SERVICE QUALITY ANALYSIS OF UNIVERSITIES IN CUENCA, ECUADOR

Abstract: This study analyzes the service quality in universities based on users’ level of satisfaction of the service provided in the city of Cuenca, Ecuador. The methodology combines a descriptive and a multidimensional statistical analysis, the former demonstrates the frequencies and the percentages of the variables under study while the latter is used to show the group classification of the people under study. Hierarchical grouping is used since it determines the groups of people as a result of their common characteristics.

At first, the results indicate that in all cases the percentage of students’ satisfaction surpasses 65%. However, there is a minority group of people (3.67%) who are totally unsatisfied regarding their sense of belonging to the Institution and their class as well as with the teaching-learning process.

Keywords: Educational Marketing, Consumer behavior, Quality service, Customer satisfaction, Services marketing

1. Introduction

In a country where the economy revolves around a society that prioritizes knowledge, Higher Education has had a significant contribution in the training of professionals. Factors such as poverty and unemployment have both alerted and encouraged young people to constant self-fulfilment that prioritizes the attainment of an academic degree, which means a growing tendency in the demand of this sector. The interest of young people to specialize even more on certain professional areas has increased significantly; in 10 years the demand of students grew 20% in Latin America according to León-Paredes (2015). In Ecuador the demand grew 10.78% from 2006 to 2014 according to data published by SENESCYT (2015).

As a result of the significant progress of universities in the city of Cuenca, Ecuador, in 2011 the National Assembly declared it a “University City”. A year later, with the law that would close failing HEIs (Higher Education Institutions), two universities and a pedagogical institute in the city closed permanently for not complying with the minimum requirements for its accreditation; this caused other universities to take action and begin self-evaluation processes.

While it is true that in Ecuador Higher Education Institutions are evaluated from different points of view, an exploratory research carried out prior to this study was able to determine that the three main aspects considered for an adequate performance of universities were community involvement, research and all administrative services directly related with students. In this study, the importance of the aforementioned elements and the experience of students in
the Institution are considered top priority variables.

Without a doubt, one of the aspects that help improve quality in HEIs is service, which can also become a vulnerable quality when considering that enrollment could have an increasing dynamic, on the other hand, it helps alumni transmit an image which represents the quality they received at the institution and their recommendations will attract and retain current users. In this regard, it is necessary to learn about students’ level of satisfaction regarding the service quality provided by universities in Cuenca by assessing their perception and determining existing gaps. This study is aimed at finding the weaknesses or faults in service quality, especially in cases where users see themselves as co-participants, and classifying the people under study in groups by means of a hierarchical analysis. It combines a descriptive analysis and a multidimensional statistical analysis.

The most meaningful results of the descriptive analysis, which were also confirmed by the factorial analysis, at first indicate that in all cases the satisfaction percentage of students surpasses 65%. However, there is a minority group of people (3.67%) who are totally unsatisfied regarding their sense of belonging to the Institution and their class as well as with the teaching-learning process.

2. State of the art

2.1. Service as a differentiation strategy

Due to changes and great advances in technology and science, today communication between members of society is effective; globalization is evident and implies greater connectivity between the factors that intervene in the progress of nations. Franco-Restrepo and Arrubla-Zapata (2011) state that the behavior of higher education is not an exception in this sense and therefore through the good use of the aforementioned elements, it fosters, by means of the Ministry of Education, the adaptation and development of quality programs according to the demands and requirements of society and users of higher education. Trim (2003) suggests that university officials work in accordance with students in order to generate or add value to their service. Globalization in a university context according to Ordorika-Sacristán (2006) has been managed in competition “by social and academic prestige” making students increasingly demand greater levels of quality; Rodriguez-Ponce et al., (2011), confirm this by saying that the quality of academic service is one of the factors that drive competitiveness in universities these days and this causes HEIs to constantly worry about improving their service in order to attract and retain users.

When speaking of quality higher education service, UNESCO stresses the importance of activities and functions in research, teaching processes, trained staff and other programs that contribute to students’ academic level. It also considers that quality is reflected in the image of the Institution; it believes that infrastructure, furniture, community services and learners are the main aspects to be evaluated (UNESCO, 1995). In this regard, for organizations in general it has become a priority to develop strategic plans that aim at total quality, authors such as Sulé-Alonso & Lévy-Manguin (1999) define it as the structuring of differentiation strategies, while Rugarcía (1996) points out that total quality is evaluated in the results obtained and in the capacity to respond to the needs of society. Additionally, Criado-García and Vázquez-Sanchéz (1999) stress that total quality is a synonym of user satisfaction and service efficiency.

On the other hand, even in self-sustaining organizations marketing has become a differentiation strategy, according to Kotler and Armstrong (2003) it can be seen as a technique that organizations use as a
resource to offer goods and/or services as a result of society’s needs and wants in order to anticipate the requirements of consumers, which could result in a good alternative that aims to create long term relationships with users, increase market share and win students over by means of the service (Safiro, 2009).

2.2. Educational and services marketing in HEIs

For Manes (2005) and Solis-Hurtado (2004) the starting point of educational or university marketing is the investigation of the concerns of society and students, based on that investigation it is possible to design programs that benefit students and meet their expectations. On this topic, Pérez (2002) states that HEIs must be able to protect themselves against and adapt to market changes as well as grow compared to other institutions, while Mesa (2016) believes that the priority of HEIs is to educate students integrally and with social prestige for the job market.

According to Ceballos-Lozano, et al. (2012), educational marketing is about carrying out the basic administration functions in the internal and external analysis and conduct a situational analysis for the institution’s continuous improvement, in other words, implement a marketing plan for educational services that encourage the accomplishment of institutional goals. Boluda-Ivars (2014) states that true marketing applied to universities focuses on professors with motivators and training so that they can create long lasting experiences in students and parents, as well as become a communication tool besides social networks, advertising and other technological means and equipment.

As a complement to the development of quality educational marketing, it is necessary to take services marketing into account. This element is based on the needs stated in Maslow’s hierarchy of needs (1991) and it seeks creative solutions for the problems identified through a gap analysis; Christopher-Lovelock (2015) understands it as an organizational strategy that makes a difference when including complementary and support activities to basic services in order to increase the value of user experience. In this regard, Grande (2005) agrees with Lovelock when he states that marketing adapts to changes based on market needs, they suggest studying this field due the importance of services in an economy. On the other hand, it is also convenient to understand the protagonists that intervene in the strategy of business service. For Albrecht and Zamke (1988), people and systems are elements that revolve around the client, and it is the clients that will determine their positive or negative behavior after the purchase.

Therefore, Christopher-Lovelock (2015) suggests processes that will help learn more about the client, in the case of HEIs there are procedures that assess both the staff and the facilities, since they are in permanent contact with the user. This last author suggests a model of consumer behavior in services that helps understand the needs and purchase decisions in a more accurate manner. The model encompasses three stages: pre purchase, service encounter and post purchase. They must be understood altogether so as to create satisfied users (Christopher-Lovelock, 2015).

As a result, according to what is stated by Arrubla-Zapata (2013) and Christopher -Lovelock (2015), the author highlights that universities as a service organization should be concerned about establishing relationships with direct users and learning about their behavior in order to identify improvement opportunities, they should also learn about their selection characteristics and even anticipate their wants in order to create customer delight.

When discussing strategies, it is impossible not to consider innovation and improvement. No matter where these two characteristics are applied and besides being university
quality standards, they become alternatives used to improve services when assessing the experience of the people who are involved. Universities make sense of this by endowing themselves with technology and differentiating processes; until recently higher education was considered a consortium where only teaching and some investigation mattered. Nowadays, it considers students as an active part of all its processes (Lara-Navarra & Gros-Salvat, 2009).

In this same context, Gumbau (2006) states that an effective university system has the ability to work in accordance with the people who make it up, it is capable of recognizing aspects that highlight its work and through the use of adequate tools it can adapt to the challenges of the student market. This author explains that nowadays the aim is not to satisfy users but to provide them with the largest amount of conveniences to obtain their delight.

2.3. Quality management in Ecuadorian universities

Before reviewing quality management, it is important to clarify its concept since sometimes it can be complicated to understand. Its definition depends on the industry and the good or the service we are dealing with, it can also have several viewpoints. However, most definitions coincide by stating that quality focuses on satisfying consumer needs and consequently meeting their expectations. In this regard, it can be inferred that nowadays quality encompasses the entire business and not only the product or the service, this new model results in a business - user relationship. For many organizations, rendering high level services today means a real competitive advantage that generates direct marketing, more specifically word of mouth marketing (Ibarra & Casas, 2015).

In the academic field, quality is a very sensitive element and therefore in recent years Ecuadorian officials have demonstrated a huge interest to enhance and evaluate it. This work makes sense when considering the proposals stated in the National Plan for Good Living since changes in the country’s production model demands changes in many fields, one of them being education. Therefore, in accordance with (Acosta & Acosta, 2016), accreditation is a means to find out if higher education is responding to the demands presented in the Government’s development plans; therefore it is defined as a process of control and guarantee of higher education, which is the result of good self-assessment and an external evaluation that recognizes minimal standards of educational excellence.

Segers and Dochy (1996) on the other hand, state that the existence of quality in higher education institutions as well as in undergraduate programs, calls for well-defined purposes, evaluation processes and outputs that fulfil teaching - learning objectives imposed by the program. Thus, quality assurance processes should have three phases: monitoring, measurement and improvement.

This quality indicator intends to analyze the existing gap between the way the educational service is provided and the optimal one in its sector. (Acosta & Acosta, 2016) and the authors of this paper underline in their study that there is not a singular evaluation model, since it will vary according to the context it is in. Additionally, it considers students, alumni, professors, the productive sector and social organizations as participants of the entire evaluation process.

In the research conducted by (Acosta & Acosta, 2016) there is a very suitable proposal for the evaluation of undergraduate programs. However, despite the fact that many of the models that were analyzed as a basis of the study included a satisfaction analysis of active students, the proposal applied in Ecuador neglected this aspect and only focused on the satisfaction study of university graduates. On the other hand,
Montenegro & Flores (2015) suggested a model which along with the use of Communication and Information Technologies, can contribute to the process of continuous improvement of education in Ecuador. Interestingly, there are more and more tools, but they all focus on the same objective, strengthen the academic sector in the country.

2.4. The evolution of the university sector in the city of Cuenca

For more than a century, the economic and cultural progress in the city of Cuenca, according to Revista Avanza (2011) has been based on the development of scientific knowledge through universities. The first university in the city opened in 1867 and between 1867 and 2012 around fourteen HEIs such as Universities and technological, pedagogical and technical Institutes, including a conservatory, were opened.

Currently, SENESCYT (2013) (Secretariat of Higher Education, Science, Technology and Innovation) states that there are four universities that provide on campus, distance, and even virtual education in a wide range of undergraduate programs and with a significant number of students. In 2015, according to the Departments of Accountability and Transparency of the different universities, there were 44,178 students enrolled. It is also worth stating that because of its history and culture, in 2011 Cuenca was declared a "University City" by the Plenary Session of the Legislative Assembly (National Assembly, 2011).

In 2010, the law to close HEIs that did not meet the required standards and had multiple gaps in the quality of academic service was approved. The Organic Law of Higher Education or LOES (for its acronym in Spanish), through the Board of Evaluation, Accreditation and Assurance of Quality in Higher Education, CEAACES (for its acronym in Spanish), requested that these institutions be closed. In 2012, HEIs in Cuenca were part of this process which resulted in the permanent closure of two universities and a pedagogical institute, while up to the present date the remaining institutions are in the process of accreditation to improve their category (CEAACES 2016). There is no doubt that this quality assessment has made universities worry about providing a better service. However, there is no department in these universities that constantly monitors service quality.

On the other hand, SENESCYT (2015) (Secretariat of Higher Education, Science, Technology and Innovation) ensures that Higher Education in Ecuador has gained momentum in recent years, it presents a public expenditure as a percentage of GDP of 0.2% in 2006 and it moved up to 0.7% until 2015. Although many HEIs are nonprofit, due to their sustainability, it is still necessary to apply loyalty and marketing techniques that have revolutionized the market.

2.5. Models of quality assessment in university services

In order to identify the existing gaps between service expectations and the actual service that is received, it is necessary to consider the premise of Koenes (1996) who states that a punctual and reliable way of obtaining information is to consult the interest group. Below are some of the models used to manage quality in the educational field based on users’ level of satisfaction, the comparative table (Table 1) aims to identify the model that best suits the variables of the context under study.
### Table 1. Service Quality Evaluation Models

<table>
<thead>
<tr>
<th>MODELS</th>
<th>VARIABLES</th>
<th>AUTHOR</th>
<th>DEFICIENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUECA</td>
<td>Environment, Culture, Organizational architecture, Processes and Resources, Processes, People.</td>
<td>Blanco-Hernandez (2009)</td>
<td>It lacks a basic service variable focused on the student</td>
</tr>
<tr>
<td>SEUE</td>
<td>Basic services, Student services, life safety, Economic security, Emotional security, belonging to the institution and the group of students, work system, personal achievements, recognition of personal success, self fulfilment</td>
<td>Gento-Palacios &amp; Vivas-García (2003)</td>
<td></td>
</tr>
<tr>
<td>EFQM</td>
<td>Customer orientation, leadership and consistency of aims, orientation towards results, development, involvement and recognition of people, management by process and / or facts, development of partnerships, continuing process of learning, innovation and improvement</td>
<td>Fundación Europea para la Gestión de la Calidad (1991).</td>
<td>Complexity in its variables</td>
</tr>
<tr>
<td>HEDPERF-SERVPERF</td>
<td>Academic aspects, non-academic aspects, reliability and empathy</td>
<td>Rodríguez-Ponce, et al., (2011)</td>
<td>Limited variables</td>
</tr>
<tr>
<td>MODELO BASED ON PREVIOUS INVESTIGATIONS</td>
<td>Curriculum, training and ability for teaching teachers, methods of teaching and evaluation, level of student self fulfilment, support services, administrative services, favorable environment, infrastructure.</td>
<td>(Álvarez-Botello, Chaparro-Salinas, Reyes-Pérez 2014)</td>
<td></td>
</tr>
</tbody>
</table>

Source: The author

The SEUE and RUECA models were designed to assess students’ satisfaction levels in HEIs, the former allows a global and a sub dimensions assessment; it is a complete tool applied directly the student, while the latter has criteria and terminology exclusively for HEIs, its variables can by modified or extended according to the university’s characteristics; it is largely made up by the EFQM and Malcom Baldrige models and it responds to the needs of higher education. Despite being excellent
alternatives to measure service quality, the EFQM, HEDPERF - SERVPERF and the “based on investigations” models have deficiencies in the treatment of specialized variables, particularly in academia. They do not analyze all the factors that influence education, therefore the model that best suits the aims of this research according to the author’s opinion is the SEUE model. This model has been designed in accordance with Maslow’s hierarchy of needs (1991) avoiding ambiguities which favors the collection of information. It includes components of 5 models in order to learn the perception of student satisfaction, it considers elements of much interest which makes it multidimensional, it is a tool that has been evaluated, worked on and recommend by the International Network of Researchers.

3. Methodology

This research combines a descriptive and a multidimensional statistical analysis. The descriptive analysis demonstrates the frequencies and the percentages of the variables under study while the multidimensional statistical analysis is used to show the group classification of the people under study. Hierarchical grouping is the method used since it determines the groups of people as a result of their common characteristics. The factorial axes are the differentiation criteria that express the opposition of people’s answers.

The factorial analysis includes a classification graph that connects the aforementioned groups (Papapostolou & Stefos, 2013). The SPAD v.4.5 software was used for data analysis, the software was provided by the Faculty of Humanities of the University of the Aegean.

Structured surveys were used based on the SEUE model suggested by Gento-Palacios & Vivas-García (2003), which was adjusted with subdimensions taken from additional models mentioned above in order to have a complete instrument; these were constructed according to the Likert scale with five response possibilities ranging from 1 (totally unsatisfied) to 5 (totally satisfied) and it explores 96 questions.

The base model has 10 variables and 93 subdivisions where topics such as library processes, interest in solving student problems and management in internal processes were included. Table 2 shows the variables that make up the questionnaire.

<table>
<thead>
<tr>
<th>Table 2. Variables considered in the study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHARACTERISTICS OF THE TARGET</strong></td>
</tr>
<tr>
<td>Demographic variables:</td>
</tr>
<tr>
<td>All students, men and women from approximately 17 – 35 years of age</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>
Table 2. Variables considered in the study (continued)

<table>
<thead>
<tr>
<th>CHARACTERISTICS OF THE TARGET</th>
<th>STUDY VARIABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic variables: Universities located in the city of Cuenca. UPS (Universidad Politécnica Salesiana), UCACUE (Universidad Católica de Cuenca), UDA (Universidad del Azuay) and Universidad de Cuenca</td>
<td>Belonging to the institution and to the group of students: Inclusion programs with activities in and out of the classroom, participation in the development of projects, policies and institutional norms.</td>
</tr>
<tr>
<td>Work system: Curriculums of undergraduate programs, structuring of syllabus, processes of registration, admission, graduation, leveling courses, cultural and extra academic events. Teaching (professors master the contents, teaching and evaluation methods, tutorials and consultation, the application of the contents according to the country’s reality, incorporation of new technologies, attendance to class)</td>
<td></td>
</tr>
<tr>
<td>Personal Achievements: According to grades, skills and mastery of study techniques and intellectual work.</td>
<td></td>
</tr>
<tr>
<td>Recognition of personal success: The institution, officials, professors, students and social context</td>
<td></td>
</tr>
<tr>
<td>Self fulfilment: Ability to carry out activities related to the personal likes of students, freedom within the institution, autonomy in carrying out work, development of creativity and skills for professional performance.</td>
<td></td>
</tr>
</tbody>
</table>

Source: The author

A population of 44,178 students from the four participating universities were considered. The confidence level is 95% and the margin of error is 5%, the sample size is 381. The type of sampling used responds to the proportional stratification, the details are shown in table 3.

Table 3. Surveys to be carried out per university

<table>
<thead>
<tr>
<th>UNIVERSITY</th>
<th>STUDENTS ENROLLED IN 2015</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS</td>
<td>6,067</td>
<td>52</td>
</tr>
<tr>
<td>UCACUE</td>
<td>14,314</td>
<td>123</td>
</tr>
<tr>
<td>UDA</td>
<td>6,687</td>
<td>58</td>
</tr>
<tr>
<td>Universidad de Cuenca</td>
<td>17,110</td>
<td>148</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>381</strong></td>
</tr>
</tbody>
</table>

Source: The author

4. Results & discussion

4.1. Descriptive analysis

The table 4 presents the total results of the descriptive statistical parameters regarding the measures of central tendency and the percentages collected in each of the variables that indicate the levels of satisfaction in this research.

Based on the findings, it is evident that the levels of satisfaction of students from the four universities are admissible, where the average grade indicates satisfaction in all cases. We noticed that 50% of students exceed 80% of satisfaction in the last 5 variables, meanwhile 50% of additional students from the four universities responded below the median.

Based on the overall results, the average performance of HEIs per variables is indicated in table 5, considering the items explored in each one.
Table 4. Descriptive statistics on overall results

<table>
<thead>
<tr>
<th>UNIVERSITIES</th>
<th>NUMBER OF SURVEYS</th>
<th>MEASURE OF CENTRAL TENDENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Measure</td>
</tr>
<tr>
<td>UDA</td>
<td>58</td>
<td>3,59</td>
</tr>
<tr>
<td>Universidad de Cuenca</td>
<td>123</td>
<td>3,3</td>
</tr>
<tr>
<td>UPS</td>
<td>52</td>
<td>3,58</td>
</tr>
<tr>
<td>UCACUE</td>
<td>148</td>
<td>3,15</td>
</tr>
</tbody>
</table>

Source: The author

Table 5. Levels of satisfaction per variables (average of the four universities)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>TOTALLY DISSATISFIED</th>
<th>NOT VERY SATISFIED</th>
<th>SATISFIED</th>
<th>VERY SATISFIED</th>
<th>EXTREMELY SATISFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic conditions of infrastructure</td>
<td>13,27%</td>
<td>20%</td>
<td>28,65%</td>
<td>22,15%</td>
<td>15,93%</td>
</tr>
<tr>
<td>Student services</td>
<td>11,87%</td>
<td>19,37%</td>
<td>31,84%</td>
<td>22,44%</td>
<td>14,48%</td>
</tr>
<tr>
<td>Life safety</td>
<td>11,83%</td>
<td>16,19%</td>
<td>32%</td>
<td>24,85%</td>
<td>15,00%</td>
</tr>
<tr>
<td>Economic security</td>
<td>11,71%</td>
<td>21,14%</td>
<td>35,00%</td>
<td>33,00%</td>
<td>11,00%</td>
</tr>
<tr>
<td>Emotional security</td>
<td>7,24%</td>
<td>14,25%</td>
<td>30,13%</td>
<td>28,88%</td>
<td>19,50%</td>
</tr>
<tr>
<td>Belonging to the institution and group of students</td>
<td>4,30%</td>
<td>13,60%</td>
<td>31%</td>
<td>30,80%</td>
<td>20,30%</td>
</tr>
<tr>
<td>Work systems</td>
<td>4,80%</td>
<td>14,55%</td>
<td>29,50%</td>
<td>32,35%</td>
<td>18,80%</td>
</tr>
<tr>
<td>Personal achievements</td>
<td>2,67%</td>
<td>9,80%</td>
<td>29%</td>
<td>36,56%</td>
<td>21,77%</td>
</tr>
<tr>
<td>Recognition of success</td>
<td>3,80%</td>
<td>15,20%</td>
<td>33,80%</td>
<td>28,80%</td>
<td>18,40%</td>
</tr>
<tr>
<td>Self fulfilment</td>
<td>2,50%</td>
<td>9,33%</td>
<td>25,83%</td>
<td>34,34%</td>
<td>28,00%</td>
</tr>
</tbody>
</table>

Source: The author

Despite there not being a significant percentage of dissatisfaction in the evaluation of service quality in HEIs, further efforts are needed to contribute to the improvement of users’ satisfaction in order to create a long term personal interaction between the university and the student, which will guarantee loyalty, recommendations and preference over competition.

4.2. Hierarchical analysis

The hierarchical analysis is made up of 381 people divided into six groups which are shown in Figure 1.

First group (103 people, 27,03% of the sample).

Students from the first group are quite satisfied with the available printed and audiovisual materials, the curriculum of the undergraduate program, university officials, the consideration and respect for their ideas and proposals in the classroom, the teachers and the practical training they receive.

Second group (79 people, 20,73% of the sample)

Students from the second group are satisfied with the students of their group, the recreational areas, their results or grades, the possibility of doing things they want to do and is within their capabilities, and with the admissions and registration process.
Students from the third group, as opposed to students from the first group, are not very satisfied with the teachers, the students from their group, the available printed and audiovisual materials, the curriculum of the undergraduate program, the other students from their university and university officials.

Fourth group (14 people, 3.67% of the sample)

Students from the fourth group are totally dissatisfied with the available printed and audiovisual materials, the representation of bodies in the institution, the teaching methodology, communication with teachers in the classroom, the level of demand and the program’s curriculum.

Fifth group (68 people, 17.85% of the sample)

Students from the fifth group are very satisfied with the freedom of the university, the development of their creativity, the level of demand, classmates, the autonomy they have to carry out their work and the social context for being university students.

Sixth group (34 people, 8.92% of the sample)

Students from the sixth group are very satisfied regarding the involvement with the national and regional context, the officials, department directors, the participation in policies and institutional projects, the administrative staff and communication for graduation processes and events.

The differences between these groups are shown in Figure 2, where the graph on the Correlations Analysis (factorial level 1x2) presents the centroids of the six groups in the two axes. It also defines the differences and the similarities between the people in the six groups.

The aim of this paper is to provide an additional element for the higher education evaluation models currently being applied in Ecuador. It is imperative to assure educational quality by considering the “satisfaction of active students” from their own perspective and not only based on the criteria which interests institutions regarding students. The evaluation models of educational service quality are concerned with the selection and entry procedures, size of the enrollment, capacity of the undergraduate programs, mobility, extracurricular activities, performance level according to the academic project, and others; meanwhile they neglect the real viewpoint of students.

According to (Segers & Dochy, 1996) that a process of quality assurance should have three stages: monitoring, measurement and improvement activities, it would be necessary to include a sub-model that deepens the third stage from the student's point of view. In accordance with the above, the results of this new element in the model could be the source of improvement criteria or recommendations provided by students to improve both user satisfaction rates and to cooperate with the improvement of service quality.
Not much has been written by regulatory bodies about improvements made to the models that have been applied in recent years and even less on the obtained results. However, this research demonstrates the need to learn about the opinions of users, which creates opportunities for further research, because when providing the system with new approaches the quality indicators can improve in a shorter period of time than was planned.

5. Conclusions

This study investigated the service quality provided by Higher Education Institutions by applying a descriptive and multidimensional statistical analysis in order to show the frequencies and percentages of the variables as well as the group classification of the people under study. The hierarchical grouping method was used, it determines the groups of people according to their common characteristics (Stefos et al, 2011).

The most significant results of the descriptive analysis, which were also confirmed by the factorial analysis, is that at first they show that in all cases the percentage of students’ satisfaction surpasses 65%. As for the basic conditions of infrastructure, the percentage of satisfaction is 66,73%, for student services it is 68,76%, for life safety 71,85%, for economic security 79%, for emotional security 78,51%, for belonging to the institution and group of students 82,10%, for the work system 80,65%, for personal achievements 87,33%, for recognition to success 81% and finally for satisfaction for self fulfilment 88,17%. A minority group of people (3,67%) is totally dissatisfied with the sense of belonging to the institution and the class, as well as with the teaching-learning process.

Regarding the evaluation on service quality, this research provides users’ viewpoints on the service, which could represent an additional element in the evaluation and quality assurance models applied in Ecuador by deepening the criteria which is considered a priority by users when assessing services. While the service quality evaluation models revised in this document provide important aspects that strengthen the system, the viewpoint of users themselves can strategically improve indicators in shorter periods of time than was planned.

Quality management, despite the fact that it depends on the industry, product or service, always seeks the satisfaction of the users. In this sense, it can be deduced that the quality nowadays encompasses the entire company, leaving to prioritize only the product or...
service, this new model results in a company-user relationship. As mentioned above, the provision of high levels of services means for many organizations a competitive advantage that makes the loyalty of users.

References:


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<table>
<thead>
<tr>
<th>Adriana Vallejo</th>
<th>Efthathios Stefos</th>
<th>Adrián Narváez</th>
</tr>
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<td>Universidad Politécnica Salesiana, Calle Vieja 12-30 y Elia Liut, Cuenca Ecuador <a href="mailto:avallejo@ups.edu.ec">avallejo@ups.edu.ec</a></td>
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