The Use of The Servqual Model for The Composition of Self-Assessment in Hei, Case Study: Faculdade Do Litoral Paranaense - Isepe

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Abstract

The present article intends to identify the levels of satisfaction of the Faculdade do Litoral Paranaense ISEPE, in order to assess the results in relation to the five Dimensions structured in the Self-assessment being the Tangible Dimensions of Confidence, Responsibility, Security and Empathy. With that it adapted the model SERVQUAL developed by Parasuraman, Zeithaml and Berry (2006) and with the scale of Likert establishing a structured questionnaire in order to establish a direct communication with the academics and users. The general objective of this work is to adapt this model to be used in the Institutional Self-Assessment process of the Faculdade do Litoral Paranaense - ISEPE Guaratuba, seeking to verify the feasibility of the use of these models. After the results obtained and analyzed during the research, it is necessary to appreciate the management of the Institution with the objective of improving the quality of the services provided by the Institution, which are included in the dimensions surveyed.

Keywords: SERVQUAL, Self-assessment, Likert

1. INTRODUCTION

It is necessary to consider the increasing demands regarding higher education in the country, with the result that it is necessary to use tools that measure the quality of the services provided by these Higher Education Institutions (IES), from the perspective of such Dimensions, TD, CD, RD and ED. For this reason, this article presents a better approach and multicriteria for the application of the SERVQUAL method in the structuring of this Self-assessment. The main objective of this work is to systematize this tool, being able to identify the faults and virtues of the Faculdade do Litoral Paranaense. Thereby providing adequate subsidies for the management of the institution to reach its goals and objectives, as well as providing a suitable means for the search of the quality in the educational services provided by the Faculdade do Litoral Paranaense. The present article is presented in three sections, the first, explains about the SERVQUAL method used for the composition of the Self-assessment and the emergence of this method. The second

section refers to the use of this method for the application in Self-Assessment to its adaptability to the achievement of such indicators. The third and last section where the method applied and results obtained for the composition of this article, with considerable relevance the use of the results obtained with the purpose of improving the services provided by the Faculty of Litoral Paranaense..

2. SERVQUAL

Given the need to establish the perception regarding academic satisfaction, the use of the SERVQUAL model to compose questionnaires becomes an instrument of great value in decision-making. However Parasuraman, Zeithaml and Berry (1985), regardless of the type of service, consumers use the same criteria to assess quality. The quality of the service is a general opinion that the customer's forms respect their delivery, consisting of a series of successful or unsuccessful experiences. Identifying these gaps in the service will help the company or institution improve its quality of service provided by a particular institution. For Lovelock (2001), such shortcomings are not the only means that clients use to judge a service. They can also use five broad-based dimensions as judgment criteria: reliability, tangibility, responsibility, security, and empathy. For Oliveira and Ferreira (2009) they seek to adapt the generic SERVQUAL scale for the Higher Education services sector according to the most important determinants: reliability, tangibility, responsiveness, security and empathy. However, several scholars criticized the SERVQUAL of Parasuraman and others. Dotchin and Oakland (1994) stated that the SERVQUAL dimensionality depends on the context that is applied and cannot be generalized in any industrial service.

2.1 Servqual and its use in Higher Education institution (HEI)

It must be considered that higher education institutions have been increasingly recognized as a service industry as a sector and should strive to identify the expectations and needs of their clients, who are the students (MELLO, DUTRA and OLIVEIRA, 2001). SERVQUAL is the method that evaluates customer satisfaction because of the difference between expectation and the performance obtained. According to Zeithaml, Parasuraman and Berry (1990), SERVQUAL is universal and can be applied to any service organization to evaluate the quality of services provided. Higher education institutions are also seeking improvements in quality service education to meet the expectations of their students and the market. However, since the education services have very particular characteristics, the SERVQUAL model must be adapted according to the most important determinants: reliability, tangibility, responsibility, safety and empathy, as proposed by Parasuraman, Zeithaml and Berry (1985).

3. SELF-ASSESSMENT IN HIGHER EDUCATION INSTITUTION

There is a growing need for higher education institutions to adapt to the market and offer their educational services, thereby using the means to identify and solve such needs and self-evaluation is one such instrument.

The evaluation of HEI, therefore, serves in its main objective to know the situation of the institution, pointing out possible improvements or corrections of direction. With the advent of SINAES, conceived in

2003 by the Special Commission for the Evaluation of Higher Education (CEA), according to the MEC / Sesu Ordinances No. 11 (April 28th, 2003) and No. 19 (May 27th, 2003), the institutional evaluation to have the objectives of "analyzing, offering subsidies, making recommendations. This way, proposing criteria and strategies for the reformulation of Higher Education evaluation processes and policies and elaborating the critical revision of their instruments, methodologies and criteria used", according to the MEC's own determination (MARBACK NETO, 2007, p.193).

It is also worth mentioning that the system of institutional evaluation established by SINAES (created by Law 10.861 / 2004, which also establishes CONAES - National Commission for the Evaluation of Higher Education - which is responsible for the coordination and supervision of SINAES, and (MARPAACK, 2007; ARAÚJO, CORREIA, 2005). This system was built based on three evaluation processes (BRASIL, 2004, p.13): "Evaluation of the Institution (Self-evaluation and External Evaluation); National Student Performance Examination (ENADE); Evaluation of Undergraduate Courses ". The Evaluation Committee (CPA) has the function of "preparing the external evaluation instrument for the purpose of university accreditation" (MARBACK NETO, 2007, p.194, ARAÚJO, CORREIA, 2005, p 114).

According to Brochado, Pithon and Pereira (2006), in this process, evaluation is understood as a structured activity that allows the verification of institutional quality, aiming to contribute to self-knowledge and improvement of the activities developed by the institution and to bring important regulation and education policy formation. In addition, it has the function of subsidizing the regulatory processes for accrediting and recreating HEI, taking into account the important principle of respect for diversity and institutional identity. The SINAES consists of three types of evaluation:

Internal Evaluation of Higher Education Institutions (IEHEI), characterized by the Self-Evaluation of HEIs, which is carried out by the Evaluation of educational research institutions, composed of internal members of HEIs and external members of civil society.

1) Evaluation of Undergraduate Courses (EUC), carried out through instruments and procedures, which include participation of external commissions through on-sitevisits.

2) Students' Performance Assessment (ENADE), which aims to measure the performance of undergraduate students in relation to program content, their skills and competences. The students to be evaluated must be enrolled in the first or last year and are selected by sampling by the National Institute of Studies and Educational Research Anísio Teixeira - INEP.

Self-assessment is also an institutional tool with a pedagogical character, which aims to search for improvements and self-regulation, as well as understanding of culture and institutional life in its academic and administrative plurality. These objectives are supported by the participation of university agents, as it is a social and collective process of reflection, production and socialization of knowledge about HEI with an indicator of transformative action.

Oliveira et al. (1999) argue that there are several motivations for evaluating educational institutions at all levels. These motivations range from the best use of financial resources, to the opportunity to subsidize decisions regarding administrative and pedagogical dimensions. With the intention of starting the process of changes in higher education, more precisely in undergraduate studies, the Federal Government implemented the national evaluation   system.

4. METHODOLOGY

The methodologies for the elaboration of this research are based on the works of Terzakis et al. (2012) and Mello, Dutra and Oliveira (2006), these authors approach the SERVQUAL Model.

According to Mello, Dutra and Oliveira (2006) use such a model were used in the Administration courses of the Federal University of Pernambuco to evaluate the quality of educational services. Based on the model the sentences were elaborated for the identification of the perceptions of academics in relation to Dimensions requested by the evaluation instrument for the HEIs requested by the Ministry of Education - MEC.

This research was carried out from July to October 2016 as a component part of the Self-assessment carried out at HIE - Faculdade do Litoral Paranaense - ISEPE. For the composition of this research, the SERVQUAL model was used and adapted to the educational model, 365 respondents enrolled in the HEI of all the courses, in order to identify the five dimensions described in table 1.
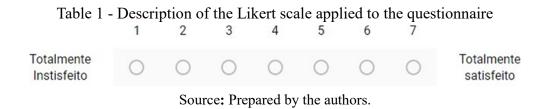
Table 1 - Description of Dimensions and Quantities of questions for each Dimension.

Dimension	Qty
Tangible Dimension	4
Dimension Confidence	5
Dimension Responsibility	4
Dimension Security	3
Dimension Empathy	5

Source: Prepared by the authors.

The composition of the questionnaire ranged from 1 to 5 questions for each dimension, as summarized by SINAES, with the sum of 21 questions in total. These questions were divided into 5 Dimensions analyzed. Being Dimension Tangible - DT with 4 sentences, Dimension Confidence - DC with 5 sentences, Dimension Responsibility - DR with 4 sentences, Security Dimension with 3 sentences and lastly the Empathy Dimension - DE closing with 5 sentences, using the Likert scale from 1 to 7, where indicates 1 for totally dissatisfied and 7 for Totally Satisfied.

These dimensions were studied and described by the SINAES. The purpose of this study was to evaluate the satisfaction levels observed by the IES academics related to Physical Infrastructure, especially the teaching and research, staff, library, information and communication resources, using the Likert scale in Table 1, indicating Totally Unsatisfied to 1 and Totally Satisfied to 7.

Table 1 - Description of the Likert scale applied to the questionnaire

	1	2	3	4	5	6	7	
Totalmente Instisfeito	○	○	○	○	○	○	○	Totalmente satisfeito

Source: Prepared by the authors.

The aim of the questionnaire is to evaluate the levels of satisfaction in reference of the dimensions discriminated by SINAES, with the respondents being the students of all those enrolled in the IES Faculdade do Litoral Paranaense - ISEPE, based on these cataloged data, making it possible to arrive at the appropriate conclusions of the study. To evaluate if the results with the intention to present greater reliability and robustness to the research, it was decided to carry out the application of the Alpha Coefficient of Cronbach in the aforementioned questionnaire.

To Bland, Altman, (1997), Cronbach's alpha coefficient (α) is one of the measures commonly used to give more reliability to a set of indicators to the construct. Considering these indicators, if the values of α vary from zero to 1.0, that is, the closer to 1, the greater the reliability between the indicators:

$$\alpha = \frac{K}{K-1}\left[1 - \frac{\sum S_i^2}{S_T^2}\right]$$

The results obtained in this self-assessment were submitted to the validation of this questionnaire, the Cronbach alpha coefficient $\alpha = 1.00$, that is, it became reliable to apply this questionnaire to obtain data related to DT, CD, RD, SD and ED.

5. RESULTS AND DISCUSSION

When analyzing the results obtained through the survey with the application of the SERVQUAL model, it was observed that the majority of respondents indicated a certain relevance of the indicators mentioned below. Most of them being in point 5, closest to Totally Satisfied - TS, a good progress was made in the works applied in the referred HEI in reference to the dimensions researched and incorporated in the Self-asessment. As required by the MEC regulatory body, which measures the concepts related to the release, accreditation and re-accreditation stipulated for each course in HEI in Brazil, at the same time this requires that the Pedagogical Coordination work increasingly in these dimensions to improve higher education in this HEI, according to table 2 below:

Table 2 - Questionnaire used for Self-assessment

Tangible Dimension	<TU						TS>
Excellent higher education institutions should have modern equipment, such as laboratories, etc?	12	15	60	49	144	44	37
The facilities of higher education institutions must be well maintained.	8	10	35	34	163	54	56
Employees and teachers in an excellent higher education institution present themselves (punctual, cordial, clean, etc.) in an appropriate way for their position	5	6	28	29	162	73	57
The material associated with the service rendered at the excellent higher education institutions, such as invoices, printed matter or pamphlets, will appear in a good visual way	4	7	18	48	167	60	53
Confidence Dimension							
When excellent institutions of higher education promise to do something at a certain time, they do.	13	11	59	60	145	41	31
when a student has a problem, excellent higher education institutions demonstrate sincere interest in solving them	20	19	47	75	130	40	30
The behavior of the teachers of excellent institutions of higher education inspires confidence to the students.	5	10	39	39	153	71	44
Employees and teachers in excellent institutions of higher education promise their clients services within deadlines that they can achieve	5	5	23	52	185	58	30
The student records system in the office is efficient and always up to date.	9	8	49	41	156	57	33
Responsibility Dimension							
Employees and teachers in excellent higher education institutions are willing and available during the provision of the service.	2	7	16	40	195	60	42
Employees in excellent institutions of higher education are never busy to answer questions.	5	7	34	62	162	56	31
Employees and teachers in excellent institutions of higher education always show good will in helping their students.	6	4	27	41	161	67	55
Teachers demonstrate sincere interest in helping students.	8	4	24	38	145	79	65
Security Dimension							
The behavior of employees and teachers in excellent institutions of higher learning inspires confidence in students.	4	4	21	47	184	55	43
Students of excellent institutions of higher education feel safe that they are studying the correct content of the disciplines.	2	6	43	38	166	56	47
Employees and teachers in excellent higher education institutions should have the necessary knowledge to respond Student issues	3	3	20	41	165	68	57
Empathy Dimension							
Excellent higher education institutions have employees and teachers who provide individual attention to each student.	5	7	41	60	157	54	30
Excellent Higher Education Institutions have teachers who care about students helping them achieve understanding the content	1	9	27	34	163	67	51
Excellent higher education institutions should understand the specific needs of their students.	1	8	36	62	161	51	35
Excellent higher education institutions should focus on the best service for their students.	3	7	34	49	170	53	34
Excellent higher education institutions have convenient working hours for their students.	5	5	29	41	169	54	48

Table 2 - Questionnaire used for Self-assessment

In this sense, the Self-Assessment tends to promote improvement processes; the educational systems need relevant information by practice of this instrument, which should be part of the deliberate strategy for improvement. From the pedagogical point of view, only when the self-evaluation provides information that allows making decisions for continuous improvement of the pedagogical practice, is it possible to move towards quality teaching, hence it refers to the increasingly strong relationship between quality and application of this model to the better decision-making.

Taking into consideration the Tangible Dimension - TD the respondents took into consideration the structure offered by the HEI thus making it closer to the answers totally satisfied, in relation to all the sentences described in this dimension, ie for the general direction and pedagogical coordination the trajectory of that is developed until the moment of the research. In this sense the decision-making referring to the General Coordination and pedagogical coordination until the moment has become tangible, always taking into account the improvement and quality of the service provided related to this described dimension. However, the Confidence Dimension has been shown to be effective because the majority of the answers are between five and 6, that is, closer to the totally satisfied. Since the issues elaborated in this dimension are related to the services provided by the IES, this shows that the institution leaves transparent to its academics a good relationship of reliability among teachers, employees and management in general. In the Responsibility Dimension - RD, the respondents were satisfied with the service provided in this IES, because this dimension tends to identify the cordiality and availability of teachers and collaborators regarding the problem solving of these academics.

In the Security Dimension - SD respondents identified a good relationship of trustworthiness among academics, professors and collaborators of this IES, demonstrating a good understanding and necessary

knowledge to help and guide the academics of the Faculdade do litoral do Paraná - ISEPE. In this Dimension Empathy, most of the respondents were close to the totally satisfied, because in this dimension managers can identify the degree of empathy that their students perceive, as an individual attention to the student to help him to achieve a better understanding of the contents taught in the disciplines and also identify the needs of academic specificities.

Regarding the positive aspects of the applied evaluation model, the majority of the respondents considered relevant all the dimensions analyzed. In this evaluation, only in this way the coordination tend to analyze and evaluate all the aspects for the decision making in order to improve the quality of the service provided in higher education provided at Faculdade do Litoral Paranaense -ISEPE.

Based on the results obtained in this research, the Pedagogical Coordination and General Management has sufficient data for decision making, improvement and quality of services provided to Academics and communities in general, using the same for a better internal evaluation and adaptation to the concepts required by the Ministry of Education - MEC in relation to Private Higher Education Institutions.

6. RESULTS AND DISCUSSION

The results obtained with the use of the SERVQUAL model evaluated the quality of services provided through the difference between the expectations of quality and the quality perceived by the consumer. From the application of this model, we sought to identify the gaps between students' perception and expectations about the quality of the educational service offered by the institution. This methodology proved to be efficient for self-evaluation of Higher Education Institution (HEI). The choice of this model is justified because it is already consolidated among HEIs, providing proven practical benefits.

As the characteristics that the SINAES Dimensions seek to evaluate are sometimes directly related to the SERVQUAL model, instituting an adapted methodology that bridged the quality of the educational services perceived by the students and the performance in terms of the SINAES Dimensions. .] (FERNANDES, coord. Pedagogic, emphasis added)

The results of the last evaluations demonstrate that the level of student satisfaction, although below expectations, is relatively high, and therefore, the gaps found are small and are treated by the HEIS management so that they can be healed. At each evaluation, the results are different; the CPA and management of the HEI carefully examine the different types of results obtained in the annual evaluations. Then, discussed with the academic community, searching for the causes or factors of weaknesses and / or dissatisfactions pointed out. It can be said that currently, the HEI has reached the institutional objectives, together with the Self-assessment and the satisfaction in the offer of the educational service with its academics.

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