

AN EVALUATION OF THE QUALITY OF SERVICES PROVIDED IN LEADER TRAINING CENTERS USING THE SERVQUAL SCALE AND THE 5 GAPS MODEL

N. Stefano (1); R. Guidek (2); A. Pellegrin Ansuaj (1); L. Pentiado Godoy (1)

(1) Universidade Federal de Santa Maria - Programa de Pós-Graduação em Engenharia de Produção - Avenida Roraima, Nº 1000 Cidade Universitária - Bairro Camobi- Santa Maria – RS 97105-900

(2) Universidad Nacional de Misiones - Facultad de Ciencias Económicas - Campus UNaM - Ruta Nac. Nº12 - Km. 7,5 Miguel Lanús – Misiones - Argentina C.P.3304

E-mail: stefano.nara@gmail.com

E-mail: guidek@fce.unam.edu.ar

E-mail: angelaansuj@yahoo.com.br

E-mail: leoni@smail.ufsm.br

ABSTRACT

The present work has as objective to evaluate the quality of the services provided, in two leader training centers (LTCs) in Santa María city - RS-Brazil, centering the research in the identification of the attributes and in the dimensions of the quality to evaluate if they overcome or they do not overcome the expectations of the clients and likewise the management of said centers. For the gathering of the data an adapted questionnaire of the SERVQUAL model was elaborated, using five dimensions of the quality in services. The research was developed through the multi case methodological approach. The data were processed with the software Statistica 7.0. Excel and Sphinx Lexica. The conclusions show that in general these enterprises present satisfactory results in relationship to the clients' and enterprise managers' satisfaction, but quality should not be confused with the satisfaction as some aspects were classified with unacceptable quality.

KEY WORDS: expectation, perception, services quality

1. INTRODUCTION

For the services providing organizations what is fundamental is the interpretation of the clients' necessities and the evaluation of the satisfactory action of the provided services, which reinforces the competitiveness and establishes a relationship with the client. In the provision of services, the great opportunities for the obtaining of long term competitive advantages are centered in the operations of services, being that, these advantages can be related to the quality of the provided service and to their provision process (KARA et al., 2005). To be competitive means to be able to minimize the threats of new enterprises, to conquer the rivalry imposed by competitors, to win and to maintain market sections, to reduce suppliers and consumers negotiation power.

At present, the consumer services look for lower prices, personalized services and with quality. In the future, those demands will tend to be greater and more specific, due to the demands of the globalized world, where competition becomes stronger and stronger, and at the same time real and virtual, demanding the creation of services that fidelize potential clients (STEFAN EL et al., 2007).

Thus, this research has as objective to evaluate the quality of the provided services, in two Leader Training Centers in Santa María city - RS, and how to identify which of the attributes of the dimensions of quality, overcome or not the clients and managers' expectations of said enterprises. Also, this work presents concepts and techniques related to the service quality that can be adapted in any organization rendering a service.

2. Bibliographical revision

2.1 Quality Perceived in Services

In product services Quality it should be something perceived by the clients, and what counts is the way how it is perceived. In reality clients perceive quality as a much wider concept than that of the technical concepts, mainly in the context of services (CAVANA; CORBETT & LO, 2007).

The product of a service operation can be presented, possessed or bought in the same way as goods, original of its own specificities. So that the operations of services produce quality activities, it is necessary firstly to understand how the client perceives the quality in function of their specific characteristics. The specificities of services, particularly the absence of tangible approaches and the difficulty of understanding the client's approaches, cause the evaluation of the quality of services more delicate than that of manufactured goods.

Long & McMellon (2004) say that the perceived quality is the result of the comparison between the experienced quality and that one expected by the client. Paulins (2005) says that the perception of the satisfaction of the clients with the quality of the received services is directly proportional with the possibility of the flaw of their expectations. Being, therefore the client's evaluation a function of their expectations and of their perception of service (Equation 1):

Evaluation of the Service Quality = f (Expectation, Perception)

According to Tesboul (1999) it is possible to express the client's satisfaction through the relationship (Equation 2):

Client Satisfaction = Perceived Quality / Expected Quality; Thus:

Perceptions > Expectation - Ideal Quality

Expectations = Perceptions - Satisfactory Quality

Perceptions < Expectations - Unacceptable Quality

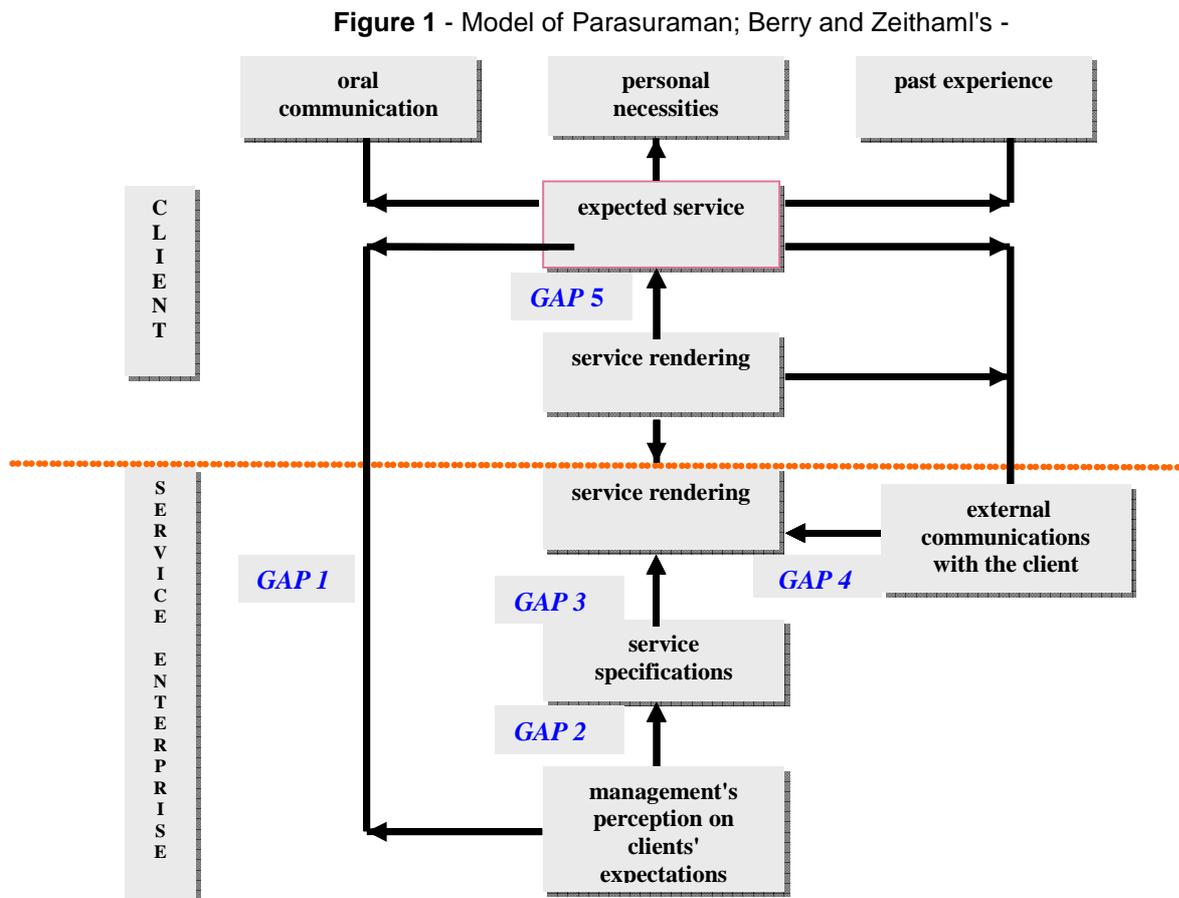
Parasuraman et al, (1988) establishes that, the concepts of satisfaction and perceived quality are different. The perceived quality is a global evaluation of the service related to the superiority of the service, as for satisfaction it is related to a specific transaction, this is, the quality at a certain moment or stage of the service.

The image of the organization works as a filter for the perception of the quality for the client, reducing the impact of factors that can influence it negatively. Grönros (2004) mentions that expected quality (expectation) is influenced by some of the interaction factors with the market: Oral Communication; previous Experience; external Communications; and personal Necessities. Therefore in services, the evaluation of the quality arises during the process of rendering the service. Each contact with the client is referred as a moment of the truth, an opportunity to satisfy

the client or not. (PARASURAMAN et al., 1985; PARASURAMAN, 2004).

2.2 Services Quality Measurement - in the SERVQUAL scale

In the field of services quality evaluation, Parasuraman, Berry & Zeithaml's works are quite well-known. In 1985, these authors published a conceptual model of quality based on five Gaps which was broadly made known. The model of quality in services is represented in Figure 1. By what is seen in Figure 1, it is observed that in the enterprise rendering services five Gaps exists. These Gaps are explored by Parasuraman et al. (1985): GAP 1 = discrepancy between the consumer's expectations and the perception of the management; GAP 2 = discrepancy between the perception of the management and the quality specifications of the service; GAP 3 = discrepancy between quality specification of the services really offered; GAP 4 = discrepancy between offered services and the external communication with the user; and GAP 5 = discrepancy between the perceived service and the expected service.



Source: Parasuraman; Berry & Zeithaml's quality of services (1985, p.44).

Gap 5, it is located in the superior part of figure 1, as it is the final evaluation of the service made by the client. Therefore, all the other Gaps are linked to Gap 5 or fifth breach, which was established as a function of the four previous breaches, that is, $GAP\ 5 = f(GAP\ 1, GAP\ 2, GAP\ 3, GAP\ 4)$.

2.3 SERVQUAL Scale

Some years later the authors (Parasuraman et al, 1988) proposed an instrument to measure the quality of the services - the SERVQUAL Scale -based on five main dimensions, according to the authors, the clients use to judge the quality of a service: dependability, tangible aspects, sensibility, security and empathy.

For each type of service there could exist a specific group of quality determinants. Several authors have been trying to define a generic group of determinants that are applicable for any species of service. The group of determinants defined for the quality in service used in this research had as its base the authors (PARASURAMAN et al, 1985, 1988; JOHNSTON, 1995, 2005; GHOBADIAN et al, 1994; GIANESI & CORRÊA, 2006): 1 - Dependability: capacity to render the promised service accurately and consistency; 2 - Speed: speed to attend and readiness to assist the clients; 3 - Tangible: physical evidence of the services, such as physical facilities, officials' appearance and equipment used in the process. 4 - Empathy: to demonstrate interests, cordiality and pay attention to the client. 5 - Flexibility: capacity to change and to adapt the service to adjust itself to the necessities of the clients; 6 - Access: easiness to get in contact or to accede physically to the service; and 7 - Readiness: easiness in finding personal readiness of attention, and facilitating goods and facilities. The SERVQUAL scale is used for the evaluation of the items of expectations and perceptions, using the Likert scale of 5 or 7 points ("total disagreement" to "total agreement"). To validate this tool Parasuraman et al (1988), apply in four fields of different services: banks, credit cards, repair services and long distance telephone services.

3 METHODOLOGY

The present research is of a descriptive nature and has as a basis quantitative research. The data report was carried out through the application of a survey. Where an adaptation of the SERVQUAL Scale was carried out which starting off from it, passed on to be based on the

following dimensions of the quality: Tangible, Dependability, Attention, Security and Empathy. Parasuraman, Zeithaml & Berry (1985), developed a measuring instrument of the quality of services perceived by the client, called SERVQUAL Scale that consists of two affirmative declaration interviews, making reference to the client's expectation and his perception of the quality of the provided service.

In both LTC's ("A" and "B") the questionnaire was applied for 50 clients, totaling 100 questionnaires. As to the LTC's managers of the: "A" possesses 3 and "B" possesses 2, which responded to the questionnaire. The enterprises are located in Santa María City - RS, the application of the questionnaires was carried out in the period from December 2006 to January 2007. For the evaluation of the dimensions of quality a scale of five performing levels was used, from extremely important to unimportant ones.

Chart 1 – Scale used in each dimension quality.

Importance	Performance
(1) Unimportant	(1) Bad
(2) Not very Important	(2) More or less
(3) Important	(3) Good
(4) Very Important	(4) Very Good
(5) Extremely Important	(5) Excellent

Source: Own production

In the adapted SERVQUAL model, the determinants were defined according to the reality of the specific service being analyzed. In this case, the determinants of the quality were adapted to represent the service in their entirety. Thus, so as not compromise the dependability of the measuring scales, the attention should face the elaboration of an enough number of questions to represent the entirety of the attributes that contemplate the concept of chosen determinants. The insufficient number of questions or the lack of scope of the concepts used can harm the dependability of the scales.

For the size of the sample, in Enterprise A, the Formula 1 (LOPES, 2008), was used, with normal distribution: trust interval of 95%; $Z_{2\alpha/2} = 1.96$; $p = 0.9$; $q = 0.1$; $\alpha = 0.05$, sample error: 10% and $N = 2875$ at a significant level of 10%, the minimum sample belong to 35 people,

according to Chart 1. Therefore, the survey was carried out in 35 clients (external clients), the same survey was also carried out on the officials or employees (internal clients) of the enterprise. In enterprise B the same procedure was carried out, with normal distribution: Interval of trust of 95%; $Z_{\alpha/2} = 1.96$; $p = 0.9$; $q = 0.1$; $\alpha = 0.05$, sample error: 10% and $N = 2234$ at a significance level of 10%.

$$n = \frac{Z_{\alpha/2}^2 \cdot p \cdot q \cdot N}{e^2 (N - 1) + Z_{\alpha/2}^2 \cdot p \cdot q} \quad (1)$$

Chart 1 presents the calculation of the different sizes of the samples (n) considering the error (e) in which one can observe that a sample size 35 was selected with an error of 10%, starting off from which a $Z_{2\alpha/2} = 1.96$ of the normal distribution was used with a proportion $p = 0.9$; $q = 0.1$ and an alpha $\alpha = 0.05$ with a population of (N_A) 2875 and (N_B) of 2234.

Chart 1 – Calculation size of the minimum sample (n) in function of the error (e)

Enterprise A						Enterprise B					
E	n	E	n	e	n	e	n	e	n	e	n
1%	1571	2%	666	2.5%	465	1%	1358	2%	624	2.5%	445
3%	340	4%	202	5%	133	3%	329	4%	198	5%	131
6%	94	7%	70	10%	35	6%	93	7%	69	10%	35

Source: Own production

The analysis of dependability (internal consistency) was carried out through the calculation of the Cronbach Alpha (that varies between 0 to 1). According to Ledesma et al (2002) Alpha estimates the inferior limit of the coefficient of reliability and it is expressed as:

$$\alpha = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum S_i^2}{S_{sum}^2} \right) \quad (2)$$

Where k is the number of items of the test, S is the variance of the items (from 1...i) and S_{sum}^2 is the variance of the total test. The coefficient measures the reliability of the test in function of two terms: the number of items (or length of the test) and the proportion of total variance of the test due to the covariance among its parts (items). It means that the reliability depends on the longitude of the test and of the covariance among its items.

For Hair et al, (2006), a value of at least 0.70 reflects that it is trustworthy and acceptable, but it is recognized that, that value is not an absolute measure. For Malhotra (2001) the reference value to be considered is 0.60, under that value the author considers that the indicated one is not

acceptable. Chart 2 shows Cronbach's calculation of Alpha so much for the dimensions as what is related with the general of the research and of the sample.

Chart 2 – Cronbach's Calculation of Alpha of dimensions of the quality and general

Value Alpha of each dimension of the Quality		
Dimension	Internal client	External client
Tangible	0.986	0.984
Dependability	0.998	0.992
Attention	0.996	0.893
Safety	0.973	0.947
Empathy	0.988	0.981
General of research	0.95	0.904

Source: Own production

When smaller the individual variance of the items, greater will be the variance that these produce in the whole, and the coefficient of internal consistency of the instrument. With basis on the data it is possible to observe that in general Cronbach's Alpha, for the sample, it presented itself satisfactory with values above 0.9.

4. ANALYSIS OF RESULTS

4.1 Sample profile

In the LTC "A" 64% of the clients' researched were males, and 36% females, as for the management it is carried out by females, and one male. The research showed that of the 50 interviewed clients, 64% possesses the second grade complete, 18% the first one and 18% the third grade. As for the managers, the three possess the third grade, as shown in Chart 3. As for the LTC "B", in relation to the clients: 59% are females and 41% males, the management is exercised by the males. In relation to schooling level, one of the managers has the second grade and the other one the third.

Chart 3 - Clients and Managers' Schooling Level.

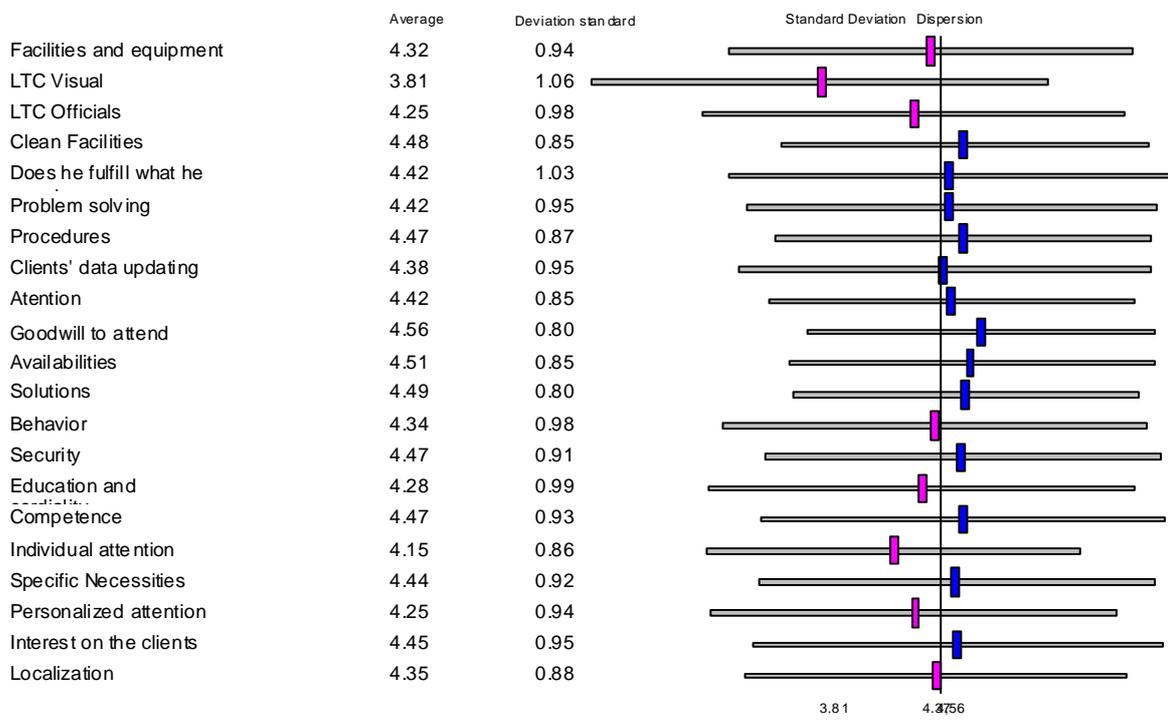
Schooling level	Sample			
	LTC A		LTC B	
	Clients	Managers	Clients	Managers
	Frequency	Frequency	Frequency	Frequency
1°Grade	9	--	16	--
2°Grade	32	--	26	1
3°Grade	9	3	8	1
Total	50	3	50	2

Source: Own production

4.2 importance and Performance of the services rendered by the LTC "A"

The analysis of the average value and the standard deviation of the degree of Importance of the agreement with the clients of the LTC "A" can be visualized in Figure 2.

Figure 2 – Average Value and Standard Deviation of the Degree of Importance in the opinion of the Clients of the LTC "A."



2.75

3.81

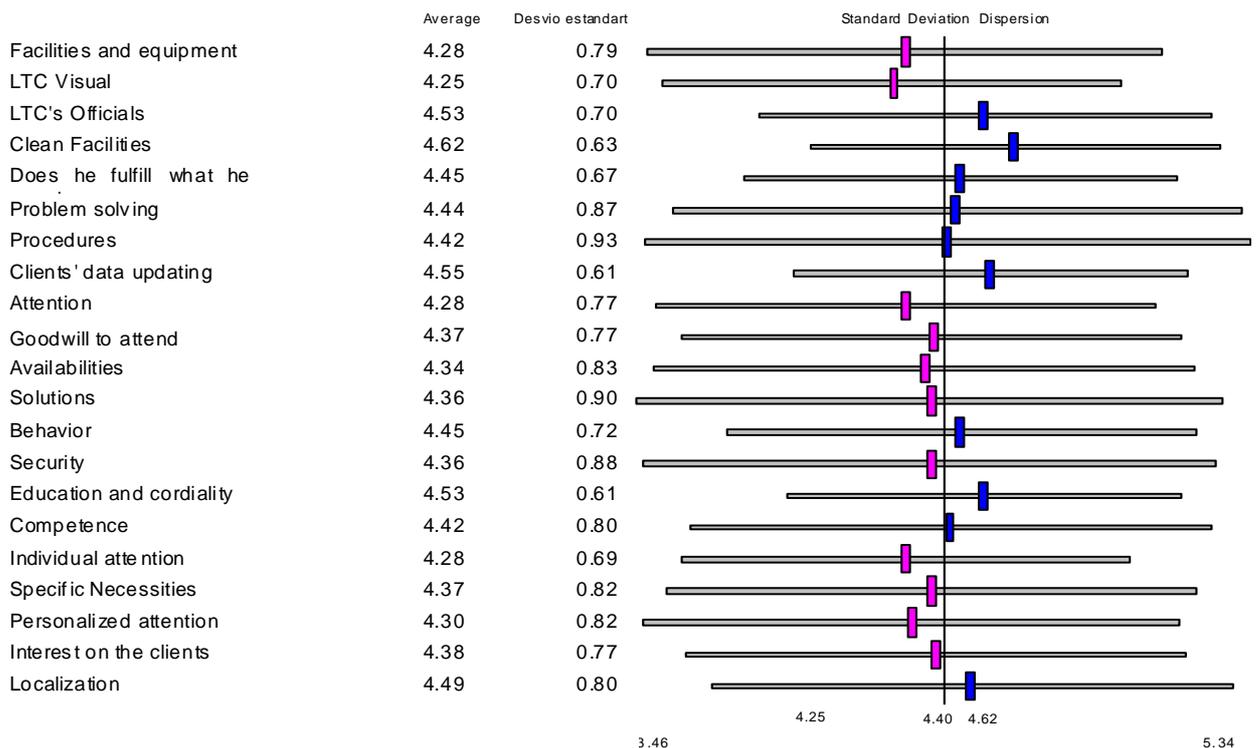
4.3756

5.44

Source: Own production

The greater degrees of Importance were attributed to the items of the "goodwill to attend", "officials' availability", search for solutions", "clean facilities", "competence to answer to doubts", and safety. The item with lower average importance (average 3.81), was the visual LTC. In Fig. 3, one observes the analysis of the average value and standard deviation for the Development of the institution, in the conception of clients of the LTC "A."

Figure 3 Average value and Standard Deviation of Performance Degree in the opinion of "LTC's" Clients



Source: Own production

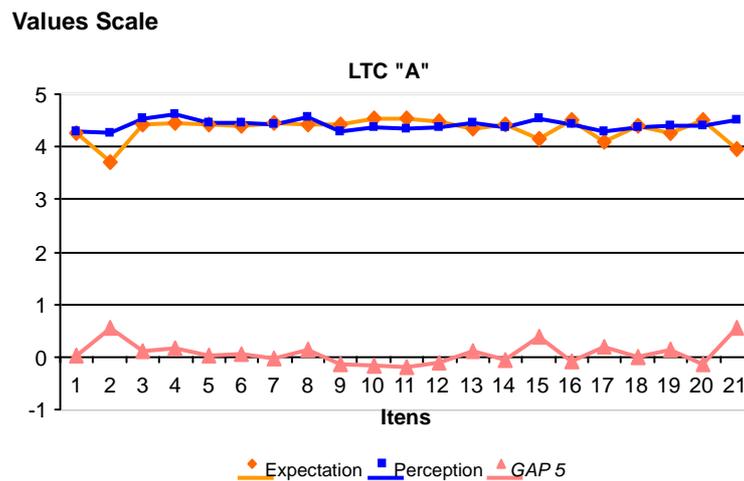
One observes that the higher marks were attributed to the "clean facilities", "updating clients' data", "officers' image", and "education and cordiality". The lower marks are on: "LTC's Image", "Facilities and equipment", "Attention" and "Individual attention".

4.3 Analysis of GAP 5 for the LTC "A" for Clients

It is observed in Figure 4 that the attention aspect present Gaps in all its items. As to the attributes questioned on that aspect, "to readily assist" (9), "goodwill in assisting" (10), "availability" (11) and "solving clients' problems" (12), are low in the expectations, therefore in this dimension of quality it is unacceptable. The confrontation between the expectation and the perception brings with it the possibility to meditate on aspects that are sometimes ignored by the organization or

even pass on as not perceived. It is necessary at the same time to be cautious and to be agile, when it has to do with indicators of services quality. Agility to transform indicators of dissatisfaction into indicators of improvements, and at the same time be cautious of not compromising the financial health and relationships with the clients, in precipitated or disordered actions.

Figure 4- Analysis of the GAP 5 for LTC Clients' "A"

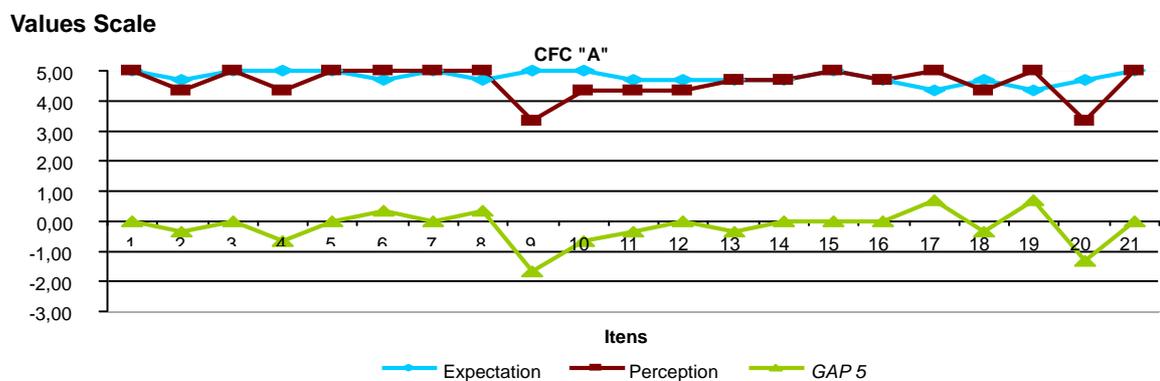


Source: Own production

4.4 analysis of the GAP 5 for the LTC "A" for Managers

In the Figure 5 are visible that in the optics of the managers the average value in relation to the expectations varies from 4.67 to 5.00 and as soon as those of the perception of 3.33 the 4.67.

It figures 5-Analysis of GAP 5 for Managers LTC "A."



Source: Own production

It is observed that the opinion of the managers coincides with those of the clients, evidencing

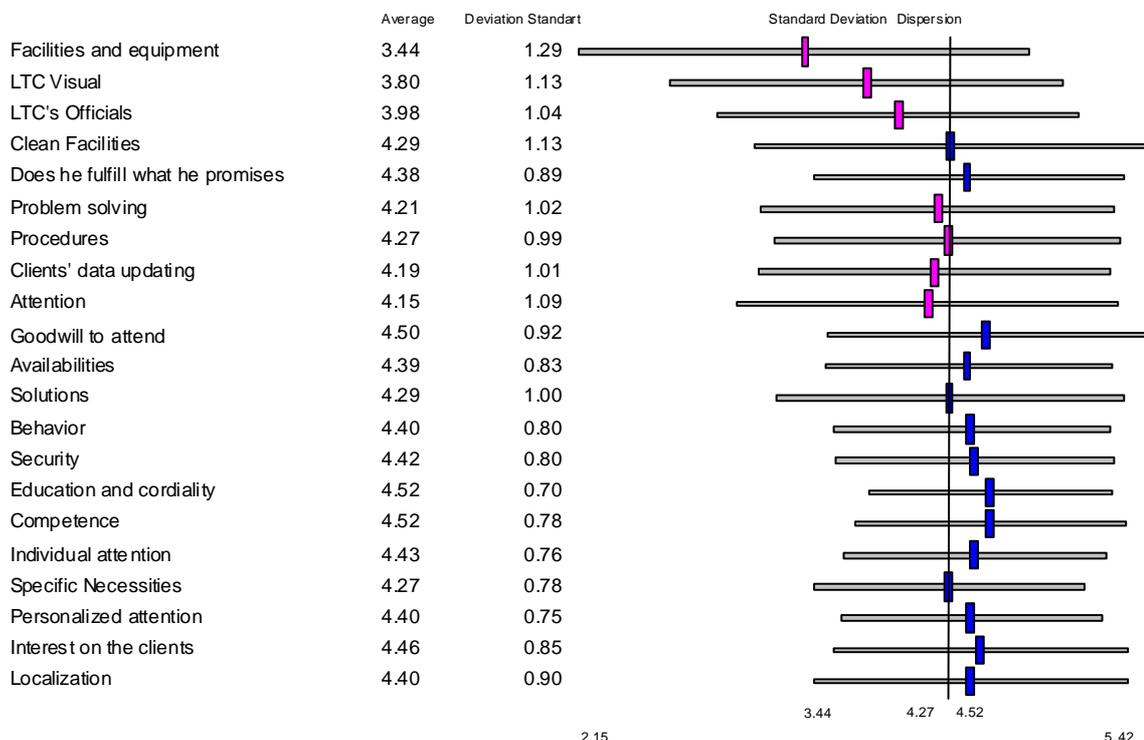
that the services of their officials' attention are below the expectations. Items 18 and 20, "the officials understand the specific necessities of their clients" and "the officials demonstrate real interest in solving the problems of the clients" they are below what expected. In the last attribute, the opinion of the clients as the managers, coincide being that, the provided services are below the expectations.

4.5 importance and Performance of the services rendered by the LTC "B"

The Analysis of the average value and it deviated standard of the degree of agreement Importance with the clients of the LTC "B" can be observed in Figure 6. The greatest degrees of Importance found for the LTC "B" were attributed to the items: education and courtesy, competency, goodwill in assisting. While the least degrees of Importance are for facilities and equipment.

According to what shown in Figure 6 it is clear that the ligation between the execution of the service and people is provided by people, then the Importance of the selection, the training and the officials' motivation can make a great difference in the client's satisfaction. Officials should be shown as competent, attentive, committed and agile for the solution of problems.

Figure 6 - Average Value and Standard Deviation of the Degree of Importance, in the opinion of the LTC "B." Clients'.



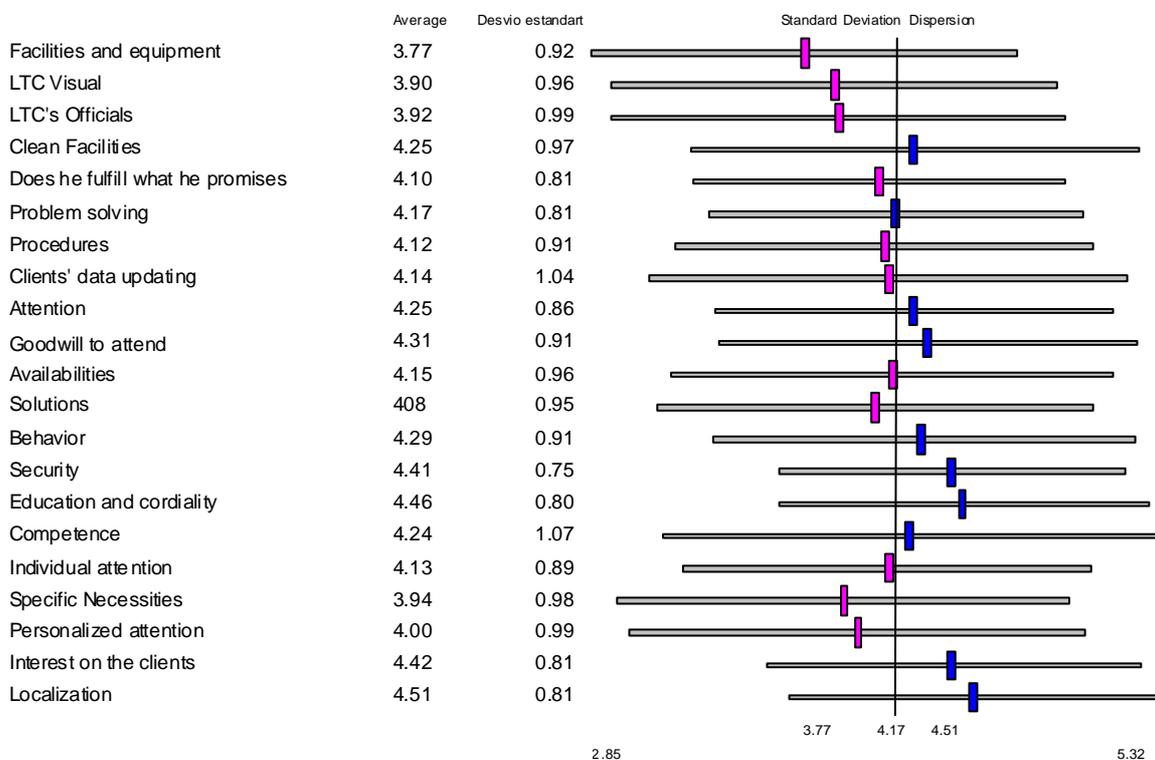
Source: Own production

In the Analysis of the average value and standard deviation of the organization in the opinion

of the clients of the LTC "B" is found in Figure 7. The highest mean values were attributed "to localization" "and education and courtesy." The lowest values found were in: "facilities", "equipment" and "LTCs" image.

The access item that presented an average value of 4.51, says regarding the easiness that the client enters in contact with the service rendered (important when the client's physical presence is necessary in the service premises). They influence the access to the localization of the service render, the signaled access, the parking lot existence, and ample attention timetable, capacity for phone access and capacity to take the service to the client such as home deliveries.

Figure 7 - Average Value and Standard Deviation of the Performance Degree in the opinion of the Clients of the LTC "B."



Source: Own production

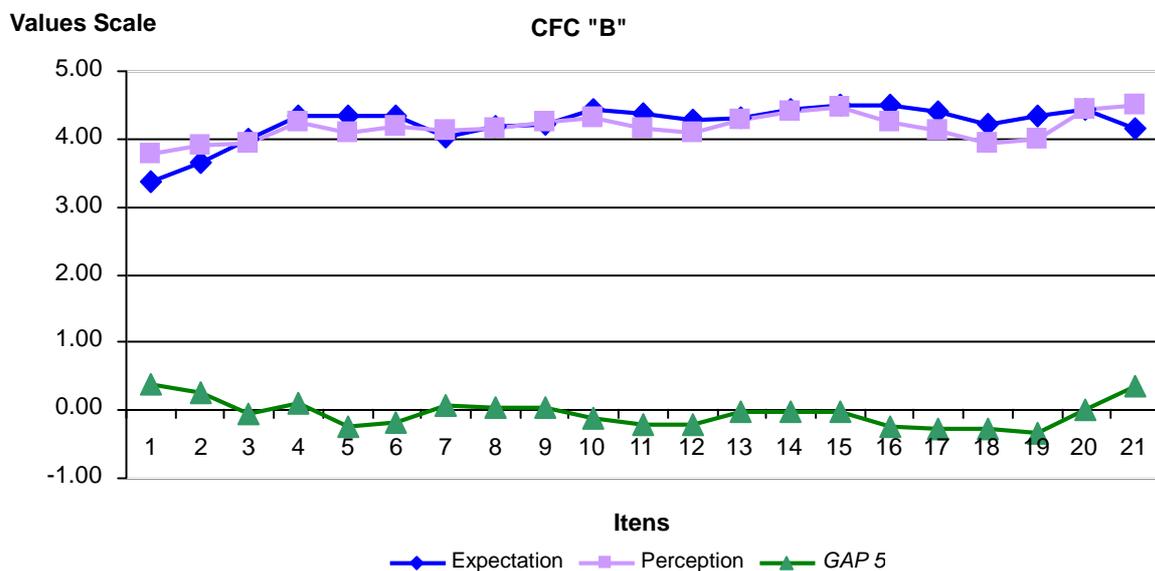
4.6 Analysis of GAP 5 for the LTC "B" for Clients

For SKALRESN FOUGERE (2007) the Gap model was created to diagnose how the organization works in terms of management of the projected service, and to give instructions on how to carry out the level of the quality perceived by the client. The Gap expectation-perception, not only produces a field of knowledge that people make comparison of things, also its main

function is of serving as instrument so that that comparison is carried out. Therefore, Figure 8 evidences that under the point of view of the clients, the average value in relation to the expectations varied from 3.38 the 4.50 and as to those of the perception of 3.77 the 4.51.

In general all the items present Gaps 5, but in the aspects "attention" "security" and "empathy" that is more evident. According to Giansesi & Corrêa, 2006 the attention is in general an important item for most of the consumers of services, more so when the client's presence is necessary. The time that the client has to lose to receive the service is generally considered lost time, unless the service includes some type of pleasure for the client. As for the "security" aspect it has to do with the competence of the enterprise, the courtesy that it demonstrates for their clients and the certainty of their operations. The competence belongs to knowledge and ability of the enterprise to render its service. Courtesy reflects solidity, and considerations for the client's property. This dimension presented the greatest degree of satisfaction in the perception of the clients.

Figure 8-Analysis of GAP 5 for Clients the LTC "B."



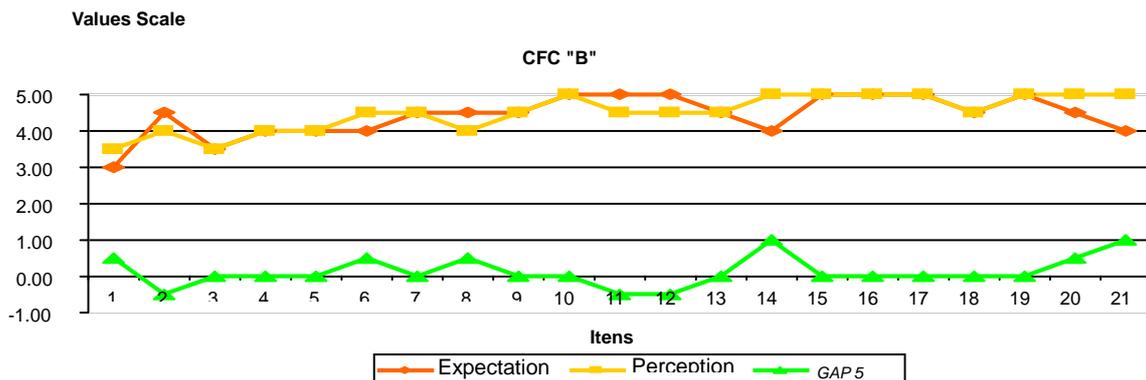
Source: Own production

The courtesy of the officials is also an important element to create a good perception. The aspect empathy evaluates the level of pleasure that the client has in participating when being present in the process of rendering services. Of all the analyzed aspects this was the one that presented more deficiencies, from the point view of the clients'.

4.7 analysis of GAP 5 for the LTC "B" for Managers

Figure 9 shows the Gaps found from the managers' point of view. The managers of the human resources worry with the internal clients; in consequence they are responsible for training, planning and personnel's policy. But the most important aspects are bound to the external client on how the manager perceives the client's satisfaction in function of the offered service. In relation to the point of view of the performance, managers and clients are in disagreement in several aspects in their evaluations. In the "empathy" aspect for the clients, the perception is below that awaited, in compensation for the managers there is an appraisal of the performance, this difference makes that the evaluated points be separated, presenting distortion in the perceptions. The same fact happens in the other aspects.

Figure 9-Analysis of GAP 5 for Managers the LTC "B."



Source: Own production

4.7 Correspondence analysis

The correspondence Analysis between the degree of Importance and the criteria relating to the LTC's Physical Aspects attributed by the interviewees can be visualized in Table 4.

Table 4 - Facilities and equipment, Image of the LTC, LTC's Officials, clean facilities.

Answers	Without Importance	Not very important	Important	Very important	Extremely important	Total	
Facilities and equip.	0.0%	8.6%	2.9%	18.1%	32.4%	38.1%	100%
LTC Visual	1.0%	3.8%	6.7%	26.7%	29.5%	32.4%	100%
LTC's Officials	0.0%	1.9%	6.7%	14.3%	32.4%	44.8%	10
Clean facilities	1.0%	3.8%	1.0%	11.4%	20.0%	62.9%	100%
Group	0.5%	4.5%	4.3%	17.6%	28.6%	44.5%	100%

Source: Own production

To verify if relationship exists between the degrees of Importance with the analyzed criteria, as the degree of performance of the organizations the correspondence Analysis was carried out. The test carried out was the Chi-square one at level of 5%, which showed to be hardly significant for the physical aspect, as much as for the Importance as for the Performance. It is observed that the image of the LTC's is important, those "clean facilities" are extremely important and those "facilities and modern equipment" are considered without Importance by the users.

Table 5 shows the degree of Performance of the LTC's and the relating approaches to the physical aspects. It is observed that the clean facilities were considered excellent. The following table shows the average value and the standard deviation attributed by the clients and interviewed managers of the two LTC's, as for the Importance attributed to the rendered services.

Table 5- Institution Performance as to the physical aspects: Facilities and equipment LTC's image. LTC's Officials. Clean Facilities.

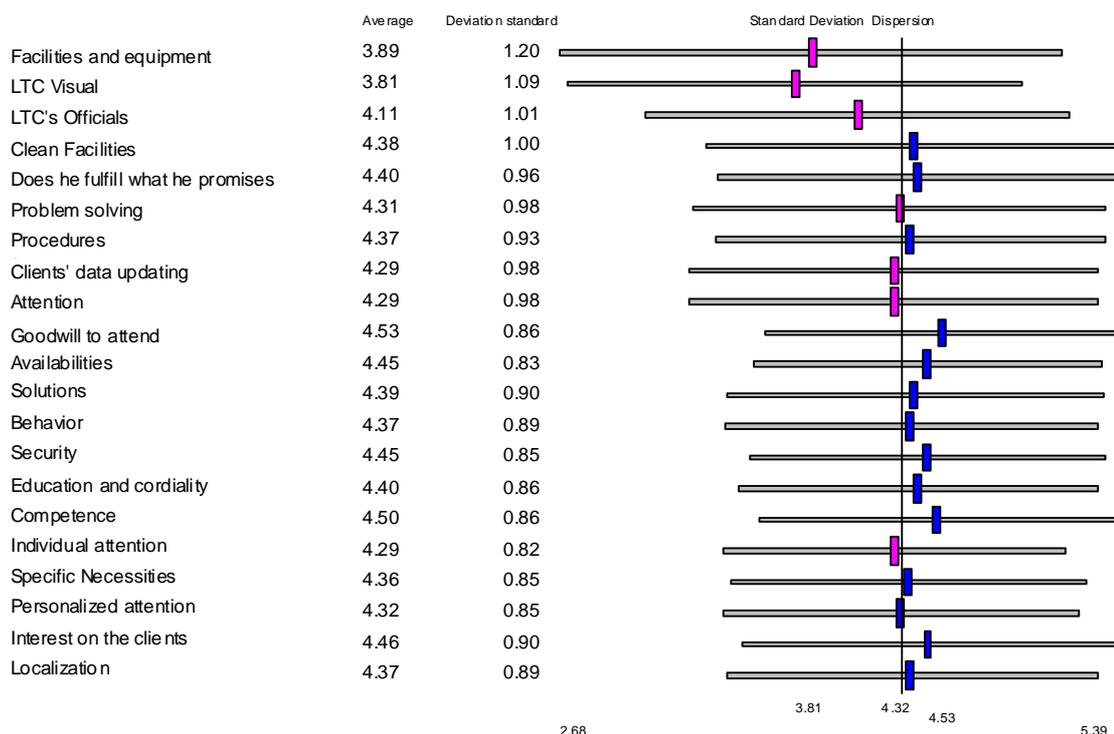
Aspects	Terrible	Bad	More or less	Good	Excellent	Total
Facilities and equipment	1.0%	4.8%	18.1%	42.9%	33.3%	100,00%
LTC's Visual	0.0%	5.8%	15.4%	44.2%	34.6%	100,00%
LTC's Officials	1.0%	3.8%	14.3%	33.3%	47.6%	100,00%
Clean facilities	1.0%	2.9%	7.6%	28.6%	60.0%	100,00%
Group	0.7%	4.3%	13.8%	37.2%	43.9%	100,00%

Source: Own production

4.8 Analysis of the degree of Importance of services rendered by the LTC's (A and B)

It is observed that the highest mean values were attributed to: "goodwill in assisting" and "competence", with a variation coefficient around 19%, which indicates low variation. That shows that those services are the most important for the interviewees. The lower values were attributed to the "LTC's image" and those "facilities and equipment", showing that those items are not the most important for them, as can be observed in Figure 10.

Figure 10-Average Value and Deviation Standard Importance attributed by the Clients and Managers to the services rendered by the LTC's.

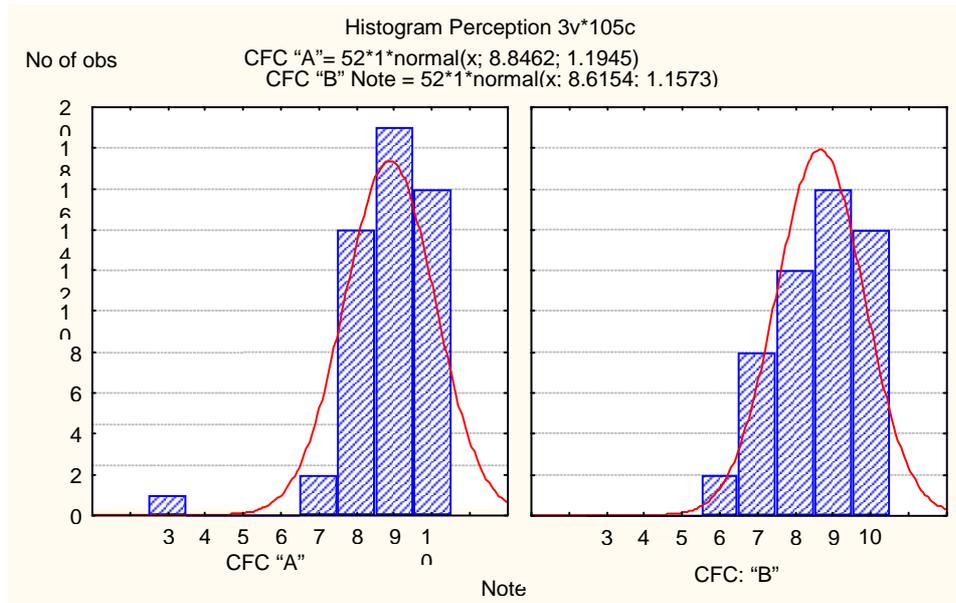


Source: Own production

4.9 Evaluation of the General Satisfaction Degree

The general note was evaluated at the end of the quality aspects, attributing to the matter a mark within a scale of 0 to 10. Figure 11 shows the mark attributed by the users of two Leader Formation Centers (LTC's) as for the Degree of General Satisfaction, in relation to the quality of the services rendered by the LTC's. It is observed that the predominant marks attributed by the interviewees were 10, 9 and 8 (very satisfied clients). That concentration of high marks can be observed in the histograms, represented in Figure 11. The graphic Box-Plot, illustrated in Figure 12, shows that in general the distribution of the marks resemble each other. Likewise, there exists an outlier observed in LTC "A."

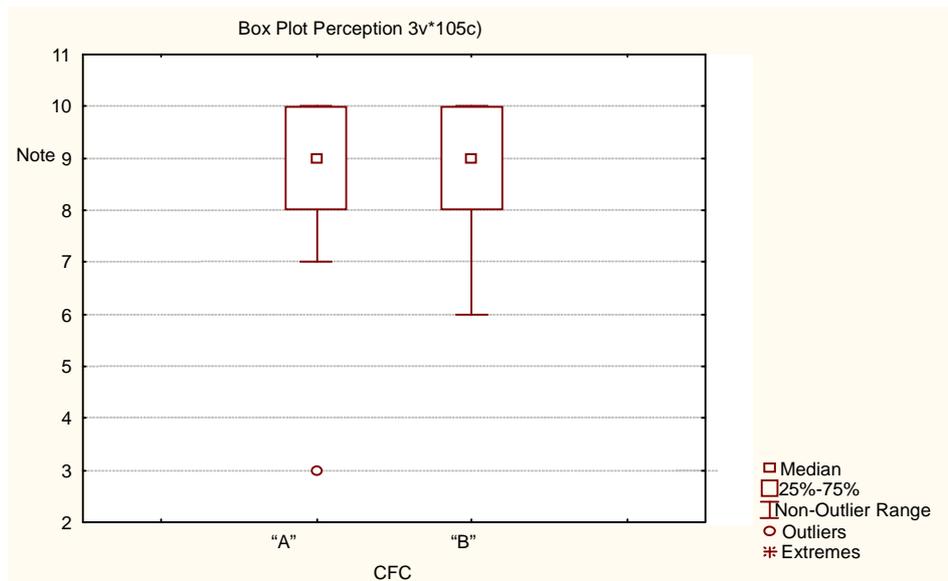
It figures 11 - Histogram of the marks attributed by the interviewees as for the degree of satisfaction of the services rendered.



Source: Own production

In the histogram of Figure 11, In the LTC "A", showing that a client is not satisfied with the service. The graph also shows that an asymmetry exists in the distribution of the data that concentrates most of the marks on the high values.

Figure 12 - Box-Plot Graphic of the LTC's descriptive statistics.



Source: Own production

5. CONCLUSIONS AND FINAL CONSIDERATIONS

The present work tried to show the Importance of the quality in services, in two of Leader Formation Centers (LTC's), considering expectations versus perceptions, by means of the SERVQUAL tool technique that facilitates the interpretation of the data. The results evidenced that, the quality of the services rendered in several researched attributes, the expectation is above what expected. In the attention dimension, LTC "A", the service perceived by the clients is below what expected, the same was evidenced by the management. Because for Bennet & Barkensjo (2005) a satisfied client might return to the purchase site several times and of exposing positively the image of the enterprise in its relationship chain. As for the LTC "B" the point of view of the clients' and the management differ clearly, there existing necessities of changes, because the service quality is unacceptable.

Due to that, within the service sector, the clients are key pieces for the competitive advantage; the organization should not measure efforts to facilitate the officials trainings to overcome the clients' expectations and necessities.

All the Analyses made in this work had as main idea the client's satisfaction. Johnston (2004) suggests that satisfaction should be expressed in terms of emotion, because when the client is asked on his satisfaction with the presented situation, he does a rational judgment. He makes a rational judgment.

Therefore, the present research can be good to help the agents of the organizations for managing better the offered services, starting off from SERVQUAL methodology use, with the objective of the search for excellence, in the quality of rendering the service.

6. BIBLIOGRAPHY.

Please refer to articles Spanish bibliography.