SERVICE QUALITY IN HIGHER EDUCATION: A STUDENTS' PERSPECTIVE

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Abstract

Service quality has continually been a major concern for both private and public organizations, and still it remains at the focus of managerial efforts. This due to the very nature of the service, where top quality is hard to achieve, as well as due to the increasing competitive environment where higher education institutions operate. This study tries to fill the gap that exist in higher education service quality studies in Albania, by examining the perceived service quality among bachelor and master level students in several public and private universities in Albania. A modified SERVQUAL scale was used for measuring the perceived service quality, while ANOVA was employed for investigating the differences in perceptions among bachelor and master level students, as well as between public and private universities students. The results of data analysis indicate which service quality dimension are most important for students, as well as identifies service quality areas where there is more need for improvement. The study also found significant differences in perceptions between bachelor and master level students and between private and public universities students. The results of the study are beneficiary for higher education institutions decision-makers, assisting them in creating service quality improvement initiatives and long terms strategic plans. By recognizing the importance of service quality dimensions and considering students as customers, higher education institutions will be able to better compete and nurture a strong and positive image in the market. This study also confirms SERVQUAL as a suitable instrument for measuring and monitoring service quality in higher education institutions.

Keywords: *Service quality, Higher education, SERVQUAL, Albania*

Introduction:

Service quality (SQ) has emerged as a business priority since the early 90's, due to increasing competition and the deregulation of the service industry imposed by governments. Recognizing the benefits and profitability that steamed from improved quality, services companies focused on understanding customer expectations and putting their efforts in meeting and even exceeding them. This movement was accompanied by a considerable attention of academics and

researchers on service quality and the ways to improve it. Thus, hundreds of articles and papers are published on service quality, examining its dimensions in almost all the sectors of service industry. Higher education (HE) is part of the service industry, sharing all the characteristics of a typical service and naturally the need for quality measurement and improvement. The increased competition that higher education institutions are facing today in Albania makes the service quality improvement an imperative initiative. They must consider students as customers of the services that they offer, with all the features and needs and expectations that a regular services customer has. But measuring services quality in higher education is not an easy task. Due to government requirements and accreditation standards, most of the attention of higher education has been paid on curricula or tangible aspects of service, neglecting the other intangible aspect or students' perceptions on service they receive. This study aims to fill this gap and to contribute in the continuous measurement and improvement of service quality in higher education. It employs SERVQUAL measurement scale, which is a widely used instrument for measuring service quality, allowing the researcher to modify its items according to the specifics of the service sector. The data were gathered from several public and private universities in Albania, surveying students in both bachelor and master programs. After determining the relative impact of each dimension of SQ by using multiple regression technique, ANOVA analysis was employed to reveal the differences in SQ perceptions between bachelor and master level students, as well as between public universities and private universities.

Literature review:

Nowadays, higher education institutions are facing fierce competition, both domestically and from abroad. A young person can choose from numerous public and private options in his/her home country, as well as may choose to study in foreign universities, due to the globalization of higher education market (Munteanu et al., 2010). This increased competition has pushed universities to follow a market orientation and put the needs and interests of prospective and actual students at the center of their strategy. Higher education is part of service sector, and holds all the characteristics that distinguish services from tangible goods. Thus, they are intangible (they cannot be touched or sensed like tangible goods), heterogeneous (there is a great variability in the output and service encounters are different from each other), inseparable (they are simultaneously produced and consumed), and perishable (they cannot be stored or inventoried for later use). This means that the techniques and methods that are used by researchers for services in general can very well be used to study higher education services. Indeed, researchers have used service quality measurement scales, like SERVQUAL, for measuring quality of services in higher education too. SERVQUAL is a multiple item scale for measuring quality in services, based on the disconfirmation paradigm, where quality is determined by comparing customer's expectations with their perceptions. Developed by Parasuraman et al. (1985), SERVQUAL scale contains 22 pairs of statements where respondents show the level of their expectations and perceptions about the five dimensions of service quality identified by Parasuraman et al. (1985). Since its introduction the SERVQUAL scale have gained considerable

attentions and has been used for measuring service quality in various service sectors (Shekarchizadeh et al., 2011; Donelly et al., 2006; Lai et al., 2007).
The SERVQUAL scale modified or not, has also been successfully used to measure service quality in higher education settings. Thus, Calvo-Porral et al. (2013), in their measurement scale, adopted several items from SERVQUAL in order to measure such service quality variables like tangibles, responsiveness, empathy, and perceived service quality in higher education institutions. They found that only two of the dimensions, tangibles and empathy, were significant determinants of perceived service quality in the higher education institutions where they conducted their study. This scale has also used in higher education setting by Çerri, 2012, Stodnick and Rogers, 2008, Udo et al., 2011, etc.

Given the importance of service quality evaluation among higher education institutions, this research tries to give insights about student's perceptions on the quality of services provided by their universities. Based on five service quality dimensions proposed by Parasuraman et al. (1988), it employs a modified SERVQUAL scale to investigate service quality in higher education settings in Albania. In addition, it tries to uncover the differences in service quality perceptions between bachelor level and master level students, as well as between public and private universities students.
Based on previous relevant literature and the scope of the study, the following research questions were formulated:

RQ1. Which is the relative impact that each of the SQ dimension of Parasuraman et al. (1988) model has on HE service quality?
RQ2. Which are the differences, according to each dimension, between bachelor level and master level students?
RQ3. Which are the differences, according to each dimension, between public and private universities students?

Research methodology:

This study employs a modified SERVQUAL scale to measure service quality in higher education institutions. The questionnaire developed in total contains 26 pairs of statements for measuring students' expectations and perceptions on tangibles, reliability, responsiveness, assurance, empathy, and overall service quality provided (Table 1). The respondents were asked to indicate their level of disagreement/agreement with the questionnaire statements in a 7 point Likert scale. The study included 6 universities, three of them public and three private, which all offered bachelor and master study programs. 300 questionnaires were distributed and 281 were returned completed, achieving a response rate of 93.6%. The data were gathered from a team of interviewers through face interviews with students from the target population. Table 1 presents the profiles of the respondents of the questionnaires.

Table 1: Service quality dimensions and respective measurement items

Service quality dimension	Respective statements (Measurement items)
Tangibles	TAN1: The faculty has modern and latest equipment.
	TAN2: The appearance of the physical facilities of the faculty is attractive.
	TAN3: Staff is well dressed and neat in appearance
	TAN4: Library has the latest literature in your area of interest.
Reliability	REL1: When something is promised by a certain time, it always is provided by staff.
	REL2: When students have problems, staff is courteous, even if not able to help.
	REL3: Courses are taught by highly knowledgeable professors.
	REL4: The teaching staff respects lectures and exams schedules.
	REL5: Faculty staff keeps accurate records.
Responsiveness	RES1: Students are informed of schedules and changes in schedules in advance.
	RES2: Service hours of learning facilities accommodate all students
	RES3: Faculty staff is always willing to help you.
	RES4: Administrative staff are never too busy respond to student requests promptly
Assurance	ASS1: The behavior of faculty staff instills confidence in you.
	ASS2: Students are able to trust the faculty staff.
	ASS3: Faculty staff is friendly and polite
	ASS4: Teaching staff is dependable.
Empathy	EMP1: Faculty provide personal attention to every student
	EMP2: Professors have convenient office-hours to advise students
	EMP3: Staff members give students individual attention
	EMP4: Faculty has students' best interest as a major objective
	EMP5: Faculty understands the specific needs of students.
Overall HE Service Quality	SQ1: Faculty provides excellent overall service
	SQ2: Faculty provides superior service in every way
	SQ3: The standards of service in this faculty are very high
	SQ4: The quality of service in this faculty is very high

Table 2: The profiles of respondents

	Public Universities		Private Universities		
	Male	Female	Male	Female	**Totals**
Bachelor level	39	45	32	43	**159**
Master level	31	34	26	31	**122**
Totals	**70**	**79**	**58**	**74**	
	149		**132**		**281**

The first step in data analysis was scale purification. Thus, the data set was checked for missing values, normality, and outliers. The missing values were replaced using multiple imputation method in SPSS 20.0, while very few outliers were present. The data resulted linear, and the values of skewness and kurtosis were within the acceptable range. Then, in order to assess the dimensionality of the scales used in the study, factor analysis was conducted. Exploratory factor analysis (EFA) is an inter-dependency technique which aims to determine the underlying structure between variables in a statistical analysis (Hair et al., 2009). After conducting EFA, the overall factor solutions resulted in good loading patterns and explain 74.847% of the variation; also the factor structure complied with the proposed instrument.
The next step in data analysis process was conducting Confirmatory Factor Analysis (CFA). The intention was to further evaluate the dimensionality, reliability and validity of the generated structure of factors. CFA aims to determine if the number of factors and respective loadings of measured variables are in concordance with what is expected from the literature (Brown, 2006). Reliability was evaluated through the standardized Cronbach's alpha (Cronbach, 1951). Nunnally (1978) suggests that a scale with alpha greater than 0.7 is considered as reliable. After examining every dimension, the Cronbach's alpha was calculated for every distinct construct generated from factorial analysis. The final Cronbach's alpha of all items varied from 0.704 to 0.833, suggesting good internal consistency between items of every construct and construct reliability. Also, the combined scale reliability for the 26 items is 0.907, indicating that both reliability and convergent validity are guaranteed (Hair et al., 2009). Factor structure was also considered as stable. Overall, the proposed model had very good reliability, validity (both convergent and discriminant) indicators.

Data analysis and results:

RQ1. Which is the relative impact that each of the SQ dimension of Parasuraman et al. (1988) model has on HE service quality?
After confirming the factor structure, dimensionality, reliability, and validity of the six constructs, a standard multiple regression was performed in order to uncover the relative impact of service quality dimensions on HE service quality. Overall service quality served as dependent variable, while tangibles, reliability, responsiveness, assurance, and empathy were independent variables. The analysis was performed using IBM SPSS software, and a summary of results is presented in Table 3.

Table 3: Regression analysis results

Construct	Beta coefficient	Standard error	*t*-value	Significance	VIF
Constant	0.038	0.006	0.846	0.000*	1.182
Tangibles	0. 181	0.071	3.541	0.003*	1.071
Reliability	0. 207	0.051	1.651	0.018**	1.238
Responsiveness	0.103	0.014	1.394	0.008*	1.357
Assurance	0.120	0.018	4.159	0.000*	1.634
Empathy	0.083	0.004	0.684	0.004*	1.098
R^2	0.675		F-statistics	18.201	
Adjusted R^2	0.619		Significance (F-statistics)	0.000	

As it can be seen from the results, there is a significant relationship between the five dimensions of service quality and overall higher education service quality (F=18.201, significance of F<0.001). Furthermore, these five dimensions explain a considerable proportion of the variance in HE service quality, 67.5 %, as indicated by R^2 value and adjusted R^2 of 61.9%. All five dimensions were found as significant predictor of overall HE service quality. Reliability was the most influential determinant (β=0.207, p=0.005), followed by tangibles (β=0.181, p=0.018) and assurance (β=0.120, p=0.000). Responsiveness was the fourth important contributor to regression (β=0.103, p=0.008), while the last determinant was found to be empathy (β=0.083, p=0.004).
Table 3 also presents the VIF (Variance Inflation Factor) values for the regression analysis conducted. VIF is a good indicator useful for multicollinearity check in statistical analysis (Hair et al., 2009). Multicollinearity is the degree at which a construct can be explained by other constructs in the analysis (Hair et al., 2009), i.e. it refers to the situation where independent/predictor variables are highly related to each – other (Ho, 2006) and could lead to drawing wrong conclusions and making type II errors (paths do not result significant when in fact they are) (Grewal et al., 2004). VIF the ration between the total standardized variance and unique variance. If the first one is 10 times larger than the second, i.e. if construct VIF is greater than 10, then the multicollinearity between independent variables is present (Hair et al., 2009). As Table 3 shows, the VIF values vary from 1.071 to 1.634, much lower than the threshold of 10, indicating the lack of multicollinearity among regression constructs.

RQ2. Which are the differences, according to each dimension, between bachelor level and master level students?

The second research question of the study relates to the differences that exist between bachelor level and master level students, for each of the dimensions of service quality, as well as for the overall HE service quality. Table 4 presents the descriptive statistics and the results of ANOVA analysis regarding this research question:

Table 4: ANOVA results for differences between bachelor and master students

	Descriptive statistics				ANOVA		
Dimension	**N**	**Mean**	**Min**	**Max**	**Degrees of freedom**	**F**	**Sig.**
Tangibles					1	18.26	1.37
Bachelor	159	4.88	2.19	6.47			
Master	122	4.96	2.24	6.51			
Reliability					1	6.25	0.01
Bachelor	159	4.24	2.91	5.93			
Master	122	4.86	2.76	6.26			
Responsiveness					1	23.54	0.00
Bachelor	159	3.94	1.79	5.32			
Master	122	4.56	2.14	5.88			
Assurance					1	12.36	0.00
Bachelor	159	4.13	2.14	5.68			
Master	122	5.22	2.56	6.15			
Empathy					1	6.33	0.02
Bachelor	159	3.64	1.65	5.89			
Master	122	4.12	1.84	6.11			
Overall HE service quality					1	10.87	0.00
Bachelor	159	4.30	2.17	5.81			
Master	122	4.85	2.44	6.23			

As it can be seen from Table 4, there is not a significant difference between bachelor and master level students for Tangibles dimension of SQ (F=18.26, p=1.37). The mean score for bachelor students is 4.88, while for master students is 4.96. For all the other dimensions, there are significant differences in perceptions on SQ dimension, where master students constantly rate their opinions on higher levels than bachelor students. Regarding overall HE service quality, again master level students have better perceptions than bachelor level students, and the difference between groups is significant (F=10.87, p=0.00)

RQ3. Which are the differences, according to each dimension, between public and private universities students?

The last research question aims to uncover the possible differences that may exist between public and private universities, for each dimension of service quality, as well as for the overall HE service quality. Table 5 shows a summary of the descriptive statistics and the ANOVA results about the last research question:

Table 5: ANOVA results for differences between public and private universities students

	Descriptive statistics				ANOVA		
Dimension	**N**	**Mean**	**Min**	**Max**	**Degrees of freedom**	**F**	**Sig.**
Tangibles					1	7.21	0.00
Public	149	4.08	1.67	5.43			
Private	132	5.79	4.81	6.35			
Reliability					1	11.25	0.02
Public	149	4.16	2.31	4.75			
Private	132	6.11	4.38	5.82			
Responsiveness					1	18.65	0.00
Public	149	3.47	1.14	4.22			
Private	132	5.76	3.17	6.32			
Assurance					1	14.11	0.00
Public	149	3.24	1.32	4.77			
Private	132	5.35	3.84	6.19			
Empathy					1	22.24	0.01
Public	149	2.94	1.17	4.34			
Private	132	5.42	4.18	6.67			
Overall HE service quality					1	5.84	0.00
Public	149	3.46	1.58	4.62			
Private	132	5.89	4.37	6.51			

The results presented in Table 5 show that there are significant differences between public and private universities students, for all the SQ dimensions, as well as for the overall HE service quality. Private universities students mean evaluations are all evidently higher than those of private universities students.

Discussion and implications:

This study served to several purposes. It confirmed SERVQUAL scale as a suitable tool for measuring service quality in higher education settings. Its modified statements are able to fully grasp the nature and the essence of HE service quality. The five SQ dimensions of Parasuraman et al. (1985) scale were found to be also applicable in the higher education settings, reflecting good dimensionality, reliability and validity. The dimensions explained a good proportion of the variance in SQ, where reliability was the most influential determinant, followed by tangibles,

assurance, responsiveness, and finally by empathy. As reliability reflects the consistence, accuracy and correctness of service performance, it is not a surprise that this dimension is considered the most important by respondents. They pay a considerable attention towards professors' teaching quality as well as toward keeping promises by service providers and staff's courteousness. Tangible elements of service encounter are a crucial part of service experience, having a considerable impact on overall service quality. Since services are intangible, customers often rely on tangible clues to evaluate the service and to judge their satisfaction with the service. Apart the ambience, equipments and physical environment, this dimension includes also the faculty's library, which is considered as a crucial part of the learning process in universities. Interestingly, empathy resulted as having the smallest impact on overall HE service quality. Students did not judged the main aspects of empathy, such as individualized attention towards them or understanding their specific needs as more important than the aspects of other SQ dimensions, ranking empathy in the last position among the five dimensions.

Regarding differences in SQ perceptions between bachelor level students and master level, several interesting findings were reached. There was not found a significant difference for the Tangibles dimension (bachelor mean = 4.88 and master mean = 4.96, sig. = 1.37), while there were significant differences for all the other dimensions, as well as for the overall perceived SQ. Master level students mean scores were higher than bachelor students for reliability, responsiveness, assurance, and empathy dimension, as well as for overall HE service quality. The greatest gap existed for assurance dimension (1.09), while the smallest gap resulted for empathy dimension (0.48). The difference in mean evaluations between bachelor and master students for overall HE service quality was 0.55. As it can be concluded from the testing results, the master students perceive they get a better service than bachelor students. Apart tangibles, all other SQ dimensions as well as overall perceived SQ receive greater scores among master students. Both public and private HE institutions should focus on improving SQ levels for bachelor level students, especially on those dimensions like assurance, reliability and responsiveness, where there are the greatest gaps between two groups.

Regarding differences in SQ perceptions between public HE institutions and private HE institutions, students of private ones rated all the dimensions of SQ and overall HE service quality significantly higher than public universities students. The gap was evident for each dimension, where empathy dimension had the greatest difference between private HE students and public HE students (2.48), while tangibles had the smallest difference (1.71). The overall mean HE service quality evaluation of private universities students was 2.43 higher than public universities mean. These results raise serious questions for public universities, since they score at inferior levels for all SQ dimensions, as well as for overall service quality. The depth of gaps is considerable, all greater than 1.5, comparing to the maximum level of 7 used in the measurement scale. In order to be competitive in the market, public HE institutions must take a customer-oriented approach, since the pressure of fierce competitiveness from private HE has become more intense. Private HE institutions are more flexible and able to appropriately adopt effective marketing tactics and strategies towards the customers, as well as to achieve better performance in the service they offer to their students. Public universities may well learn from the best

practices of private universities, establishing customer-oriented standards and increasing the overall level of SQ among higher education institutions. This study helps both public and private HE institutions to understand the service quality from the perspective of their customers, i.e. students, and to gain deep insights about its dimensions and how it can be measured. By obtaining measurable results of SQ, HE institutions may set standards on their SQ and compare and improve SQ over time.

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