

QUALITY IN HIGHER EDUCATION – WHICH DIMENSIONS CAN BE IDENTIFIED FROM THE RESPONSES OF STUDENTS OF ECONOMICS

Mirela Mabić, Ph.D.¹

¹Faculty of Economics, University of Mostar, Bosnia and Herzegovina,
mirela.mabic@tel.net.ba; mirela.mabic@gmail.com

Abstract

Detailed consideration of quality in higher education requires identifying the primary users of service in higher education because the educational process involves many stakeholders - students, parents, teachers, government, enterprise... It is generally accepted that students are the primary customers because they are involved in different roles: they are the product of the process, the internal customer for campus facilities, the labourers of the learning process and the internal customer of the delivery of the course material. So, it becomes necessary to identify the determinants of service quality from the stand point of students being the primary customer. Developing a service quality model to measure the student's perception on quality is a very complex and tedious task because the service quality dimensions cover many areas. Naturally, defining the dimensions of quality in higher education is based on the dimensions of service quality in other areas. Exploring quality in different areas, authors state different dimensions, i.e. they explore different aspects of users' satisfaction with some services. Different dimensions of service quality are used for different industries but there are some similarities between them. But, researchers agree that there is no single dimension which can be applicable for all the service sectors.

In the literature, one can find different articles that deliver results of identifying dimensions of quality in higher education based on research conducted in different regions of the world, but literature is scarce when analyzing the research conducted in the area of B&H. This prompted the implementation of this research. Furthermore, each state has a specific educational system and it is necessary, to continu-

ously explore and upgrade the models of service quality in higher education and its dimensions of quality.

The aim was to offer students as many as possible statements about the quality of the educational process in order to be able to identify the relevant dimensions of service quality in higher education.

JEL Classification: I23

Keywords: dimension of quality, higher education, quality, students, stakeholders

INTRODUCTION OR QUALITY IN HIGHER EDUCATION

The main responsibility of universities is to provide and educate expert human resources, create new knowledge through conducting research as well as increase and disseminate knowledge. Consequently, this has resulted in the development of higher education and rapid increase in a number of universities, majors and levels of study as well as number of students (Farastkhah & Kebriyaie, 1998). The mentioned competition significantly promotes the signing of the Bologna Declaration - a declaration on harmonization of the European higher education area.

Signing of these declarations has set a new scale of success which all higher education institutions must reach in order to survive in the market and thereby achieve excellence, which is inextricably linked with the quality. That imposes the need for achievement of quality, development of continuous monitoring, measurement, management, and enhancement...

As it is quite difficult and complicated to give a single definition of quality, it is also very difficult to unambiguously define the quality of education, regardless of the level of education observed (primary, secondary, higher education) [Houston, 2008, Voss, et al., 2007]. The situation is further complicated when one considers the fact that the educational process involved a multitude of directly / indirectly, more / less involved stakeholders (students, parents, teachers, government, companies ...). Any interested party experiences quality in their own way, valuing the different phases and components of the education process (input, process transformation, output), and everything under the influence of their role in the process and their expectations, desires and goals.

Besides the above mentioned reasons, the inability of a single definition of quality in higher education is the result of a number of other facts (Mabić, 2011):

- Higher education has been developed in varying degrees and at different times in different countries.
- A growing number of higher education institutions as the education sector is slowly turning into a market with strong competition
- Institutions of higher education are not the purpose for themselves.
- Education is a service.
- The quality of education is not necessarily associated with the process of learning itself (acquisition of knowledge and skills) and its results.
- Education includes: input, process, output, mission, vision, goals ...
- Due to the strengthening of multidisciplinary aspirations clear boundaries between plans and programs are repealed.

Dimension of quality in the higher education

Detailed consideration of quality in higher education, at the beginning, requires identifying the primary users of service in higher education. Namely, the educational process involves many stakeholders - students, parents, teachers, government, enterprise... Students are the most numerous stakeholders and are involved in different roles: they are the product of the process, the internal customer for campus facilities, the labourers of the learning process and the internal customer of the delivery of the course material. (Sirvanci, 1996). However, it is generally accepted that students are the primary customers and other prospective customers are such as alumni, parents, employers, employee, government, industry and society may be considered secondary customers (Ramaiyah et al., 2007).

Consequently, it becomes necessary to identify the determinants of service quality from the stand point of students being the primary customer. Developing a service quality model to measure the student's perception on quality is a very complex and tedious task because the service quality dimensions cover many areas and therefore, and it is not possible to cover all (Hadikoemoro, 2002).

Naturally, defining the dimensions of quality in higher education is based on the dimensions of service quality in other areas. Exploring quality in different areas, authors state different dimensions, i.e. they explore different aspects of users' satisfaction with some services. Different dimensions of service quality are used for

different industries but there are some similarities between them (Lagrosen et al., 2004). Also, researchers agree that there is no single dimension which can be applicable for all the service sectors (Carman, 1990; Brown et al 1993; Cronin and Taylor, 1994). So, in the literature the most frequently mentioned authors and their dimensions, as for higher education, as in other sectors, are:

- Parasuraman et al (1991) initially developed ten dimensions (research in 1985: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer, tangibles) and later reduced it into five dimensions (research in 1988: tangibles, reliability, responsiveness, assurance, empathy).
- In paper in 1988 Gronroos had identified six criteria of good perceived service quality: professionalism and skill, attitudes and behaviour, access and flexibility, reliability and trustworthiness, recovery, reputation and credibility, and in paper in 1990 he stated that the quality dimensions can be classified into three groups: technical quality, functional quality and corporate image.
- Lehtinen and Lehtinen (1991) also identified three areas of the quality: physical quality, interactive quality and corporate quality.
- According to Carney (1994) variables of college's image are: student qualification (academic), student qualities (personal), faculty-student interaction, quality instruction (faculty), variety of courses, academic reputation, class size, career preparation, athletic programs, student activities (social life), community service, facilities and equipment, location, physical appearance (campus), on campus residence, friendly, caring atmosphere, religious atmosphere, safe campus, cost/financial aid.
- Athiyaman (1997) used eight characteristics to examine university education services: teaching students' well, availability of staff for student consultation, library services, computing facilities, recreational facilities, class sizes, level and difficulty of subject content and student workload.
- Lee et al (2000) explained that the two of the total quality experience variables 'overall impression of the school' and 'overall impression of the education quality' are the determinant variables in predicting the overall satisfaction.
- Brooks (2005) recommended the following criteria to assess a quality of a university: reputation, faculty research productivity, and student educational

experiences and outcomes which include program characteristics, program effectiveness, student satisfaction, student outcome.

- Sangeeta et al (2004) noted five factors/constructs: competence, attitude, content, delivery, reliability.
- In his empirical research, Hadikoemoro (2002) identified following five dimensions: academic services, readiness and attentiveness, fair and impartial, tangible and general attitudes.
- Owlia and Aspinwall (1996), recommended six dimensions as follows: tangibles, competence, attitude, content, delivery and reliability.

Analyzing the listed dimensions, authors have come to the following conclusions (Ramaiyah et al., 2007):

1. There are significant similarities and also differences in the dimensions of service quality developed and used by various researchers.
2. Each of the developed dimensions is unique, therefore that supports the hypothesis that there are no single set of dimension of service quality which are applicable and suitable for all types of service quality research.
3. Service quality dimension varies according to customers, research objectives, institution, situation, environment and time.
4. All the chosen dimensions for each of the studies are tailor made to meet different customers' perceptions and expectations
5. Items used to explain each dimension varies according to research objective and customer group.
6. All dimensions used are acceptable and correct with qualitative and quantitative justifications.
7. None of the dimensions are applicable for all types of service quality research without making necessary modifications.
8. The best way to identify the dimensions of service quality is by asking the customers.
9. It is not possible to study all the dimensions of service quality under one survey.

Differences in the models and their dimensions are the result of:

- a variety of purposes and reasons for conceiving models and measurements of attitudes,
- different numbers and types of dimensions measured by some model,
- varying degrees of the scale used in the measurement,
- measurements of various objects - expected / perceived quality,
- variety of mathematical and statistical methods used to validate the placed model.

These items are essential modifications of existing models in use in different areas. This state of the literature itself suggests that it is impossible to create a uniform model of service quality which could be uniformly applied in all sectors, but it is necessary to continue with continuous research in order to improve existing and develop new models (Ladhari, 2008; Martínez & Martínez, 2010; Seth et al., 2005; Srikanthan & Dalrymple, 2002; Mabić, 2011).

EMPIRICAL RESEARCH

Objective of the research

In the literature, one can find different articles that deliver results of identifying dimensions of quality in higher education based on research conducted in different regions of the world, but literature is scarce when analyzing the research conducted in the area of B&H.

The above mentioned prompted the implementation of this research. Furthermore, each state has a specific educational system and it is necessary, to continuously explore and upgrade the models of service quality in higher education and its dimensions of quality.

The aim was to offer students as many as possible statements about the quality of the educational process in order to be able to identify the relevant dimensions of service quality in higher education.

Empirical research

Empirical research was conducted among students of the undergraduate and the graduate studies at the Faculty of Economics, University of Mostar during 2011. 177 of randomly selected students participated in the research.

The original questionnaire was used. The first part of the questionnaire consisted of questions about gender, year of study and the achieved grades; the second consisted of 59 items related to the teaching staff (expertise, availability, productivity), teaching (atmosphere, convenience, modernity), information and communication technology (communication, education), curriculum (modernity, mobility, adaptability), library (working hours, equipment, modernity), professional practice, scientific research, knowledge, infrastructure, time organizing classes and exams, office hours, sharing, extracurricular activities, administrative staff.

All the items are marked from 1 to 5 (Likert scale of 5 degrees with meanings: 1 - cannot agree, 2 - more disagree than agree, 3 - neither disagree nor agree, 4 - agree more than not agree, 5 - strongly agree).

Data processing is done in the statistical program SPSS 17.0 by using multivariate statistics (factor analysis).

A total of 177 questionnaires were returned and found to be useful, which represents 79.1% of response rate.

Characteristics of the sample:

- Distribution according to the year of the study: 37.9% the third year, 28.2% in the fourth year and 33.9% the first year of graduate study,
- Distribution according to the gender: 34.5% men, 65.5% women,
- Distribution according to the grade in the index (which is the most frequent grade) 27.7% sufficient (2), 55.9% good (3), 11.9% very good (4), 4.5% excellent (5).

RESULTS

Initially, the suitability of the data for the use of factor analysis was tested. Significant result of Bartlett's test of sphericity ($\chi^2=6932.062$; $p=0.000$) is a clear indication of suitability of factor analysis. The Kaiser-Meyer-Olkin measure is a sign for adequacy for factor analysis ($KMO=0.872$).

After the implementation of the factor analysis, it was found that, according to the respondents, the claims can be grouped into 12 latent factors. The number of claims per factor, Cronbach's α coefficient for each latent factor and claims included in each factor are shown in Table 1.

Table 1.

Factor	Name	N	Cronbach's α
F1	Administrative staff	10	0,958
F2	Curriculum	6	0,729
F3	Accessibility of the teaching staff	6	0,844
F4	Physical Environment - interior	6	0,862
F5	Involvement in research	5	0,809
F6	Library	3	0,871
F7	Accompanying activities	4	0,782
F8	Classes - Lectures	4	0,702
F9	Informed by the teaching staff	3	0,795
F10	Convenience of lectures	2	0,797
F11	The competence of the teaching staff	2	0,770
F12	Time management	2	0,628

Eight items did not enter into any one of latent factor so, in further analysis, they should be analyze separately. The Cronbach's α value of twelve factors ranged from 0.628 to 0.958 indicates that the scales are internally consistent and reliable.

Comparison of these factors with the factors set forth in the preamble, which were given by other authors, shows many similarities although it is, numerically, found significantly more factors. Since students are the primary customer in higher education sector the study has concentrated on student customer only, but it is identified that education sector has other potential customers as a part of whole education process who must be satisfied.

For continuing the analysis it is necessary to expand the sample, primarily from the perspective of students (to include students with different profiles) and structure the questionnaire - four parts with their claims that will be used to isolate the latent factors for each part - teaching staff, administrative staff, teaching, supporting educational and organizational activities.

CONCLUSION

Presented results of the study only confirm the state of the literature - the quality is a complex concept and it is very difficult to define it precisely. It is viewed from the different points of view and a lot of factors influence on it. Therefore, as it is presented in the introductory part, analysing and measuring of service quality in higher education has resulted and will result in a multitude of dimensions. Reasons for that are many, but two are the most important: 1) different stakeholders of the educational processes that have different needs, desires, goals and who must be satisfied 2) the duality of educational services - teaching process and administrative services. Even when we add the features that arise from scientific fields that are applicable to individual colleges, the story becomes significantly complicated. Therefore, there is a need for continuous researching, monitoring and improving the quality of the educational process. Accordingly, this research, also, requires to be continued. In addition, except the adjustment of the questionnaire, the next research should also include students from other faculties, as well as other stakeholders, primarily academicians, supporting staff and administration staff, because they are in a continuous and direct communication with students.

REFERENCES

1. Athiyaman, A. (1997). Linking student satisfaction and service quality perceptions: The case of university education, *European Journal of Marketing*, 31(7/8), 528-540
2. Brooks, R.L. (2005). Measuring University Quality. *Review of Higher Education*, 29(1), 1-21
3. Brown, T.J., Churchill Jr, G.A., Peter, J.P. (1993). Research Note: Improving the Measurement of Service Quality. *Journal of Retailing*, 69(1), 127-139
4. Carman, J. M. (1990). Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions. *Journal of Retailing*, 66(1), 33-55
5. Carney, R. (1994). Building an Image. Paper presented at the Proceedings Symposium for the Marketing of Higher Education, New Orleans, Louisiana: American Marketing Association.
6. Cronin Jr, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations, *Journal of Marketing*, 58(1), 125-131
7. Farastkhah M, Kebriyaie A (1998). Higher education in the 21st century, *Higher Educ. Plan. Ann.* 2(15), 81-104

8. Gronroos, C. (1988). Service Quality: The Six Criteria Of Good Perceived Service, *Review of Business*, 9(3), 10-13
9. Gronroos, C. (1990). *Service Management and Marketing*: Lexington, MA, Lexington Books.
10. Hadikoemoro, S. (2002). A comparison of public and private university students' expectations and perceptions of service quality in Jakarta, Indonesia. Unpublished D.B.A., Nova Southeastern University, United States - Florida.
11. Houston, D. (2008). Rethinking quality and improvement in higher education, *Quality Assurance in Education*, 16(1), 61-79
12. Ladhari, R. (2008). Alternative measures of service quality: a review, *Managing Service Quality*, 18(1), 65-86
13. Lagrosen, S., Roxana, S.-H., Markus, L. (2004). Examination of the dimensions of quality in higher education, *Quality Assurance in Education*, 12(2), 61-69
14. Lee, H., Lee, Y., Yoo, D. (2000). The determinants of perceived service quality and its relationship with satisfaction. *Journal of Services Marketing*, 14(2/3), 217-232
15. Lehtinen, U., & Lehtinen, J. R. (1991). Two Approaches to Service Quality Dimensions. *The Service Industries Journal*, 11(3), 287-303
16. Mabić, M., (2011). Percepcija kvalitete u visokom obrazovanju – Osvrt na studente Sveučilišta u Mostaru, *Zbornik radova sa 7. Naučno-stručnog skupa s međunarodnim učešćem*, ur. Brdarević, S., 855-860, Neum, BiH, 1.-4.6.2011.
17. Martínez, J.A., Martínez, L. (2010). Some insights on conceptualizing and measuring service quality, *Journal of Retailing and Consumer Services*, 17 (1), 29-42
18. Owlia, M. S., & Aspinwall, E. M. (1996). Quality in higher education--a survey, *Total Quality Management*, 7(2), 161-171
19. Parasuraman, A. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing* (pre-1986), 49(000004), 41.
20. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A Multiple-Item Scale For Measuring Consumer Perceptions of Service Quality, *Journal of Retailing*, 64(1), 12-40
21. Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Understanding Customer Expectations of Service. *Sloan Management Review*, 32(3), 39-48
22. Ramaiyah, A.; Md. Zain, A.N.; Ahmad, H. (2007). Exploring the dimensions of service quality in higher education research. In: *Regional conference on quality in higher education "Quality driven initiatives: sharing good practices in higher education"*. (Unpublished)
23. Rosić, V. (1998). Kvaliteta u odgoju i obrazovanju – pristupi i rješenja, *Zbornik radova s Međunarodnog znanstvenog kolokvija*, Rijeka, veljača 1998.

24. Sangeeta, S., Banwet, D. K., Karunes, S. (2004). Customer requirement constructs: the premise for TQM in education: A comparative study of select engineering and management institutions in the Indian context. *International Journal of Productivity and Performance Management*, 53(5/6), 499 - 520
25. Seth, N., Deshmukh S.G., Vrat, P. (2005). Service quality models: a review, *International Journal of Quality & Reliability Management*, 22(9), 913–949
26. Sirvanci, M. (1995). Are students the true customers of higher education, *Quality Progress*, 29(1), 99-102
27. Srikanthan, G., Dalrymple, J. (2002). Developing a Holistic Model for Quality in Higher Education, 7th International Conference on ISO 9000 & TQM - ICIT-2002, Melbourne, Australia
28. Voss, R., Gruber, T., Szmigin, I. (2007). Service quality in higher education: The role of student expectations, *Journal of Business Research*, 60, 949-959