

Effects of Servperf Dimensions on Students' Loyalty -Do You Know what is Behind the Scene?

Emir Ganić

Sarajevo School of Science and Technology
Department of Computer Science and Information Systems

Vesna Babić-Hodović

School of Economics and Business
University of Sarajevo

Maja Arslanagić-Kalajdžić

School of Economics and Business
University of Sarajevo

Abstract

The purpose of this paper is to examine the impact of higher education services quality dimensions on student satisfaction and loyalty using an example of a private university in a developing country. On a sample of 265 students, using a covariance-based structural equation modeling, we test a proposition that satisfaction fully mediates the effect of service quality dimensions, using a SERVPERF instrument, on loyalty. The results show a positive relationship between each quality dimension and satisfaction, as well as a complete lack of direct effect of quality dimensions on loyalty. This shows that satisfaction in higher education serves as a vehicle that drives the effects of quality on loyalty. Research implications and limitations are discussed and explained in the study.

Keywords: SERVPERF, services, quality, satisfaction, loyalty

1. Introduction

The concept of customers' perceived service quality, its impact on customer satisfaction and further customer loyalty has been a topic of studies and research for the last four decades (i.e. Asubonteng, McCleary & Swan, 1996; Parasuraman, Zeithaml & Berry, 1985; Grönroos, 2015). With the concept of value co-creation (Prahalad & Ramaswamy, 2004; Ranjan & Read, 2016) the interest of academics and practitioners, as well as the importance of the topic, has additionally increased. This is particularly relevant for services, and moreover high contact services, that have a high level of interaction between providers and users, mutual cooperation, but also competition regarding perceptions of possible control over the process (Babić-Hodović, Arslanagić-Kalajdžić & Mehić, 2013; Grönroos, 2015).

All the above-mentioned characteristics are typical of higher education institutions (HEI) and higher education (HE) businesses. These days, under the strong pressure of globalization, social needs and development, and labor market transformations (Mestrovic, 2017), the tendency for transforming HE from a public services to a tradable ones has forced HEIs to switch from traditional concepts of providing education and supporting society, to providers of marketable products or services (DeShields, Kara & Kaynak, 2005). These changes are followed by increased competition between traditional types of universities, but also competition with newly-founded universities (in most cases, private ones) and completely new types of HEIs. In these circumstances, factors which enable HEIs to acquire and retain students are an increasing focus of higher education research, but also causes the universities' decision-makers to become more market oriented (Edden, Kalafatis & Mathioudakis, 2011).

Two opposite approaches can be found in terms of theory and practice regarding the marketization of higher education. The first one is, for example, advocated by Emery, Kramer and Tian (2011) as well as by Svensson and Wood (2007). These authors stress that marketization is inappropriate and unacceptable for the HE context. The opposite attitude can be found in the studies of Yeo and Li (2012), Angell, Hefferan and Megicks (2008) and Yen, Liu & Chao (2009).

They insist that changing focus from the traditional concept and role of higher education as a public services available for all members of society, to understanding higher education as a business, is inevitable, stressing that neglecting these changes as well as students' needs, wishes and requests, leads to universities having a competitive disadvantage, and making their sustainability questionable (Cuthbert, 1996). The second approach is related to understanding higher education as a service industry with all the typical service characteristics and specificities which affect the way of corporate management and human resource management, but also the way of building and sustaining relationships with customers, in this case students (Clewes, 2003; Edden, Kalafatis & Mathioudakis, 2011; Narang, 2012; Owlia & Aspinwall, 1996; Yeo & Li, 2012).

In these circumstances, providing a high quality of service becomes crucial for attracting and retaining students, for the development of a positive reputation on the part of universities in the eyes of different stakeholders, as well as developing competitive advantages in regard to competitors (Berry, Parasuraman & Zeithaml, 1988; Cubillo-Pinilla, Zuniga, Losantos & Sanchez, 2009; DeShield, Kara & Kaynak, 2005; Lewis, 1989). The quality of HE services, and creating strategies for its improvement, is especially important when its impact on students' satisfaction is taken into consideration (Johns, Avci & Karatepe, 2004; Shekarchizadeh, Rasli & Hon-Tat, 2011).

Specifically, students are the primary customers of HEIs (Bunce, 2016; Hill, 1995; Hwang & Teo, 2001; Wallace, 1999), meaning that HEIs have to accept student-centered services in education, in the same way as business companies accept the concept of customer-centered marketing (Babić-Hodović, 2010). The consequences of these changes and growing pressures are related to the development of the quality assurance concept and policy, starting from the customers' (students') requests and preferences. At the same time, HEIs need students for achieving their main goals related to achieving financial goals and ensuring profitability derived from student satisfaction and retention.

Against this background, this study investigates whether perceived service quality dimensions have a direct or an indirect link on loyalty towards HEIs. Namely, we wish to narrow the research focus to the potential mediating role of satisfaction, and to assess it for each SERVPERF dimension. The research further provides evidence from a developing country, and from a context of a private university working in a certain kind of franchise with a British university. The selected private university was the first one founded in a developing country. This directly impacts on its pioneering role in the process of HE marketization, in the context of transformation of HE from the provision of public to private services. The university under consideration has seven departments in natural and computer sciences, international business and management, and languages. Students' loyalty, as the final part of the quality-satisfaction-loyalty chain, is important to university management for future projections and for planning more advanced levels of education (masters and doctoral studies, cooperation with alumni, etc.).

2. Higher education service quality

Understanding the quality dimensions which the customer evaluates is the central issue when it comes to understanding the overall concept of service quality. The assumptions of most studies in higher education clearly predict a relationship between quality, satisfaction and student loyalty. The experience and perception of performance of students are key factors for achieving customers' positive perceptions of external quality, and consequently their satisfaction and possible loyalty. Satisfaction is needed for developing loyalty, but it definitely does not guarantee that customers will stay with the company or organization (Helgesen, 2006; Helgesen & Nettet, 2007).

Despite the fact that discussions about a concept of service quality, its elements, determinants and models for service quality measurement have been the topic of theoretical and empirical studies and research for decades, authors still haven't agreed upon a unique definition (Brady & Cronin, 2001; Clewes, 2003; Lee, Lee & Yoo, 2000; Reeves & Bednar, 1994). They explain service quality as a two-dimension entity – technical quality i.e. quality of outcome and functional quality i.e. process quality (Baker & Lamb, 1993; Lehtinen, 1982; Grönroos, 1984; Parasuraman, 1985) or as three-dimensional ones, when authors add the company image as the relevant factor affecting customers' perception of the overall quality (Grönroos, 1984).

In the literature, more objective standards and strongly subjective ones can be identified. Insisting on objectivity, Crosby (1979) starts with the assumption of "defect avoidance", Juran and Gryno (1988) discuss fit to standards, while Cheng (2003) insists on planned goals achievement. On the other side, subjectivity is very strong exposed in the Kano model (Kano, 1984) where the customer's perspective is included from the very beginning, and present part of the identification of service quality dimensions.

It was the first model in which the author (Kano, 1984) explained quality as the product and services that meet or exceed customers' expectations. This concept and understanding became the basis of understanding for many other authors researching in this area and of the service quality models that they developed (Berry et al., 1988; Parasuraman et al., 1985; Sander, Stevenson, King & Coates, 2000). Similarly, attitudes about the key role of students' or stakeholders' perception of quality in terms of higher education services can be also found in other studies (Aldrige & Rowley, 1998; Barnes, 2007; Dado, Petrovicova, Cuzovic & Rajic, 2011; Harvey et al., 1992; Mai, 2005; Stodnick & Rogers, 2008). A somewhat abstract definition of quality in HE was given by Reising (1995) when he states that knowledge is the totality of quality education. Further discussion about HE service quality has not resulted in a unique definition, but academics and professional experts agreed that quality is a subjective category since it can be measured only as the perceptions of students, as primary customers, (Douglas et al., 2006; Farahmandian et al., 2013; Sanders et al., 2000) or that of other stakeholders. Conceptualization of all above-mentioned categories has to include basic concepts that are critical for all of them. It is also strongly impacted by the reality of value co-creation (Ranjan & Read, 2016). For HE services quality measurement, authors have used adaptations of traditional models such as SERVQUAL (Parasuraman et al., 1985) and SERVPERF (Cronin & Taylor, 1992; Holl, 1995; McElwee & Redeamn, 1993; Odfield & Baron, 2000; Rigotti & Pitt, 1992), but also a number of models designed specifically for the evaluation of HE services. In this group we can find HETQMEX (Ho & Wearn, 1996), HEdPERF (Firdaus, 2004), HEdPERF-SERVPERF (Firdaus, 2005) and many more. In his research, Brochado (2009) compared the original SERVPERF and SERVQUAL with the HEdPERF that was specifically designed for higher education services, and combined SERVPERF-HEdPERF models. He argues for the superiority of SERVPERF and HEdPERF, but further research is still needed to demonstrate it. For the purposes of this study, the SERVPERF method was selected for its universality.

3. Students role and perceptions of HE services quality

The nature of HE services directly implies the active participation of students as customers in the teaching/learning process (Bateson, 2002; Schneider & Bowen, 1995; Zeithaml & Bitner, 1996). These and other authors insist on the dependence of service quality perception and students' previous expectations (Asubonteng, McCleary & Swan, 1996; Berry et al., 1985; Brysland & Curry, 2001; Grönroos, 1984; Luk & Layton, 2002; Parasuraman et al., 1985, 1988, 1991), but also students' engagement with, and contribution to, the quality of service process i.e. the learning-teaching process. These explanations and categorizations are of critical importance for higher education. Higher education, by its nature, offers a transformation through the "...analytical and critical development of the student" (Harvey & Green, 1993, p.16). Later on, Harvey and Knight (1996, p.7) focused on defining students as active participants in the learning-teaching process by explaining HE as "... an ongoing transformation of the participant."

As the mentioned above, academic and empirical studies about service quality didn't lead to the creation of a unique definition or understanding of service quality, but most of them generally include two basic tenets. According to many authors (e.g. Bateson, 2002; Lovelock & Young, 1979; Kelly et al., 1990; Mills & Morris, 1986; Rodie & Kleine, 2000; Schneider & Bowen, 1995; Zeithaml & Bitner, 1996), service customers have an active role to play in employee-customer interaction, and actively participate in the service providing process. Many of them, led by the best-known authorities in terms of service theory, insist on the fact that perceived quality is based on the customers' service experience and also on their previous expectations (Berry et al., 1985; Grönroos, 1984; Parasuraman et al., 1985; Haywood-Farmer & Nollet, 1991).

4. SERVPERF and Customer Satisfaction

Previous studies have examined the role of satisfaction in terms of various perceptual antecedents and behavioral intentions (Boulding et al., 2000; Cronin & Taylor, 1992; Elliott & Shin, 2002; Rahman, Khan & Haque, 2012), such as repurchasing intentions, word-of-mouth, or loyalty. Customer satisfaction, its meaning, dimensions and influence on customer behavior and on a company's performance (business results) has presented one of the critical issues in the marketing literature for years (Churchill & Suprenant, 1982; Heskett, Jones, Loveman, Sasser & Schlesinger, 2008). Among others, strong relationships with satisfied customers served as the precedents for customer loyalty and consequently for higher profits, and this has been researched extensively (Chen 2012; Silvestro, 2006; Zeithaml et al., 1996).

Authors have explained customer satisfaction differently, depending on the service industry and the type of service delivery, and insist on its multidimensionality (Marzo-Navarro et al., 2005; Richardson, 2005).

In many different definitions of customer satisfaction, several common factors can be found. Customer satisfaction is an emotional reaction, a response to a specific experience or service/product use, and a reflection of repeated contacts, i.e. aggregate experiences (Jeong and Lee, 2010). Comparing different understandings of the concept of satisfaction and the concept of quality, one can find two opposite points of view. Both Parasuraman et al. (1988) and Bitner (1990) considered customer satisfaction to be an antecedent of service quality. On the other hand, many authors (Browne et al., 1998; Cronin et al., 2000; Ferrell et al., 2001) advocated an attitude that service quality or perceived quality is an antecedent of customer satisfaction. Similarly, Zeithaml et al. (1996) concluded that satisfaction is a construct determined by perceived service quality, value perception, personal characteristics and situational factors. In a later study, Zeithaml et al. (2008) stressed the difference between service quality and customer satisfaction, but also insisted on the fact that satisfaction is a broader concept, and that service quality is a component of satisfaction. They assume that customer satisfaction is also influenced by personal and situational factors, including price, not only by service quality.

Student satisfaction has a crucial role to play in terms of university survival and development. The management of universities expect that satisfied students will share positive word-of-mouth, as satisfied customers usually do, and help universities to attract and recruit new candidates (Wiers-Jenssen et al., 2002; Mavondo et al., 2004; Helgesen & Nettet, 2007). They also hope to be able to retain current students and to develop further cooperation with them. According to the service profit chain and many other studies, customer satisfaction lead to customer loyalty (Bloemer & de Ruyter, 2010; Sirdeshmukh et al., 2002; Storbacka et al., 1994; Zeithaml, 2000). Some authors have discussed these relationships in a wider context. Based on previous marketing research, they proved that service quality, student satisfaction and the overall image of the institution leads to student loyalty (Fogarty et al., 2000; Helgesen, 2006; Walker, 2009). Therefore, we hypothesize:

Hypothesis 1: Student perception of higher education services quality dimensions has a significant positive impact on student satisfaction.

5. SERVPERF and Customer loyalty

In the previously discussed context of the new role of students, their impact on universities' success, and changes of the universities position in contemporary economy and society, loyalty was shown to be of great importance, together with higher education quality and student satisfaction (Bodet, 2008; Lin & Wang, 2006). Loyalty, which is shown to be a prerequisite of successful monetary results for firms, has been a topic of academic discussion and empirical studies (Kumar & Shah, 2004; Rauyruen & Miller, 2007; Olorunniwo, Hsu & Udo, 2006; Rust & Zahorik, 1993; Vesel & Zabkar, 2009). Traditionally, the definition of loyalty has been based on two components which have been used by authors for the explanation of the meaning of loyalty (Guillen, Nielsen, Scheike & Marin, 2011). Authors have considered customer loyalty to be behavioral loyalty or behavioral intentions, i.e. intentions to repurchase the company's products or services, and to recommend the company and services to others (Auh & Johnson, 2005; Bolton, Kannan & Bramlett, 2000; Kim & Yoon, 2004; Mcleroy & Barnett, 2000) or attitudinal loyalty i.e. certain kinds of emotional connection or customers having a positive image of the company which can result in certain decisions in the future (Babić-Hodović, Arslanagić-Kalajdžić & Mehić, 2013). Behavioral loyalty is related to the customer retention category. The difference is in the point of view and evaluation. While customer loyalty includes customers' opinion, critical evaluation, acceptance and feelings, the concept of the retention is one of the goals which managers often define as being a priority, mostly because of the positive financial effects on the company (Rust, Zahorik & Keiningham, 1995; Verhoef, 2003).

Gerpott, Rams and Schindler (2001) define customer retention as the continuity of the business relations between the customer and company. Obviously, in essence it is the same concept as that of loyalty. Verhoef (2003), for example, clearly stated that emotional commitment and loyalty programs that offered financial incentives, have a positive impact on customer retention. Authors often define student loyalty as a process of creating relationships with a university and increasing students' readiness for commitment to the HEI's services. Recent studies have identified customer commitment as a key mediator of the relationship between a customer's evaluations of a company's performance and his/her intentions with regard to future relationships with the company (Fullerton, 2005). According to Ndubisi et al. (2012) it is possible to define student loyalty as a deeply commitment on the part of students who are ready to maintain relations with a university and to continue using its services in the future, despite any situational changes. Dado et al. (2011) concluded that students will continue to demand services whenever the service benefits are known to them. But Behara et al. (2002) and Singh and Sirdeshmukh (2000) refer to student loyalty as the actual behavior of students in maintaining relationships with the university

through the current use of services and continuing to be enrolled at the university. Universities experience positive effects of students' loyalty primarily through a decrease in the costs of acquiring new students (Mendez et al., 2009) and creating opportunities for future activities and long-term sustainability. As a consequence, universities identify student loyalty as an important source of competitive advantages (Helgesen & Nettet, 2007). Therefore, we hypothesize:

Hypothesis 2: Student satisfaction has a significant positive impact on student loyalty.

Hypothesis 3: Student satisfaction mediates the effect of service quality dimensions on loyalty.

6. Methodology

To assess the proposed hypotheses, we conducted a study in a higher educational setting, involving one private university and its students. Perceived service quality was measured through the use of a SERVPERF instrument (Cronin & Taylor, 1994) involving five dimensions: tangibles, reliability, responsiveness, assurance and empathy. With regard to student satisfaction, the Hennig-Thurau (2004) scale was used, and students evaluated their overall satisfaction with the university. Finally, student loyalty was evaluated based on the De Ruyter et al. (1998) scale which measured the students' personal commitment and support for the university, their readiness to recommend the university to others, as well as their readiness to maintain and develop their relationship with the university in the future. All items were measured on a 7-point Likert-type scale from 1 (Absolutely Disagree) to 7 (Absolutely Agree). The research instrument was a self-administered questionnaire. The final dataset comprised 265 students (80% response rate) from seven different departments (7-86 students per department) out of which 29% were in the first year of study, 34% in the second year of study, 22% in the third year of study, and the rest in the final (fourth) year of study; 53% were female students, and the average age was 21 (mean = 20.60, S.D. = 2.24).

7. Results

In order to assess the reliability and validity of the measurement instrument, we first conducted a confirmatory factor analysis (CFA) using Lisrel 8.71 (Anderson & Gerbing, 1988; Fornell & Larcker, 1981). The final CFA model showed a good fit (Model fit: $\chi^2 = 377.43$, $df = 115$, RMSEA = 0.09, NNFI = 0.96, CFI = 0.97, SRMR = 0.05). The composite reliability index and the average variance extracted show a good reliability of measures, except for the responsiveness measure where, due to the reverse coding, we had to keep only one item ("I receive a prompt service from the university") which inherently represented the responsiveness construct. Furthermore, all correlations between constructs were moderate to high, and all of them were significant, which shows discriminant validity. Discriminant validity is further confirmed by the fact that the average variances extracted were higher than the squared correlations.

Table 1: Reliability and validity of measures

#	Constructs	Loadings	CR	1	2	3	4	5	6	7
1	Tangibility	0.67-0.89	0.82	0.61						
2	Reliability	0.69-0.88	0.88	0.37	0.59					
3	Responsiveness	N/a	N/a	0.19	0.55	N/a				
4	Assurance	0.71-0.85	0.76	0.42	0.50	0.52	0.61			
5	Empathy	0.83-0.94	0.88	0.26	0.44	0.43	0.60	0.79		
6	Satisfaction	0.93-0.94	0.93	0.22	0.47	0.28	0.43	0.52	0.87	
7	Loyalty	0.72-0.95	0.91	0.17	0.42	0.29	0.44	0.40	0.57	0.77

Notes: CR = Composite reliability, Average variances extracted are shown on a diagonal in bold, Squared correlations are shown below the diagonal; All correlations are significant

We further continued with a covariance-based SEM analysis using Lisrel 8.71, in order to test the hypotheses. With the aim of determining whether or not there was a mediating effect for every dimension of SERVPERF, we assessed five separate models, one for each dimension. The results of the analysis are presented in Table 2 below.

Table 2: Results of the analyses

	Model 1 Tangibility	Model 2 Reliability	Model 3 Responsiveness	Model 4 Assurance	Model 5 Empathy
<i>Relationships</i>					
SERVPERF dimension → Satisfaction	0.45***	0.69***	0.53***	0.65***	0.72***
SERVPERF dimension → Loyalty	-0.03	0.01	0.07	0.04	-0.08
Satisfaction → Loyalty	0.95***	0.93***	0.90***	0.91***	0.99***
Mediating effect	0.43***	0.64***	0.48***	0.59***	0.71***
<i>Model Information</i>					
R ² _{Satisfaction}	0.21	0.48	0.28	0.43	0.51
R ² _{Loyalty}	0.87	0.87	0.88	0.88	0.88
χ ²	53.20	102.19	5.75	27.15	27.93
df	17	32	7	11	11
RMSEA	0.09	0.09	0.02	0.07	0.08
NNFI	0.97	0.97	0.99	0.98	0.98
CFI	0.98	0.98	0.99	0.99	0.99
SRMR	0.04	0.05	0.01	0.03	0.03

Notes: Each model focuses on one SERVPERF dimension as outlined, *** - $p < 0.001$; χ^2 = Chi-square; df = degrees of freedom; RMSEA = Root Mean Square Error of Approximation, NNFI = Non-normed Fit Index; CFI = Comparative Fit Index; SRMR = Standardized Root Mean Square Residual;

We can first observe that all SERVPERF dimensions positively influence satisfaction to a significant extent, which confirms Hypothesis 1. When it comes to the strength of the effect, tangibility has the weakest impact on satisfaction ($\beta = 0.45$, $p < 0.001$), while empathy has the strongest ($\beta = 0.72$, $p < 0.001$). We further see that satisfaction strongly impacts, positively and significantly, on loyalty. This impact is not changed across all five models. This confirms Hypothesis 2. Finally, what is really interesting, we can see that none of the SERVPERF dimensions is directly related to loyalty – the effect captured is low and insignificant. On the contrary, we find support for the moderating hypothesis (Hypothesis 3) in all five cases, namely that satisfaction acts as a vehicle that links service quality perceptions to loyalty, and our results show that in HE services the main pre-condition for loyalty is satisfaction. The mediating effect is the strongest in the case of empathy ($\beta = 0.71$, $p < 0.001$), followed by reliability ($\beta = 0.64$, $p < 0.001$) and then assurance ($\beta = 0.59$, $p < 0.001$).

8. Discussion and Conclusions

This study offers an analysis of the effects of perceived quality on satisfaction and loyalty. It isolates each quality dimension separately and assesses its direct and indirect relationships with the focal outcomes. The results of the analysis show that each quality dimension is directly, positively and significantly related to satisfaction. However, the strength of their influence varies. Namely, tangibility explains only 21% of variance in satisfaction, while empathy explains as high as 51%. Furthermore, the results show that none of the quality dimensions is directly related to loyalty to any significant extent. However, there are evidences of indirect effects, facilitated by satisfaction. Empathy has the strongest direct and indirect effects on satisfaction and loyalty and is followed by reliability. In most of the previous studies in different areas, reliability turned out to be the most important variable (Parasuraman et al., 1985; Cronin & Taylor, 1994), and our study shows it to be second in terms of importance. In Agbor's (2011) study, reliability, responsiveness and assurance had significant relationships with both customer satisfaction and service quality, while empathy was significantly related to service quality, but not to customer satisfaction. Ismail et al. (2009) researched only responsiveness, assurance and empathy, and confirmed the statistical significance of all three variables in terms of perceived value and student satisfaction at university, as did Jiao (2013).

This research contribution can be considered from the academic and managerial points of view. In sum, it has extended the previous theoretical discussion about the possibility of applying a traditional service quality model to higher educational services in the circumstances of a developing economy. In addition, the difference with regard to previous studies is in terms of the analytical approach regarding the evaluation of the relationship between individual dimensions of service quality and student satisfaction and loyalty. This study was undertaken at a private university, working on the principles of franchising, which is specifically important for the ideas about readiness to accept private ownership in higher education. It is also the first privately-funded university in the country to exist in a period of transition from the concept of higher education belonging to the public sector to the concept of privately-funded universities.

It could be important for other regional and international universities if they have plans to start operations in developing countries. The findings of the study are important for the university management, especially in the context of a student-oriented approach, in that it highlights the importance of motivation for retaining students and for developing long-term relationships, as well as optimizing resource management. Taking into consideration the results of the study, management has the opportunity to monitor the students' reactions to the improvements in quality dimensions, and to make decisions about efficient investment aimed at increasing student satisfaction. The main limitations of this research are related to the fact that it was undertaken in one particular university. For possible generalization of the findings, other studies should be carried out in both public and private universities in developing countries, and also research should be carried out in different cultural contexts.

References

- Agbor, M. J. (2011). *The Relationship between Customer Satisfaction and Service Quality: A Study of Three Service Sectors in Umeå*. Umeå University - Master thesis.
- Al-Allak, A. B. and Alnasar, S. M. A. (2012). Assessing the relationship between higher education service quality dimensions and student satisfaction. *Australian Journal of Basic and Applied Science*, 6(1), 156-164.
- Aldridge, S. and Rowley, J. (1998). Measuring customer satisfaction. *Quality Assurance in Education*, 6(4), 197-204.
- Anderson, J. C. and Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Asubonteng, P., McCleary, K.J. and Swan, J.E. (1996). SERVQUAL revisited: A critical review of service quality. *The Journal of Services Marketing*, 10(6), 66-81.
- Babić-Hodović, V. (2010). *Marketing usluga: Koncept, strategije i implementacija* (Marketing Strategy: Concept, Strategies and Implementation). Ekonomski fakultet Sarajevo.
- Babić-Hodović, V., Arslanagić-Kalajdžić, M. and Mehić, E. (2013). Importance of internal marketing for service companies corporate reputation and customer satisfaction. *Journal of Business Administration Research*, 2(1), 49-57.
- Baker, J. A. and Lamb, C. W. Jr. (1993). Measuring architectural design service quality. *Journal of Professional Services Marketing*, 10(1), 89-106.
- Barnes, B. R. (2007). Analyzing service quality: the case of post-graduate Chinese students. *Total Quality Management & Business Excellence*, 18(3), 313-331.
- Bateson, J. (2002). Consumer performance and quality in services. *Managing Service Quality: An International Journal*, 12(4), 206-209.
- Berry, L. L., Parasuraman, A. and Zeithaml, V. A. (1985). Quality counts in services, too. *Business Horizons*, May-June, 44-55.
- Bitner, M. J. (1990). Evaluating service encounters: the effects of physical surroundings and employee responses. *Journal of Marketing*, 54, 69-82.
- Bloemer, J. (1999). Linking perceived service quality and service loyalty: A multidimensional perspective. *European Journal of Marketing*, 33(11/12), 1082-1106.
- Bloemer, J. and de Ruyter, K. (2010). Customer loyalty in high and low involvement service settings: The moderating impact of positive emotions. *Journal of Marketing Management*, 314-330.
- Bolton, R. N., Kannan, K. P. and Bramlett, D. M. (2000). Implications of loyalty program membership and service experiences for customer retention and value. *Journal of the Academy of Marketing Science*, 28(1), 95-108.
- Brady, M. K. and Cronin, J. J. (2001). Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *Journal of Marketing*, 65, 34-49.
- Brochado, A. (2009). Comparing alternative instruments to measure service quality in higher education. *Quality Assurance in Education*, 17(2), 174-190.
- Browne, B., Kaldenberg, D., Browne, W. and Brown, D. (1998). Student as customers: factors affecting satisfaction and assessments of institutional quality. *Journal of Marketing for Higher Education*, 8(3), 1-14.
- Bryceland, A. and Curry, A. (2001). Service improvements in public services using SERVQUAL. *Managing Service Quality*, 11(6), 389-401.
- Bunce, L., Baird, A. and Jones, E. S. (2016). The student-as-consumer approach in higher education and its effects on academic performance. *Studies in Higher Education*, DOI: 10.1080/03075079.2015.1127908. Retrieved May 20, 2017.
- Chen, S. C. (2012). The customer satisfaction – loyalty relation in an interactive e-service setting: The mediators. *Journal of Retailing and Consumer Services*, 19(2), 202-210.

- Cheng, Y. C. (2003). Quality assurance in education: internal, interface, and future. *Quality Assurance in Education*, 11(4), 202-213.
- Churchill, G. A. Jr. and Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*, 19, 491-504.
- Clewes, D. (2003). A student-centered conceptual model of service quality in higher education. *Quality in Higher Education*, 9(1), 69-85.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structures of tests. *Psychometrika*, 16(3), 297-333.
- Cronbach, L. J. and Hieehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302.
- Cronin, J. Jr. and Taylor, S. A. (1994). SERVPERF versus SERVQUAL Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, 58, 125-131.
- Cronin, J. J. and Taylor, S. A. (1992). Measuring Service Quality: A Re-examination and Extension. *Journal of Marketing* 56(3), 55-68.
- Cronin, J. J. Jr, Brady, M. K. and Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218.
- Crosby, P. (1979). *Quality is Free*. New York: McGraw Hill.
- Cubillo-Pinilla, J., Zuniga, J., Losantos, I. and Sanchez, J. (2009). Factors influencing international students' evaluations of higher education programs. *The Journal of American Academy of Business*, 15(1), 270-278.
- Dado, J., Taborecka-Petrovičova, J., Riznić, D. and Rajić, T. (2011). An Empirical Investigation into the Construct of Higher Education Service Quality. *International Review of Management and Marketing* 1(3), 30-42.
- DeShields, O. W., Kara, A. and Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: applying Herzberg's two-factor theory. *International Journal of Educational Management*, 19(2), 128-139.
- Douglas, J., Douglas, A. and Barnes, B. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, 14(3), 251-267.
- Edden, L., Kalafatis, S. and Mathioudakis, A. (2011). The Idiosyncratic Behavior of Service Quality, Value, Satisfaction, and Intention to Recommend in Higher Education: An Empirical Examination. *Journal of Marketing Management* 27(11-12), 1232-1260.
- Elliott, K. M. and Shin, D. (2002). Student satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education Policy Management*, 24, 197-209.
- Emery, C., Kramer, T. and Tian, R. (2011). Customer vs. product: adopting an effective approach to business students. *Quality Assurance in Education*, 9(2), 110-115.
- Farahmandian, S., Minavand, H. and Afshardost, M. (2013). Perceived service quality and student satisfaction in higher education. *Journal of Business and Management*, 12(4), 65-74.
- Farrell, A. M., Souchon, A. L. and Durden, G. R. (2001). A Conceptualization of Service Encounters: Employees' Service Behaviors and Customers' Perceptions of Service Quality. *Journal of Marketing Management*, 17 (5/6), 577-594.
- Farner, S., Luthans, F. and Sommer, M. (2001). An empirical assessment of internal customer service. *Managing Service Quality: An International Journal*, 11(5), 350-358.
- Firdaus, A. (2006a). Measuring service quality in higher education: HEDPERF versus SERVPERF. *Marketing Intelligence & Planning*, 24(1), 31-47.
- Firdaus, A. (2006b). The development of HEDPERF: a new measuring instrument of service quality for the higher education sector. *International Journal of Consumer Studies*, 30(6), 569-581.
- Fornell, C. and Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 382-388.
- Fournier, S. (1988). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343-373.
- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Grönroos, C. (2015). *Services Management and Marketing: Managing the Service Profit Logic*, 4th Ed. Wiley.
- Ham, L. and Hayduk, S. (2003). Gaining competitive advantages in higher education: analyzing the gap between expectations and perceptions of service quality. *International Journal of Value-Based Management* 16(3), 223-242.
- Harvey, L. and Green, D. (1993). Defining quality. *Assessment & Evaluation in Higher Education*, 18(1), 9-34.
- Harvey, L. and Knight, P. (1996). *Transforming Higher Education*. Society for Research into Higher Education, London.
- Haywood-Farmer, J. and Nollet, J. (1991). *Services Plus: Effective Service Management*, Morin, Boucherville, Que.

- Helgesen, O. (2006). Are loyal customers profitable? Customer satisfaction, customer action, loyalty and customer profitability at the individual level. *Journal of Marketing Management* 22, 245-266.
- Helgesen, O. and Nettet, E. (2007). Images, satisfaction and antecedents: Drivers of student loyalty? A case study of a Norwegian University College. *Corporate Reputation Review*, 10, 38-59.
- Henard, F. and Roseveare, D. (2012). *Institutional management in higher education, fostering quality teaching in higher education: Policies and practices*. An IMHE Guide for Higher Education Institutions. www.oecd.org/edu/imhe. Retrieved April, 27, 2017.
- Heskett, J. L., Jones, O. T., Loveman, W. G., Sasser, E. W. and Schlesinger, A. L. (2008). Putting the service-profit chain to work. *Harvard Business Review*, 86, 118-129.
- Hill, F. M., (1995). Managing service quality in higher education: the role of student as primary consumer. *Quality Assurance in Education*, 3(3), 10-21.
- Ho, S. K. and Wearn, K. (1996). A higher education TQM excellence model: HETQMEX. *Quality Assurance in Education*, 4, 35-42.
- Hwang, H. B. and Teo, C. (2001), Translating customer's voices into operations requirements – A QFD application in higher education. *International Journal of Quality & Reliability Management*, 18(2), 195-225.
- Ismail, A., Abdullah, B. M. M. and Francis, K. S. (2009). Exploring the relationships among service quality features, perceived value and customer satisfaction. *Journal of Industrial Engineering and Management*, 2(1), 230-250.
- Jacoby, J. and Kyner, B. D. (1973). Brand loyalty vs. repeat purchasing behavior. *Journal of Marketing Research*, 10(1), 1-9.
- Jeong, Y. and Lee, Y. (2010). A study on the customer satisfaction and customer loyalty of furniture purchaser in online shop. *Asian Journal on Quality*, 11(2), 146 – 156.
- Jiao, L. (2013). Factors affecting customer satisfaction and customer loyalty towards Belle Footwear Company in Lanzhou City, Gansu Province of the People's Republic of China. *IOSR Journal of Business and Management (IOSR-JBM)*, 14(2), 41-48.
- Juran, J. M. and Gryna, F. M. (Eds.). (1988). *The Quality Control Handbook* (4th ed.). New York: McGraw-Hill.
- Kelley, S. W., Donnelly, J. H. Jr. and Skinner, S. J. (1990). Customer participation in service production and delivery. *Journal of Retailing*, 66, Fall, 315-335.
- Kano, N., Seraku, N., Takahashi, F. and Tsuji, S. (1984). Attractive quality and must-be quality. *Journal of the Japanese Society for Quality Control*, 14(2), 39-48.
- Kotze T. G. and du Plessis, P. J. (2003). Students as 'co-producers' of education: a proposed model of student socialization and participation at tertiary institutions. *Quality Assurance in Education*, 11(4), 186- 201.
- Kumar V. Shah D. (2004). Building and sustaining profitable customer loyalty for the 21st century. *Journal of Retailing*, 80, 317-330.
- Lee, H., Lee, Y. and Yoo, D. (2000). The Determinants of perceived service quality and its relationship with satisfaction. *Journal of Services Marketing*, 14(3), 217-231.
- Lehtinen U. and Lehtinen J. R. (1992). Service quality: A study of quality dimensions. *Working Paper*, Service Management Institute, Helsinki.
- Lengnick-Hall, C., Claycomb, V. and Inks, L. (2000). From recipient to contributor: examining customer roles and experienced outcomes. *European Journal of Marketing*, 34(3/4), 359-383.
- Lewis, R. B. (1989). Quality in the service sector: A review. *International Journal of Bank Marketing*, 7(5), 4-12.
- Lovelock, C. H. and Young, R. F. (1979). Look to consumers to increase productivity. *Harvard Business Review*, 57, Summer, 9-20.
- Luk, S. T. K. and Layton, R. (2002). Perception gaps in customer expectations: Managers versus service providers and customers. *The Service Journal*, 22(2), 109-128.
- Mai, L. (2005). A Comparative study between UK and US: The student satisfaction in higher education and its influential factors. *Journal of Marketing Management*, 21, 859-878.
- Marzo-Navarino, M., Pedraja-Iglesias, M. and Rivera-Torres, M. (2005). Measuring customer satisfaction in summer courses. *Quality Assurance in Education*, 13(1), 53-65.
- Meštrović, D. (2017). Service quality, students' satisfaction and behavioral intentions in STEN and IC higher education institutions. *Interdisciplinary Description of Complex Systems* 15(1); 66-77.
- McElwee, G. and Redman, T. (1993). Upward appraisal in practice: An illustrative example using the QUALED model. *Education and Training*, 35(2), 27-31.
- Mills, P. K. and Morris, J. H. (1986). Clients as 'partial' employees: role development in client participation. *Academy of Management Review*, 11(4), 726-735.
- Oldfield, M. B. and Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. *Quality Assurance in Education*, 8(2), 85-95.

- Olorunniwo, F., Hsu, M. and Udo, G. (2006). Service quality, customer satisfaction, and behavioral intentions in the service factory. *Journal of Service Marketing*, 20(1), 59–73.
- Owlia, M. S. and Aspinwall, E. M. (1996). A framework for the dimensions of quality in higher education. *Quality Assurance in Education*, 4(2), 12-20.
- Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41-50.
- Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of quality. *Journal of Retailing*, 64(1), 12-40.
- Parasuraman, A., Berry, L. L. and Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67(4), 420-450.
- Prahalad, C. K. and Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5-14.
- Rahman, M. S., Khan, H. A. and Haque, M. M. (2012). A conceptual study on the relationship between service quality towards customer satisfaction: SERVQUAL and Grönroos service quality model perspective. *Asian Social Science*, 8, 201-210.
- Ranjan, R. K. and Read, S. (2016). Value co-creation: concept and measurement. *Journal of the Academy of Marketing Science*, 44(3), 290-315.
- Rauyruen, P. and K.E. Miller, 2007. Relationship quality as a predictor of B2B customer loyalty. *Journal of Business Research*, 60, 21-31.
- Reeves, C. A. and Bednar, D. A. (1994). Defining quality: Alternatives and implications. *Academy of Management Review*, 19(3), 419-445.
- Rigotti, S. and Pitt, L. (1992). SERVQUAL as a measuring instrument for service provider gaps in business schools. *Management Research News*, 15(3), 9-17.
- Rodie, A. R. and Kleine, S. S. (2000). Customer participation in services production and delivery. In *Handbook of Service Marketing and Management*, T. A. Swartz and D. Iacobucci, eds., Thousand Oaks, CA: Sage Publications, Inc., 111-126.
- Roland, R. and Zahorik, J. A. (1993). Customer satisfaction, customer retention and market share. *Journal of Retailing*, 69, Summer, 193–215.
- Sander, P., Stevenson, K., King, M. and Coates, D. (2000). University students' expectations of teaching. *Studies in Higher Education*, 25(3), 309-323.
- Schneider, B. and Bowen, D. E. (1999). Understanding customer delight and outrage. *Sloan Management Review*, 41, 35- 46.
- Shekarchizadeh, A., Rasly, A. and Hon-Tat, H. (2011). SERVQUAL in Malaysian universities: perspectives of international students. *Business Process Management Journal*, 17(1), 67-81.
- Silvestro, R. and Low T. H. (2006). The asymmetric relationship between customer satisfaction, dissatisfaction, loyalty and financial performance in B2B companies. *Operations Management Group*. University of Warwick, Singapore.
- Stodnick, M. and Rogers, P. (2008). Using SERVQUAL to measure the quality of the classroom experience. *Decision Sciences Journal of Innovative Education*, 6(1), 115-133.
- Vesel, P. and Zabkar, V. (2009). Managing customer loyalty through the mediating role of satisfaction in the DIY retail loyalty program. *Journal of Retailing and Customer Services*, 16, 396-406.
- Wallace, J. B. (1999). The case for student as customer. *Quality Progress*, February, 47-51.
- Zeithaml, V.A. and Bitner, M.J. (1996). *Services Marketing*. New York, N.Y: McGraw-Hill.
- Zeithaml, V. A., Parasuraman, A. and Berry, L. L. (1985). Problems and strategies in services marketing. *Journal of Marketing*, 49(2), 33-46.
- Zeithaml, V. A., Parasuraman, A. and Berry, L. L. (1990). *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. The Free Press, New York, NY.
- Zeithaml, V. A. (2000). Service quality, profitability and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28, 67-85.