

EVALUATION OF EDUCATION SERVICE QUALITY IN SERBIA: THE SERVQUAL APPROACH

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Abstract

The main purpose of this paper is to emphasize the necessity of measuring students' satisfaction with educational service quality in secondary schools. The accent in this work is put on the determination of the difference among the degree of satisfaction of students of different grades of secondary schools in Serbia. For this purpose, SERVQUAL model was used. The results of this study indicated that levels of service quality are not satisfactory according to secondary school students, although levels differ by grades. They can be used as directions for further investments in education and ways to achieve and maintain better image at the level of individual educational organizations and national level.

Keywords

Secondary schools, students' satisfaction, service quality, SERVQUAL model

JEL Classification: I29, L15

Introduction

Education nowadays is facing increasing pressure to enhance value of its activities (Heck and Johnsrud, 2000) by placing efforts on continuous improvement in order to increase satisfaction of their stakeholders, especially: students, employees, employers, government, and industry (Kanji and Tambi, 1999). Over the last decade, the education sector has placed greater emphasis on meeting the expectations and needs of its existing students (Hill, 1995; Cheng and Tam, 1997; Sander et al., 2000) who should be in the focus of educational institutions activities. In this case, students are considered as "service recipients or customers" while teachers are seen as "service providers" (Qureshi et al., 2010). Sunanto, Taufiqurrahman and Pangemanan (2007) stated that students should be viewed as primary clients of educational institutions and, therefore, significant efforts should be put in order to maximize their satisfaction in terms of curriculum, administrative processes and educational services. According to Cheng (1997), students' satisfaction is adequate measure to assess educational quality and, therefore, the ability to address needs in this area is of prime importance. Consequently, a growing number of institutions and academics have grappled with quality issues and have undertaken research with

the aim of addressing some of the key concerns (Lau, 2003; Oldfield and Baron, 2000; Assasfeh et al., 2014). Various methods and models have been developed to measure student and stakeholder satisfaction. One of the most common ones is SERVQUAL method, which was also used in this research.

Literature review

An initial study in using SERVQUAL method in education was conducted by Pariseau and McDaniel (1997). Since then, service quality in higher education has attracted more and more attention from both researchers and practitioners (Barnes, 2007; Avdjieva and Wilson, 2002) and education institutions have started to look for effective ways to improve the delivery of education services (Nedwek and Neal, 1994). Then, by using a modified SERVQUAL scale, O'Neill (2003) found that perceptions of service quality in higher education appear to decrease due to more and more rising expectations. Later, the SERVQUAL instrument has been used to assess service quality in higher education at the undergraduate level (O'Neill, 2003; Stodnick and Rogers, 2008; Sander et al., 2000; Kong and Muthusamy, 2011; Shekarchizadeh et al., 2011) and, also, at the graduate and postgraduate levels (Barnes, 2007; Markovic, 2006; Shekarchizadeh, Rasli and Hon-Tat, 2011; Smith, Smith and Clark, 2007). LaBay and Comm (2003) evaluated expectations and perceptions of distance learning students in relation to their tutor. The SERVQUAL gap analysis represents a disconfirmation approach (Bayraktaroglu and Atrek, 2010) which views customer satisfaction judgments as the gap between their performance perceptions and their prior expectations. That means that disconfirmation is negative when expectations exceed service performance and positive when performance exceeds expectations. Parasuraman, Zeithaml and Berry (1988), authors that first introduced SERVQUAL, indicated that among the five key attributes of service quality, reliability is largely based on service outcomes, so, meeting customers' expectations is mostly achieved through it, whereas the four other service quality dimensions are more concerned with service processes and exceeding customer expectations is largely achieved through it. Smith et al. (2007) found that service quality gaps are the same for students and academic staff and confirmed that reliability was the most important dimension for all customers. The findings of Stodnick and Rogers (2008) showed the equal importance of two dimensions - reliability and assurance. Qureshi et al. (2010) found a significant relationship between reliability and responsiveness and students' satisfaction. Despite the proven success of SERVQUAL framework in higher education, there is a lack of studies in the area of secondary education that have adopted this approach. Considering the fact that quality on this level could affect students' results, choice of the university and enrollment possibility, it is obvious that this area deserves more attention.

Research methodology

The aim of this study was to determine and quantify the degree of satisfaction of secondary school students with quality of educational services in Serbia. The SERVQUAL instrument contains 22 items, and each item is used for measuring both the perception and the expectation of a particular service attribute. Questionnaires are shown in Appendices 1 and 2. The number of students within the sample was 292. The largest percent of the sample consisted of final (fourth) grade students (40%) and third grade students (33%), as they have greater prior experience with the school and therefore their attitudes can be considered more reliable. The questionnaire was distributed during the period September-November 2014 in 27 secondary schools of different orientation (gymnasiums, technical schools, economical schools, and language schools) and ownership (26% of schools were private and 74% public). The

questionnaire consisted of three parts. In the first part, the aim was students to rank five quality dimensions according to their perception of importance: tangibility (school exterior and interior appearance), reliability (respect of school rules), responsiveness (modern and interesting teaching), assurance (security and safety in school), Empathy (teachers' relation towards students). In the second part of the questionnaire, statements that represent students' expectations in case of educational services were offered and students had to evaluate them (on the Likert scale). Survey statements that represent how students perceive the delivered educational service were offered in the third part of the survey.

Results and discussion

Results show that students of all four grades consider the relation of teachers towards students (empathy) as the most important. The least important is respecting school rules (reliability) and appearance of school facilities (tangibility) (table nr.1). These results should be taken into consideration when investing the funds in education. In fact, we are witnessing a situation that the government and many donors are investing heavily in equipment and school facilities, instead of investing in selection, training and further education of teachers. When comparing expectations and perceptions of same items of the SERVQUAL instrument, we found statistically significant results in all cases (table nr. 2). For practical reasons, items are replaced with appropriate symbols (from A1 to E5), as marked in Appendices. So, students obviously expected more of educational services than they actually consider to be offered.

Table no. 1 Importance of quality dimensions by school grades

Dimensions of quality	Grades			
	First grade	Second grade	Third grade	Fourth grade
Tangibility	17,92%	15,54%	18,06%	16,38%
Reliability	20,75%	21,16%	19,75%	20,34%
Responsiveness	14,15%	15,54%	17,72%	17,70%
Assurance	22,64%	21,91%	20,99%	20,90%
Empathy	24,53%	25,84%	23,48%	24,67%

Table no. 2 Comparison of expected and perceived items of quality dimensions

Paired Samples Statistics					
		Mean	N	Std. Deviation	P value
Pair 1	A1 Exp	4.27	292	.877	.000
	A1 Per	3.32	292	1.095	
Pair 2	A2 Exp	4.34	292	.911	.000
	A2 Per	3.13	292	1.200	
Pair 3	A3 Exp	4.30	292	.970	.000
	A3 Per	3.79	292	.981	
Pair 4	A4 Exp	4.30	292	.896	.000
	A4 Per	3.03	292	1.142	
Pair 5	B1 Exp	4.31	292	.928	.000
	B1 Per	3.75	292	.921	
Pair 6	B2 Exp	4.48	292	.797	.000
	B2 Per	3.56	292	1.015	
Pair 7	B3 Exp	2.77	292	1.240	.002
	B3 Per	3.02	292	1.284	
Pair 8	B4 Exp	3.95	292	.960	.000
	B4 Per	3.63	292	1.022	

Paired Samples Statistics					
		Mean	N	Std. Deviation	P value
Pair 9	B5 Exp	4.46	292	.834	.000
	B5 Per	3.54	292	1.023	
Pair 10	C1 Exp	4.01	292	1.042	.000
	C1 Per	3.75	292	1.110	
Pair 11	C2 Exp	4.20	292	.967	.000
	C2 Per	3.59	292	1.017	
Pair 12	C3 Exp	4.33	292	.885	.000
	C3 Per	3.81	292	1.064	
Pair 13	C4 Exp	4.13	292	.978	.000
	C4 Per	3.32	292	1.111	
Pair 14	D1 Exp	4.25	292	.950	.000
	D1 Per	3.33	292	1.100	
Pair 15	D2 Exp	4.12	292	.944	.000
	D2 Per	3.64	292	1.038	
Pair 16	D3 Exp	4.46	292	.809	.000
	D3 Per	3.40	292	1.015	
Pair 17	D4 Exp	4.09	292	1.114	.000
	D4 Per	3.74	292	1.042	
Pair 18	E1 Exp	4.35	292	.985	.000
	E1 Per	3.42	292	1.156	
Pair 19	E2 Exp	4.30	292	.904	.000
	E2 Per	3.11	292	1.128	
Pair 20	E3 Exp	4.42	292	.895	.000
	E3 Per	3.46	292	1.122	
Pair 21	E4 Exp	4.50	292	.860	.000
	E4 Per	3.56	292	1.055	
Pair 22	E5 Exp	4.29	292	.927	.001
	E5 Per	4.03	292	1.163	

In determining the gap between the perceptions and expectations of educational service quality dimensions, following results were obtained (Tables 3-6):

Table no. 3 Satisfaction level of the first grade students with educational service in schools

Dimensions of quality	Expectations	Perceptions	Gap	Importance of the dimension (%)	Average gap score
Tangibility	4,57	4,04	- 0,53	17,92	- 0,095
Reliability	4,34	4,31	- 0,03	20,75	- 0,006
Responsiveness	4,82	4,71	- 0,11	14,15	- 0,016
Assurance	4,54	4	- 0,54	22,64	- 0,122
Empathy	4,51	4,34	- 0,17	24,53	- 0,042
	Overall average gap score for all dimensions				- 0,281

Table no. 4 Satisfaction level of the second grade students with educational service in schools

Dimensions of quality	Expectations	Perceptions	Gap	Importance of the dimension (%)	Average gap score
Tangibility	4,12	2,44	- 1,68	15,54	- 0,261
Reliability	3,66	3,15	- 0,51	21,16	- 0,108
Responsiveness	4,18	3,47	- 0,71	15,54	- 0,11

Dimensions of quality	Expectations	Perceptions	Gap	Importance of the dimension (%)	Average gap score
Assurance	4,19	3,34	- 0,85	21,91	- 0,186
Empathy	4,3	3,27	- 1,03	25,84	- 0,266
	Overall average gap score for all dimensions				- 0,931

Table no. 5 Satisfaction level of the third grade students with educational service in schools

Dimensions of quality	Expectations	Perceptions	Gap	Importance of the dimension (%)	Average gap score
Tangibility	4,3	3,44	- 0,86	18,06	- 0,155
Reliability	3,94	3,47	- 0,47	19,75	- 0,093
Responsiveness	4,15	3,69	- 0,46	17,72	- 0,082
Assurance	4,19	3,59	- 0,6	20,99	- 0,126
Empathy	4,27	3,59	- 0,68	23,48	- 0,16
	Overall average gap score for all dimensions				- 0,616

Table no. 6 Satisfaction level of the fourth grade students with educational service in schools

Dimensions of quality	Expectations	Perceptions	Gap	Importance of the dimension (%)	Average gap score
Tangibility	4,52	3,37	- 1,15	16,38	- 0,188
Reliability	4,1	3,49	- 0,61	20,34	- 0,124
Responsiveness	4,11	3,57	- 0,54	17,7	- 0,096
Assurance	4,25	3,53	- 0,72	20,9	- 0,15
Empathy	4,44	3,51	- 0,93	24,67	- 0,229
	Overall average gap score for all dimensions				- 0,787

When comparing average gap scores for students of different grades, it is obvious that the average gap score is the largest in case of the second grade (- 0,931), than the fourth grade (- 0,787), the third (- 0,616) and the first grade (- 0,281). Based on the data on the degree of satisfaction with educational service quality of students of different grades the following table, which shows the overall satisfaction of students of all grades, is constructed.

Table no. 7 Satisfaction level of students of all grades with educational service in schools

Dimensions of quality	Expectations	Perceptions	Gap	Importance of the dimension (%)	Average gap score
Tangibility	4,36	3,22	- 1,14	16,85	- 0,192
Reliability	3,96	3,45	- 0,51	20,32	- 0,104
Responsiveness	4,17	3,64	- 0,53	17,12	- 0,091
Assurance	4,23	3,53	- 0,7	21,21	- 0,148
Empathy	4,36	3,52	- 0,84	24,5	- 0,206
	Overall average gap score for all dimensions				- 0,741

On the bases of research findings, we can draw the general conclusion that secondary school students in the city of Belgrade, the capital city of Serbia, are not satisfied with the service quality of educational services, as evidenced by negative overall gap score of -0.741. This is a result of the gap between their expectations and perceptions, which shows that educational services did not meet their expectations, observing by all items of quality dimensions (A1 – E5). Another conclusion, which is imposed on the basis of these results, is that none of the four

dimensions have positive gap, which means that all components of educational services fail to meet the consumers' expectations. If we look at some of the quality dimensions that have the highest expectations - tangibility (4.36) and empathy (4.36), we can see that students are least satisfied with them - tangibility (3.22) and empathy (3.52). The biggest gap has tangibility (-1.14), while the largest contribution to overall dissatisfaction has empathy (-0.206). These results suggest that satisfaction with the service quality of educational services significantly depends on the relation of teachers to students, so efforts towards improving the quality of educational services should be placed in this direction. As can be seen from the previous tables, students of the first year are most satisfied (-0.281), followed by students of the third (-0.616) and the fourth year (-0.787), while students of the second year the least satisfied (-0.931). The general conclusion is that students of the first year are not satisfied with the educational service quality of their schools with the overall average gap score (-0.281), where each dimension of quality was evaluated negatively. If we look at the quality dimensions, the smallest difference between the perceived and the expected quality has the reliability (-0.03), while the largest difference has the safety (-0.54). Anyway, the students of the first year perceive the services best, compared to students of other years and, therefore, the extent of their dissatisfaction is much smaller compared to other students. This can be explained by the fact that they are in a new environment for a short time and have not yet had sufficient time to consider all aspects of the service quality of educational services that they should be delivered. The second year students are the most dissatisfied with the quality of educational services (-0.931) while the tangibility (-0.261) and the empathy (-0.266) have the largest contribution to their dissatisfaction. Students are most satisfied with the reliability, which is a result of primarily low expectations (3.66). Dissatisfaction of the third grade students is also evident, indicating the result of (-0.616). The empathy (-0.16) and tangibility (-0.155) have the largest contribution to their dissatisfaction. The responsibility is quality dimension that students are least dissatisfied with (-0.082). The fourth grade students are absolutely dissatisfied with the quality of educational services (-0.787), as each dimension of quality was evaluated negatively. The empathy has the largest contribution to their dissatisfaction (-0.229), which indicates the importance that students pay on teachers relation towards them.

Conclusion

Based on the study presented in this paper, some general conclusions can be drawn: students in Serbia are absolutely dissatisfied with the quality of educational services, as none of quality dimensions measured meets the expectations of students. For students, empathetic relation of their teachers towards them is the most important dimension - unlike the ingrained view that technical equipment or renovating affects the positive attitude of students towards school. When it comes to quality expectations and perceptions of students of various grades, it can be concluded that there are differences among their attitudes. The focus should be placed on teachers as the key element of the whole system, whose knowledge, motivation and commitment contribute to the quality of educational process.

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Appendix 1:

	What I expect from my school...	1	2	3	4	5
A1 Exp	That school area is pleasant and has various contents.					
A2 Exp	That school has modern equipment (computers, internet, boards, etc.).					
A3 Exp	That employees are decently dressed and pleasant.					
A4 Exp	That teaching material is attractive and stimulating.					
B1 Exp	Teachers responsibly complete their duties.					
B2 Exp	Teachers try to make classes more interesting and understandable.					
B3 Exp	Teachers are in regular contact with students' parents.					
B4 Exp	Teachers are able to maintain students' discipline during classes.					
B5 Exp	Atmosphere in school is motivating and friendly.					
C1 Exp	Teachers get students familiar with rules and principles of work.					
C2 Exp	Teachers stick to those rules and principles of work.					
C3 Exp	To make me feel safe and secure.					
C4 Exp	Teachers have caring relation towards students.					
D1 Exp	Teachers, with their behavior, give confidence to students.					
D2 Exp	Relations among teachers are collegial and friendly.					
D3 Exp	Teachers respect students.					
D4 Exp	Teachers' behaviour influence students' achievements.					
E1 Exp	Teachers respect the students' needs and abilities.					
E2 Exp	Teachers respect students critics.					
E3 Exp	Teachers try to motivate students.					
E4 Exp	Teachers are objective in evaluation of students.					
E5 Exp	Teachers stay longer working hours if students need additional work.					

Appendix 2:

	In my school...	1	2	3	4	5
A1 Per	School area is pleasant and has various contents.					
A2 Per	Modern equipment (computers, internet, boards, etc.) has been used.					
A3 Per	Employees are decently dressed and pleasant.					
A4 Per	Teaching material is attractive and stimulating.					
B1 Per	Teachers responsibly finish their duties.					
B2 Per	Teachers try to make classes more interesting and understandable.					
B3 Per	Teachers are in regular contact with students' parents.					
B4 Per	Teachers are managing to maintain students discipline during classes.					
B5 Per	Atmosphere is working and friendly.					
C1 Per	Teachers get students familiar with rules and principles of work.					
C2 Per	Teachers stick to those rules and principles of work.					
C3 Per	I feel safe and secure.					
C4 Per	Teachers have caring relation towards students.					
D1 Per	Teachers give confidence with their behavior to students.					
D2 Per	Relations among teachers are collegial and friendly.					
D3 Per	Teachers respect students.					
D4 Per	Teachers' behaviour influence students' achievements.					
E1 Per	Teachers respect the students' needs and abilities.					
E2 Per	Teachers respect students critics.					
E3 Per	Teachers try to motivate students.					
E4 Per	Teachers are objective in evaluation of students.					
E5 Per	Teachers stay longer working hours if students need additional work.					