fisher discriminant functions in table 2. The employees´ satisfaction on its turn has almost null influence for the discrimination. That is, it tends to present much less impact in the retention rate than customers satisfaction. This situation was perceived in the analysis of clusters, more specifically in clusters 2 and 3, that is presented ahead.

Table 1 - Standardized coefficients of the discriminant function

VARIABLE	RETENTION
Customers satisfaction	0,984
Employees satisfaction	-0,143

Table 2 - Coefficients of Fisher's discriminant linear functions.

VARIABLE	RETENTION	
	NOT	YES
Customers satisfaction	-0,329	0,305
Employees satisfaction	0,046	-0,042
(Constant)	-0,746	-0,738

The values in table 3 show that 70.4% of the original grouping was correctly classified.

Table 3 - Frequency of rightness in predictions - 70.4% of the original grouping correctly classified

			MEMBERS OF THE PREDICTED GROUP		TOTAL
		RETENTION	NOT	YES	
ORIGINAL	COUNTING	NOT	10	3	13
		YES	5	9	14
	%	NOT	76,9	23,1	100,0
		YES	35,7	64,3	100,0

This result motivated the cluster analysis, presented as follows.

4.2 Cluster analyses

The scheme of agglomeration and the dendogram, supplied as output of the program SPSS, allied to the concern with the easiness of interpretation, disclosed the ideal number of four clusters for the initial collection of business units. Table 4 presents the frequencies for each one of these clusters:
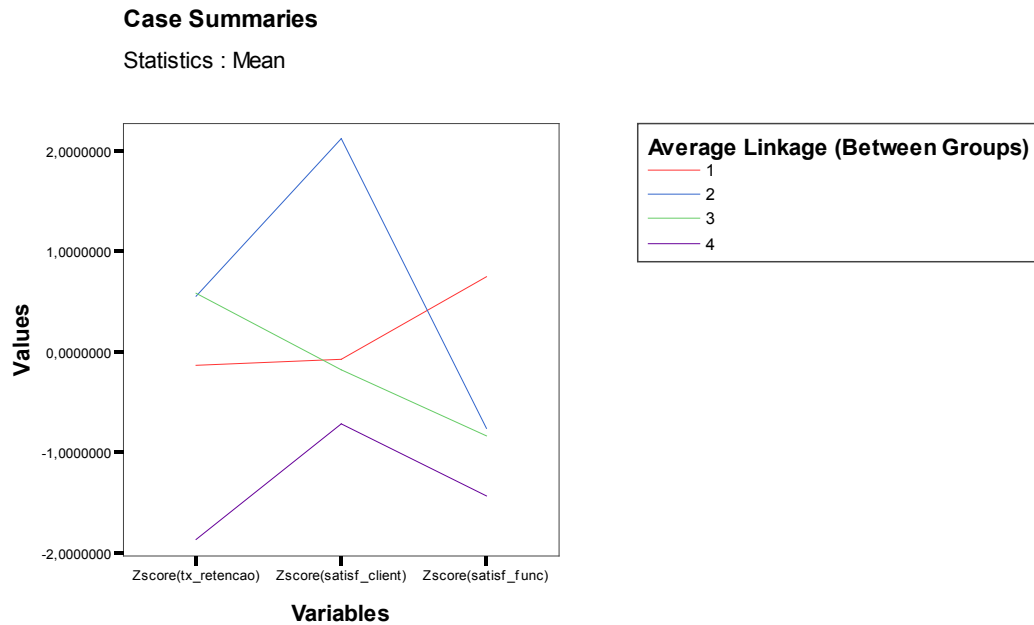
Table 4 – Clusters absolute and relative frequencies

Clusters	Frequency	Percentage	Cumulative percentage
1	15	55,6	55,6
2	2	7,4	63,0
3	8	29,6	92,6
4	2	7,4	100,0
Total	27	100,0	

Table 5 presents the averages for the standardized variable for Score- Z. Its graphical representation is shown in the Graph 1.

Table 5 – Clusters average of score-Z in each issue studied

Clusters	Score- Z		
	Retention rate	Customers Satisfaction	Employees Satisfaction
1	-0,1316714	-0,0840408	0,7428208
2	0,5466363	2,1060384	-0,7675815
3	0,5765780	-0,1884647	-0,8418635
4	-1,8654130	-0,7218732	-1,4361201
Total	0,0000000	0,0000000	0,0000000

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Case Summaries

Statistics : Mean

Graph 1: Clusters average score-Z in each studied issue

For better interpretation of the clusters, we established in table 6 categories of intensity varying from "very low" to "very high", which refer to the standardized values of the variables in study, as follows:

Table 6 - Definition of the categories for clusters Scores Z average

Categories	Score- Z
Very high	More than 1,25
High	from 0,70 to 1,25
High average	from 0,15 to 0,70
Average	from -0,15 to 0,15
Low average	from -0,70 to -0,15
Low	from -1,25 to -0,70
Very low	Less than -1,25

in which we placed each variable of each cluster, obtaining the classification presented in table 7:

Table 7 – Variable classification

Clusters	Retention rate	Customers satisfaction	Employees satisfaction
1	Average	Average	High
2	High average	Very high	Low
3	High average	Low average	Low
4	Very low	Low	Very low

This strategy allowed us to interpret and analise the following:

In table 4 the frequency of the number of business units by clusters is observed, that shows, for the cluster 1, a group of fifteen business units presenting, according to the categorization of the values demonstrated in table 7, an average classification for retention rate, an average degree for customers´ satisfaction and high results for employees satisfaction, while the cluster 4, grouping two business units, presents an opposite result, nevertheless consistent with the model, presenting very low retention rate, low customers satisfaction and very low employees satisfaction. Both clusters, 1 and 4, representing 63% of the analyzed business units, confirm the model regarding the validity of the relation proposed by the study between employees satisfaction and customers satisfaction impacting in the retention rate that, according to Heskett et al. (2002), is about one of the strongest relations of the service profit chain model.

Regarding the cluster 4, this analysis made possible the identification of the business units with minor degree of positive results, resulting in immediate action of the company's regional management that sent a task force to the respective localities.

In the same line of research, the studies of Yingzi et al. (2005) in the Chinese insurance sector and Lau (2000), that explored the relationship between profitability and quality of life at work with data of 28 American service companies, confirm the results obtained in the present study referring to clusters 1 and 4, that, even having focused on profitability and not on the retention rate, confirmed the existence of the relation between customers and employees´ satisfaction.

On the other hand, Keiningham et al. (2006) explored the relationship between employees´ satisfaction and profitability in studies on a major European supermarket chain and had found results that differ significantly of the exploratory studies lead by Heskett et al. (2002), finding no relationship between satisfaction of employees and the profitability of the company.

Diverging of the results of the present study, regarding the clusters 1 and 4, which confirmed the relationship between customers´ satisfaction and employees´ satisfaction, Silvestro et al. (2000) had not confirmed this relationship in a simultaneous exploratory study of the relations between all service profit chain elements, inside a major supermarket chain in England. In fact, they found significant negative correlations.

Gelade and Young (2005), in a similar study in the banking retail sector in England, found a small relation, not very significant, between customers´ satisfaction and employees´ satisfaction with impact in businesses performance.

Cluster 2, representing 7.4% of the researched units, presents a situation in which a very high customers´ satisfaction indicates a relation with the retention rate, that presents "average high". This allows us to confirm the partial validity of the model since very satisfied customers tend to remain carrying through businesses with the same company (Heskett et al., 2002; Reichheld, 1996). That does not confirm, however, the relationship between employees´ satisfaction and customers´ satisfaction.

The no confirmation of the relationship between customers´ satisfaction and employees´ satisfaction in cluster 2 was portrayed in the study carried by Silvestro et al. (2000), in which they had not found any relationship between employees´ and customers´ satisfaction. In fact, the correlation was negative, also placing in question a central premise of the chain: the "satisfaction mirror", that, in a few words, confirms the intense closeness of measures regarding clients satisfaction and employees satisfaction, so intense that Heskett et al. (2002, p.112), in a study of major services organizations between 1990 and 1995, state that "in the lack of referring data for customers satisfaction or the employees, one can be projected in function of the other". In the present study, this premise in service profit chain does not seem to exist for cluster 2.

To explain the situation found on cluster 2, an interview was conducted with the managers of the two business units, and they indicated, as a main factor, the structural and process changes occurred in the organization during the year 2007. These changes had modified hierarchic levels, operational processes, including people reduction, generating anxiety and disappointment. This reflected in the research. Also contributed to it the fact that these two businesses units were the ones that had the largest number of old employees in the company, as a whole.

Still in cluster 2, the managers explained the fact for which the dissatisfaction of the employees had not motivated change in the customers satisfaction levels, raising the question that it seems to be more

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important for the customers, the price paid for the contract and the promptness with which the technicians arrive at the site and solve the problem, aspects of the service that not necessarily demand a face to face contact with the customer.

Cluster 3, that groups eight business units, representing 29,6% of the total analyzed, in the same line of interpretation, partially confirms the model as for the employees satisfaction and customers satisfaction relationship. For these elements, the existing direct relations are low and very low respectively (Heskett et al. 2002). These results were not verified for the retention rate, which did not suffer impact of the result from this relation, keeping on a high average.

Cluster 3 also presents a similar situation as cluster 2 regarding the dissatisfaction of employees (low) and the retention rate (average high). This result confirms the discriminant analysis where the function "retention" does not suffer influence from the employees´ satisfaction. The perspective of the customers´ satisfaction level is the variable that has more influence on the retention rate.

The difference between these two clusters is on the customers´ satisfaction rate, which in cluster 3 presents low average, whereas, in the cluster 2, a very high one. It is important to observe, as shown in graph 1, that cluster 3 presents a fall in the customers´ satisfaction rate which did not influence the retention rate, as Reichheld (1996), Zeithaml (2003) and McKenna (1992) point out: an unsatisfied customer tends to look for new sources of supply. We can say for this situation that the absence of action to discover the root cause of the problem could develop a process of contract cancellations, coming from the dissatisfaction of the customers, which would harm the level of retention rate, the profitability and the growth of these business units.

To explain the situation of cluster 3, the eight managers of the respective business units were interviewed and the main reason mentioned was the reorganization of the units, resulting in low employees´ satisfaction rate. For the two business units of cluster 2, and the eight business units of cluster 3, the board of the company decided to send a human resources representative to apply an intermediate research with all the employees in order to verify other possible causes of this dissatisfaction, not identified in the previous research. This new research will observe the attitudes of the employees regarding the

relations of ones to the others, the notion of identification of its internal customers, the level of service that they are delivering and possible suggestions of corrective actions. With the results, the direction should lead actions to revert this variable in these business units, as stated by the service-profit chain model regarding the existence of a direct relationship between the employees´ satisfaction and the customers´ satisfaction which impact the growth and profitability (Heskett et al., 2002).

5. CONCLUSION

From the data analysis, it can be stated that the research general objective was reached, once the study indicated the existence of a relationship between customers´ satisfaction and employees´ satisfaction with impact in the retention rate, in services of technical assistance environment.

Relationship between employees' satisfaction and customers' satisfaction was found in clusters 1,3 and 4, equivalent to 25 of the 27 researched business units.

This study made possible to identify the degree of alignment of the business units to the service-profit chain model, once the main objective of the method of cluster analysis is to classify business units in relatively homogeneous groups based on the set of variables (satisfaction of customers, employees and customers retention rate). Thus, the business units of a determined group are relatively similar between themselves, in terms of these variables and different of the business units of other groups.

In 63% of the business units studied, results indicated the existence of a relationship between employees' satisfaction and customers' satisfaction with impact in the customers´ retention rate, as proposed by the service-profit chain model.

In the ten remaining business units, which totalized 37% of the sample, results indicated partial relation in two situations. In one of them, results showed a relationship between customers´ satisfaction and the retention rate, and, in the other, results indicated a relationship between employees´ satisfaction and customers´ satisfaction, but without impact on customer's retention rate.

These results allowed the company's board of directors to define actions aiming the maintenance of existing customers, as well as contributed for the peo-

ple management department to perform an intermediate research with business units which showed the identified minor degree of alignment to the model, in order to deepen the reasons of unsatisfactory findings as the ones found at cluster 4, without its very low retention rate and very low employees´ dissatisfaction. Elements like the attitudes of the employees regarding the relations of ones to the others, or the notion of identification of its internal customers, would be explored. One big action already taken by the board was a health care plan change in some localities which was one of the reasons of the employees´ dissatisfaction.

The analysis made through the discriminant function identified the customers' satisfaction rate having more influence on customers´ retention rate. The element employees' satisfaction, on its turn, had almost null influence. This information is important to drive the priority of the actions to be taken in the company, with intensified focus on customers´ satisfaction. One action already taken was to launch a campaign to reward the business units that had a bigger retention rate. And also, to incentive all the business units employees, specially the front line workers, to gain more clients and to keep them satisfied.

On the other hand, the aspects of the research that had produced results with high levels of employees´ satisfaction, found in fifteen business units, equivalent to 56% of the total researched, will be carefully cultivated by the company direction. They will also be spread to the business units that had not presented good results in the employees´ satisfaction rate. One of the actions already taken was to gather all the managers on a national convention where the business unit managers with best results presented their best practices which resulted in a procedure guideline that will be put immediately in action.

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