

ASSESSMENT OF PERCEIVED QUALITY OF SEMPA EDUCATIONAL SERVICES

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Abstract

To increase quality of higher educational services is one of the biggest challenges these days. The paper identifies the quality gaps in School of Economics and Management in Public Administration's (SEMPA) educational services and answers the questions if there are gender and regional's differences in expectations and perceptions of quality.

SERVQUAL questionnaire was used to measure perceived quality of educational services. Interview was used to investigate problems with an individual statement in the questionnaire. The sample of the study consisted of 40 bachelor level part-time students. A convenient sampling procedure was used. The data were collected during the winter semester 2012/2013.

Results showed a SEMPA's significant negative quality gap in tangibles (mean difference - 0.9313) and reliability (mean difference -0.865) and positive gaps in responsiveness (mean difference 0.725) and empathy (mean difference 0.44). The resultant perceived quality determined as the sum of the individual, was negative (Mean diff -0.8438). The gender differences in expectations and perceptions were not confirmed (all p-values were more than significant level). Regional differences were confirmed in the perception of responsiveness (p-value 0.0297). The participants' opinions about the questionnaire also highlighted the problems with negative questionnaire's items and missing weight of dimensions' importance.

Key words: SERVQUAL, higher education, perceived service quality

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Introduction

Ongoing internationalization and world globalisation processes significantly shape the market for the universities (Mura, Buleca, Zelenakova, Qineti, & Kozelova, 2012). The universities and higher education institutes face some challenges to provide high quality programs for the society (Abari, Yarmohammadian, Esteki, & Elsevier Science, 2011). According to the Accreditation commission and Ministry of Education, Science, Research and Sport of the Slovak Republic, to increase quality of higher educational services is one of the

biggest challenges these days. It is essential that universities have to actively monitor the quality of their services and commit to continuous improvements in an effort to respond to the needs of the institutional constituencies (Pariseau & McDaniel, 1997). It is a pity, that there is still not consensus in Slovak Republic about what quality of educational services means, how to measure it and quality of learning environment is still not scientifically tested (Tóth, 2007).

Perceived service quality is one of the important concepts in the quality management literature (Sumaedi, Gede Mahatma Yuda, & Metasari, 2012). The term perceived quality is based on Parasuraman, Zeithaml and Berry's conceptual model of quality. In their studies they indicated that the perceptions of service quality performance are influenced by gaps in the difference between customers' expectations and perceptions. Those gaps arise in five dimensions: tangibles (the appearance of physical facilities, equipment, personnel and communication materials), reliability (the ability to perform the promised service dependably), responsiveness (the willingness to help customers and to provide prompt services), assurance (the knowledge and courtesy of employees and their ability to convey trust and confidence) and empathy (the provision of caring individualized attention to customers) (Parasuraman, Berry, & Zeithaml, 1991).

Also the universities are placing greater emphasis on meeting students' expectations and needs, nowadays (Aghamolaei & Zare, 2008). Perceived quality affects trust, and customer loyalty (Sumaedi et al., 2012) and has a positive significant effect on student's satisfaction (Jiewanto, Laurens, & Nelloh, 2012). Application of perceived quality measurement enables higher education institutions to identify dimensions of service where they excel or need to improve, and position their services' quality in relation to their societies. It could also inform educating university staff about the importance of their role in the quality of university services (Abili, Fatemeh Narenji, Mokhtarian, & Rashidi, 2011). Additional improvements of satisfaction can help to make higher education programs more successful (D. J. Lin et al., 2009) and competitive.

Methods

There were used quantitative and qualitative approaches in this paper. Firstly, the participants fulfilled SERVQUAL questionnaire. Secondly, the participants were interviewed about their problems with the questionnaire.

SERVQUAL questionnaire (Parasuraman, Zeithaml, & Berry, 1988) was used to measure students expectations and perceived service performance in five dimensions of

service quality: tangibles, reliability, responsiveness, assurance and empathy. Both forms of the questionnaire (for expectations and for perceived service performance) consisted of 22 items (tangibles: 4 items; reliability: 5 items; responsiveness: 4 items; assurance: 4 items and empathy: 5 items). Likert's scale, with responses ranging from 1 = strongly disagree to 7 = strongly agree, was used in all 22 items. Two additional items were used to check participants' gender and location of service use.

Data were collected during winter semester of the academic year 2012/2013 in two groups of 40 bachelor level part-time students. The first group consisted of 21 participants located in Čadca. The second group consisted of 19 participants located in Trenčín. Convenient sampling method was used. Table 1 presents sample characteristics deeply.

Tab. 1: Sample's characteristics

Group	Male		Female		Sum	
	N	% of Total	N	% of Total	N	% of Total
CA	7	17.5	14	35	21	52.5
TN	5	12.5	14	35	19	47.5
Sum	12	30	28	70	40	100

Source: author's research

The hypotheses were formulated as follows:

H1: There are significant negative gaps between students' perception of service performance and their expectations: $P(x) - E(x) < 0$.

H2: There are significant positive gaps between students' perception of service performance and their expectations: $P(x) - E(x) > 0$.

H3: There are not significant gender differences in expectations $E_M(x) \neq E_F(x)$.

H4: There are not significant gender differences in perceptions $P_M(x) \neq P_F(x)$.

H5: There are not significant location differences in expectations $E_{TN}(x) \neq E_{CA}(x)$.

H6: There are not significant location differences in perceptions $P_{TN}(x) \neq P_{CA}(x)$.

Where P=perceptions; E=expectations; x= tangibles, reliability, responsiveness, assurance, empathy; M=male; F=female; TN=Trenčín; CA=Čadca.

Hypotheses H3 and H4 were formulated based on Lin et. al's (2001) and Shoeb's (2010) findings that the relationship between personality and service quality was moderated by customers' gender (N. P. Lin, Chiu, & Hsieh, 2001; Shoeb, 2010). Hypotheses H5 and H6

were formulated based on assumption that customers in otherwise developed region are otherwise demanding, therefore they have different expectations.

The data were analyzed using SAS JMP8 software.

Described methodology had some limitations. First of all, this is a case study that was not easily to generalize. Secondly, convenience samples can be used for pilot studies, but caution should be exercised in interpreting their results (Malhotra & Birks, 2007).

Result and discussion

The first step was conducting questionnaire's reliability and validity. A Cronbach's coefficient alfa test was used. The test showed that internal consistency of entire questionnaire and its dimensions were good (all values were bigger than 0.8). As Abari et al. stated, the questionnaire has construct validity because it is based on SERVQUAL model with all its dimensions included (Abari et al., 2011).

The second step was to assess whether data were normally distributed as a basis for a decision on further steps. Shapiro-Wilk W Test was conducted. As the test showed, data were significantly normally distributed in dimensions: expectations - tangibles (p-value 0.1305); perceptions - tangibles (p-value 0.6627), reliability (p-value 0.2668) and empathy (p-value 0.0858). In all other dimensions were hypotheses about normal distribution rejected.

The statistical significance of all hypotheses was examined in the third step.

As shown in Table 2, results supported the first hypothesis $P(x) - E(x) < 0$ in dimensions: tangibles (t-ratio 1.68455; DF 37.25298, t-value -0.913) and reliability (test statistics -243, p-value less than 0.0001). The second hypothesis $P(x)-E(x)>0$ is supported in dimensions: responsiveness (test statistics 208, p-value 0.0001) and empathy (test statistics 144, p-value 0.0106).

Tab. 2: Results of the tests of hypotheses H1 and H2

Dimension	Mean Diff	Test	H1: $P(x)-E(x)<0$	H2: $P(x)-E(x)>0$	Result
Tangibles	-0.9313	t-test	<0.0001	1	$P(\text{Tangibles}) < E(\text{Tangibles})$
Reliability	-0.865	Wilcoxon Sign-Rank test	<0.001	1	$P(\text{Reliability}) < E(\text{Reliability})$
Responsiveness	0.725	Wilcoxon Sign-Rank test	0.9999	0.0001	$P(\text{Responsiveness}) > E(\text{Responsiveness})$

Empathy	0.44	Wilcoxon Sign-Rank test	0.9894	0.0106	P(Empathy)>E (Empathy)
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Source: author's research

Negative result in tangibles dimension can be explain by lack of resources. Negative result in reliability dimension suggests managerial failure. The overall SEMPA's result in perceived quality, determined as the sum of the individual gaps, is negative (Mean diff - 0.8438).

The results rejected hypotheses H3 and H4 in all dimensions. As Table 3 presented, there were not significant gender's differences in expectations and perceptions. These results do not support findings of Lin et. al (2001) and Shoeb (2010).

Tab. 3: Results of the tests of hypotheses H3 and H4

Dimension	Expectations		Perceptions	
	Test	H3: $E_M(x) \neq E_F(x)$	Test	H4: $P_M(x) \neq P_F(x)$
Tangibles	t-test	0.1673	t-test	0.8136
Reliability	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.568	t-test	0.4608
Responsiveness	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.9762	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.5538
Assurance	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.5914	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.1763
Empathy	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.5149	t-test	0.3969

Source: author's research

The results of the H5 and H6 hypotheses' test, presented in Table 4, shown significant location's differences in expectations' responsiveness (S 469.5 Z 2.17397, p-value 0.0297). Starting from research methodology's limitation, these results should be verified by further research.

Tab. 4: Results of the tests of hypotheses H5 and H6

Dimension	Expectations		Perceptions	
	Test	H5: $E_{TN}(x) \neq E_{CA}(x)$	Test	H6: $P_{TN}(x) \neq P_{CA}(x)$
Tangibles	t-test	0.1003	t-test	0.1806
Reliability	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.0519	t-test	0.1432
Responsivness	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.0297	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.5411
Assurance	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.1064	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.2048
Empathy	Wilcoxon/Kruskal-Wallis Tests (Rank Sums)	0.2066	t-test	0.715

Source: author's research

In the fourth step participants were interviewed about problems with the SERVQUAL questionnaire. The problems in understanding of negative formulation and missing weight of dimensions' importance were highlighted. These results support the critique of SERVQUAL in terms that the reversed polarity of items in the scale could cause the respondent error (Buttle, 1996).

Conclusion

We identified the negative quality gap in SEMPA's educational services. Negative result in tangibles dimension can be explained by lack of resources. Negative result in reliability dimension suggests managerial failure. Therefore, we agree with Abili et. al (2011), that perceived quality has to be constantly measured in the universities and we add that from the negative results should be drawn managerial implications as soon as possible.

It is recommended that every university carries out a similar study to improve educational services quality (Aghamolaei & Zare, 2008). Otherwise, in current highly competitive environment, universities will lose their students and thus their funds.

In further research, we recommend to focus on regional changes in expectations and perceptions of performance. Also the question whether students' expectations and perceptions of performance are changing during the time of their study could be very interesting.

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