Characteristics of educational services in the virtual environment

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Abstract

In the last decades the continuous development of virtual technologies triggered the growing need for flexibility of the educational services for students. Nowadays, a great number of universities develop online courses and educational programs in order to offer supplementary options for their students. The present paper presents the changes encountered in the more and more sophisticated needs of consumers of educational services and a review of various online educational services offered by universities, which ensure the students with great educational experiences and the premises for a successful career. Therefore, all universities should acknowledge these changes and should constantly improve the quality of their offline and online educational services.

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1. Introduction

The continuous development of the virtual environment makes educational system more flexible for students due to the fact that more and more universities develop online courses and educational programs aimed at offering new opportunities for existing students and that attract new students. The improvement of educational system quality is integrated in discussions of universities management in every country. Therefore, universities find themselves in strong competition and try to differentiate themselves in the eyes of their customers. The best way to do that is to offer various and high quality services which lead to students’ satisfaction and loyalty, promotion and business development.

2. Literature review on educational services quality

Higher education quality is a multifaceted concept and a clear definition of quality has not yet been established (Harvey & Green, 1993). Bitner et al. (1994) admits that in the case of services the nature of interpersonal relations between client and service provider often affects satisfaction. Guolla (1999) considers that positive perceptions on service quality may lead to student satisfaction and, therefore, to an increased number of students. In consequence, the general consensus on the best way to define and measure service quality has not yet been reached (Clewes,
Each actor of higher education (the students, the government, the professors) has a different vision of quality according to their specific needs. Voss et al. (2007) believe that the new digital environment will determine universities to closely monitor the quality of educational services they provide in order to keep their current students and to attract new students. Students’ expectations represent a valuable source of information. They may have unrealistic expectations about their experience in the university, and if higher education organizations clearly understand these expectations, they might guide their efforts towards a more realistic level. For example, they might inform students what to expect from their professors and knowing the students’ expectations might help lecturers to conceive their syllabuses.

Lee (2010) reveals the critical role of service quality perception in students’ satisfaction. The studies reveal a growth in the students’ online education acceptance, as well as in their online education satisfaction, as long as they have a positive perception of educational service quality. Universities and higher education institutions confronted with problems regarding educational services are trying to find new methods and high quality strategies that give them the possibility to fulfill their purposes (Foroughi Abari et al., 2011).

Fariba & Masomeh (2011) believe that development of higher education quality is a very important aspect which is part of management and marketing of any university in the world. Universities, by being important organizations in developing human resources experts play an important role in sustainable development in the globalization era. Therefore, the conceptualization and the qualitative and quantitative research of new and modern educational opportunities are extremely important.

Concerning the technological era we live in, Danjuma & Rasli (2012) consider that all this need of modernizing also appears because many fields which are connected with the educational system have developed lately. Thus, they triggered changes in students’ needs and expectations. In this case, universities try to conceive marketing campaign that are aimed at attracting students through unconventional methods, change in classical structures and introducing of new disciplines. Some examples are online courses, the fact that students may choose their disciplines online or simply introducing new courses in fields such as medical engineering, biotechnology, nanotechnology etc. that cannot be found in other competing universities. By providing all these for their students, the university avoids creating a gap between their offline and online educational offer and the students’ demand.

2.1. Students’ expectations and satisfaction

Zeithaml et al. (1993) distinguish between three types of service expectations: desired service, sufficient service and predicted service. Clients have a desired service level that they hope to receive and which comprises what might be and what should be fulfilled. They have also an acceptable service level once they acknowledge that a service cannot always reach the desired level, i.e. the sufficient service. Between these two levels of service there is a tolerance zone that clients are willing to accept. And finally clients have a predicted service level, which represents the service level that the company will fulfil. Zeithaml also evinces the fact that wanted services are more stable and less dependent of the service’s particular situation than other types of expectations.

Hill (1995) believes that general student expectations and their expectations concerning higher education educational services such as the quality of the lectures, teaching methods and especially courses syllabuses are quite stable in time. Telford & Masson (2005) have shown the fact that perceived quality of educational services depends on students’ expectations and values. Voss et al. (2007) indicates more stages that indicate the expectations’ and values’ positive impact on variables such as: students’ participation, the clarity of role and their motivation to participate in courses.

Cetină et al. (2009) argue that factors which influence clients’ expectations are: verbal communications, personal exigencies, past experience and external influences. In fact, exceeding customer expectations is the surprise element and the best opportunity to surprise the customer is during the service delivery process, when the service provider meets the customer, in our case, during the offline and online educational process. Foroughi Abari et al. (2011) believe that specialists who have particularly researched ways to evaluate service quality have been particularly interested by the fact that clients’ expectations have been fulfilled, but the correspondence between offered services and clients’ expectations has been only considered as criterion.
The globalization triggered great changes at the social level and therefore there appeared this innovation need in services provided by organizations, as well as by educational institutions. More clearly, innovation in educational services offered by universities has as purposes to attract new students and to satisfy the existing students in the globalization context, which has changed students’ needs at the same time with the technologies’ modernization at great speed (Danjuma & Rasli, 2012).

As far as students’ expectations regarding educational services are concerned, Ibrahim et al. (2012) believe that factors which influence consumer expectations are relevant in the context of competences development. There is great competition to attract students due to the growing number of educational institutions. Therefore, the quality of services delivered by each educational institution becomes essential in the fight for market survival.

2.2. Scales to measure educational services

Hansen (2000) in Voss et al. (2007) developed a valid instrument to evaluate study modules for higher education. For example, the instructional quality of the professor is the main influence on the modules’ quality perception. Following the same line of thought, Hill (2003) considers the quality of the professor as being one of the most important factors that influence preparation of higher education. Ibrahim et al. (2012) argue that service quality is difficult to evaluate due to their intangible character. In addition, educational services quality is unique as compared to other sectors.

In time, various scales to measure service quality for educational services have been developed, as evinced in table 1.

<table>
<thead>
<tr>
<th>Measurement scale</th>
<th>Quality dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVQUAL</td>
<td>Tangibility, trust, responsibility, safety, empathy</td>
</tr>
<tr>
<td>SERVPERF</td>
<td>Tangibility, trust, responsibility, safety, empathy</td>
</tr>
<tr>
<td>HEdPERF</td>
<td>Non-academic aspects, academic aspects, reputation, access, comprehension</td>
</tr>
<tr>
<td>EduQUAL</td>
<td>Learning results, reaction capacity, physical endowment, personality, development and university professors</td>
</tr>
<tr>
<td>SQM-HEI</td>
<td>Teaching methodology, environmental change in studio factor, taken disciplinary measure, set activities, and in general services quality evaluation and of satisfaction level</td>
</tr>
<tr>
<td>EDUSERVE</td>
<td>Empathy, school facilities, faith, responsibility and discipline insurance</td>
</tr>
</tbody>
</table>


The first two measurement scales, i.e. SERVQUAL and SERVPERF are generic measurement scales applied in all sectors. Both instruments have been applied in the educational sector with modifications of elements done in order to match the situation and the context of the study. The other scales have been developed particularly for the educational sector.

According to Zeithaml, Bitner and Gremler (2013), the relationship and the interconnectedness between customer satisfaction and service quality are evinced by figure 1.

![Figure 1. Customer Perceptions of Quality and Customer Satisfaction](image-url)
HEdPERF has emerged as a measurement instrument of services quality which comprises specific determinants of services quality for the higher education sector. The discoveries have confirmed the fact that student perceptions regarding services quality may be considered as having a structure consisting of:

- Non-academic aspects;
- Academic aspects;
- Reputation;
- Access;
- Comprehension.

EduQUAL has been developed to meet the technical educational system. SQM-HEI has been developed to measure service quality in higher education institutions in India. EDUSERVE is a scale issued as result of the SERVQUAL scale and of the conclusions of the focus group tested in the context of professor’s expectations and perceptions from secondary schools in Mauritius. These instruments are empirically tested by considering academic and non-academic aspects.

Even if each instrument proves the difference between measured aspects, we may conclude that all instruments comprise important elements for students, university professors, facilities and other services (Ibrahim et al., 2012).

Rovai & Downey (2010) argued that quality management, facilities development capacity, online courses design and teaching methods have been key factors in determining failure or success of online programs in nowadays competitive environment.

One of the main preoccupations regarding online educational system has been the absence of the direct interaction with the professor and other students. In this sense, numerous organizations have developed principles, norms and indicators to respond to this issue. The American Higher Education Institute has created 24 indicators, which cover the following 7 aspects:

- Institutional support;
- Student support;
- Faculty support;
- Course development method;
- Course structure;
- Teaching / learning;
- Evaluations and objectives to be met.

These 7 aspects are considered essential to ensure online education excellence.

On the other hand, its international character requests the satisfaction of students from different countries, which speak different languages and whose options are most probably influenced by local culture (Lee, 2010).

Service innovation is a combination of innovations done in technology, society, organization and demand. Therefore, by adopting these innovations in higher education universities remain competitive and improve their information delivery process. This leads to the maximization of the direct consumer satisfaction and subsequently to the growth of competition level and market position. In order to respond to the continuous change of the market needs and requests, conventional universities aim at attracting as many students as possible, which may not be interested only by the traditional education methods, but also by online education (Danjuma & Rasli, 2012).

3. Conclusions and recommendations

Educational service quality is fundamental for the development of any country due to the fact that it is the essence to create competent people for the workforce, who, with their capabilities and good training, create value at their workplace and for their country. Universities have thus the responsibility to provide quality educational services for their students, who need an environment suitable for a good study atmosphere.
In addition, the global economy is in a period of fierce dynamism that greatly impacts the service sector, which is in fact increasing its importance with every moment. Higher education institutions can thus have a significant influence on the quality of life, which may be improved by making innovations and by changing the paradigm from traditional educational services to online services that enhance general satisfaction.

Therefore, further research on the improvements that can be made in the higher education system and on new teaching methods and models are extremely important.

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