SERVICE QUALITY, STUDENTS' SATISFACTION AND BEHAVIOURAL INTENTIONS IN *STEM* AND *IC* HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

Service quality, students' satisfaction and their behavioural intentions are recognised as rather important aspects in higher education institution's strategy in a competitive higher education marketplace, which enable them to attract and retain students in science, technology, engineering and mathematics (STEM) and information-communication (IC) study areas. This research aimed to study the relationship between service quality, students' satisfaction and behavioural intentions of STEM and IC students of the University of Rijeka Departments. Partial least squares structural equation modelling using SmartPLS 3.0 software was performed on student survey data, confirming a direct, positive and significant relationship between higher education service quality and students' satisfaction and between students' satisfaction and their behavioural intentions. According to indirect effects analysis, perceived higher education service quality has an an indirect, positive and significant impact on students' behavioural intentions through students' satisfaction. The results indicate that higher education service quality is an imperative for higher education sector. Based on the findings of this study, useful to policy makers in the services industry in general and in higher education sector in particular, improvements can be planned all service quality dimensions as a key factor to attract, educate and retain STEM and IC students in Croatia.

KEY WORDS

CLASSIFICATION

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INTRODUCTION

In our present knowledge economy, due to the globalisation and increasing and rapid development of information and communication technologies, knowledge and learning emerged as the primary sources of wealth creation [1]. For this reason, knowledge and skills obtained at higher education institution in science, technology, engineering and mathematics (STEM) and information-communication (IC) study areas, can be considered as the essential drivers which can take the whole community on the right path towards sustainable development, laying the foundations for more inclusive knowledge society [2]. Therefore, the traditional role of higher education and higher education institutions became even more important, due to the fact that the higher education institutions are expected to be the centre of intellectual, cultural, social and technological development of the community, and to be a fundamental lever of sustainable development.

Higher education in STEM and IC study area is facing a wide range of challenges and difficulties in fulfiling its tasks. Higher education environment is changing under the impact of social needs and development and labour market transformations. In today's competitive higher education marketplace, where students have a wide range of options and choices available, factors that enable higher education institutions to attract and retain students became increasingly considered with attention, resulting in circumstances that caused higher education institutions to start the implementation of marketing concepts in order to survive in global higher education market [3]. Emery, Kramer and Tian [4] and Svensson and Wood [5] argue that the marketisation is inappropriate and unacceptable in the context of higher education. On the contrary, Angell, Heffernan and Megicks [6] and Yeo and Li [7] argue that neglecting students' needs and expectations and ignoring competitive forces in higher education setting eventually leads to become the most distinctive disadvantages of higher education institutions. Cuthbert [8], Owlia and Aspinwall [9] and Clewes [10] support the idea of higher education as a service business, since it reveals all typical features of services, it is intangible and inseparable from their consumption and higher education satisfies both heterogeneity and perishability criteria. The approach that considers higher education as a service industry and students as customers has gained considerable support in the literature [3, 7, 11], providing a guideline for this study. Providing a high level of service quality represents is considered to be a crucial determinant of competitiveness and success factor in the services sector [12] and the most powerful competitive weapon for most service organizations [13]. DeShields Jr. et al. [14] proposed a strategy that improves students' retention through high service quality, since high service quality improves customer satisfaction [15].

Both service quality and satisfaction have been key issues in the marketing literature, drawing the attention of researchers in higher education [16-19] over the past decades. However, the research of the relationship between service quality and satisfaction and their influence on students' behavioural intentions in STEM and IC higher education sector is rather limited [20]. Moreover, to the best of author's knowledge, research in this field with evidence from Croatia is extremely scarce. The research focused on the relationship between service quality and customer satisfaction is of great importance for service providers since they need to aim towards the delivery of the maximum possible level of perceived service quality and on satisfied customers [21]. In a wider marketing context, those premises should be considered amongst fundamentals for the sustainability of STEM and IC higher education institutions. The forestated provides ground for the research of the relationship between service quality, satisfaction and their accordance with students' behavioural intentions. The importance of attracting and retaining students in STEM and IC study area is of great importance due to the fact that STEM and IC expertise represents the essence of all modern and knowledge-based societies since technological innovations are the primary driver for economic growth [22, 23].

The purpose of this paper is to investigate the relationship between service quality perceived by STEM and IC students of the University of Rijeka Departments' (UniRi Depts.), their satisfaction and intention to spread positive word-of-mouth as a determinant of students' behavioural intentions. The essence of this study that points out its originality is the fact that this is believed to be the first study of this kind carried out among students at the University of Rijeka. Additionally, the fact that the questionnaire can be utilised in the majority of Croatian higher education establishments can be considered as an important value of this work.

The remainder of this paper is structured as follows. Evaluation construct and their relationships providing a conceptual framework for the proposed research hypotheses have been discussed first, followed by the description of research methodology. Subsequently, the main results have been presented, followed by the discussion that indicates limitations of the study and suggests a proposal for future research.

LITERATURE REVIEW

A framework of this study attempts to integrate the knowledge gained from research on service quality, student satisfaction and word-of-mouth intention as a determinant of behavioural intentions and to explore their relationship. Accordingly, the subjects presented in the following are: service quality, students' satisfaction and word-of-mouth intention as a determinant of behavioural intentions in sequence.

SERVICE QUALITY

Service quality, an abstract concept hard to define, is commonly explained by the service marketing researchers from the customers' perspective [24]. Since service quality is considered to be an important dimension of competitiveness [25], it became an important point of interest of researchers during the last two decades.

One of the most-cited definitions of service quality is the one relating to the comparison that customers make between their expectations and perceptions of service experience [26, 27], so if customer's perception is higher than customer's expectation, the perceived quality by the customer will higher, and vice versa. The primary characteristic of service quality is its commitment to measure how delivery service level matches customers' expectations, which contribute to customers' satisfaction [28]. According to Dedeke [29], service quality represents the capability to meet and exceed the results that the provider and the customer mutually defined and embraced at the beginning of a service encounter, which entails the need to conceptualise the term as cognitive, post-purchase phenomenon. The primary characteristic of service quality is its commitment to measuring how delivery service level matches customers' expectations, which contribute to customers' satisfaction [28].

From the preceding descriptions, in this research, students' perceived service quality can be defined as the students' subjective evaluation of the performance level of the services provided by the higher education institution, compared with their expectation level. Service quality in higher education institutions refers to a set of characteristics, dimensions and attributes that relate to the services they provide. The concept of higher education quality can be identified as a set of terms and conditions that should be available in the educational process to fulfil the students' needs and expectations. When measuring students' response to service quality, there are several rather important issues to be considered because their response is valuable for performance enhancement, including the teaching aspect and curriculum design [30].

STUDENTS' SATISFACTION

Students are considered the main customers among a number of customers and stakeholders of higher education institutions [31, 32]. Recent trends in higher education sector suggest the

importance for higher education institutions to measure quality of services they provide and monitor student satisfaction. According to Oliver [33], satisfaction may be described as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience".

Students' satisfaction can be predicted according to Maimunah, Kaka and Finch [34] by three factors, namely performance of trainers, services delivery, and support facilities, what is in accordance with Hill Lomas and MacGregor [35], who found in research on students' service quality experience that the lecturers and the support system are the most significant predictors of students' satisfaction. In conclusion, as primary customers, students' satisfaction determined by both academic and non-academic aspects, is crucial to the survival of any higher education institution.

Service quality is indicated as an essence for establishing and sustaining favourable relationship with customers and therefore it can be considered as an antecedent to satisfaction according to Bigne, Moliner and Sanchez [36]. In that sense, Elliot and Shin [37] and Ham and Hayduk [38] both confirmed the existence of a positive relationship between perceived service quality and student's satisfaction.

A literature review implies that higher education service quality is the key antecedent of students' satisfaction, suggesting that elevated level of perceived higher education service quality tends to increase students' satisfaction. Consequently, in a competitive higher education market, higher education institutions must strive to continuously improve the services they deliver to its students in order to meet their expectations and demands [39].

BEHAVIOURAL INTENTIONS

A primary concern to an organisation should be the behavioural intentions of its customers [40, 41]. Both quality and satisfaction have drawn the attention of researchers due to their linkage to customer loyalty. Loyal customers are more likely to buy additional goods and services and spread the favourable word of mouth communication according to Reichheld [42]. As defined by Oliver [43], loyalty implies „a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour". Businesses are mostly interested in consequences of loyalty, but since measurement of behavioural intentions has been usually more convenient, it gained the status of equivalent to loyalty and primary concern of researchers.

Numerous studies with strong theoretical arguments and empirical evidence identified a positive relationship between customers' satisfaction and behavioural intentions across different service industries (i.e. Cronin, Brady and Hult [44], Vilares and Coelho [45], Lai and Chen [46], Anderson and Mittal [47], Ibrahim and Najjar [48], Szymanski and Henard [49]. Satisfaction is therefore regarded as a significant determinant of behavioural intentions according to Bearden and Teel [50] and Ibrahim and Najjar [48]. This positive relationship also exists between overall satisfaction and positive word of mouth behaviour [51, 52]. There is also empirical evidence that as overall customer satisfaction increases, so does the customers' willingness to recommend the service provider to others [53, 54], and vice versa.

These generic findings have also been replicated in the specific context of higher education institutions. In the context of higher education, behavioural intentions relate to students' intentions to enrol higher level of studies within the same institution, spread positive impressions and recommend the higher education institution to other potential students.

Helgesen and Nesset [55] conducted a study that provides the evidence of positive impact of students'satisfaction on students' loyalty in Norway and Sultan and Wong [18] conducted a similar study in Australian higher education context. Ledden, Kalafatis and Mathioudakis [3] studied the relationship between students'satisfaction and willingness of satisfied postgraduate students to recommend study programmes. Hasan, Ilias, Rahman and Razak [56], Malik, Danish and Usman [57], Ham and Hayduk [38] and Bigne, Moliner and Sanchez [36] confirmed direct positive relationship between higher education SQ and SS. Dado, Taborecka Petrovičova, Riznić and Rajić [19] and Aljumaa [58] studied and confirmed indirect positive relationship between SQ and WOM through SS. However, the relationship between these key service evaluation constructs has scarcely been examined in Croatian STEM and IC higher education context.

METHODOLOGY

A framework was developed based on the extensive literature review, with the following variables: higher education institution's service quality (SQ), students' satisfaction (SS) and positive word-of-mouth (WOM), as the key determinant of students' behavioural intentions, shown in Figure 1., proposing hypotheses about their relationship, as follows:

H1: Perceived service quality has direct, positive and significant impact on STEM and IC students' satisfaction,
H2: Service quality perceived by STEM and IC students has direct, positive and significant impact on their positive word-of-mouth,
H3: Satisfaction of STEM and IC students has a direct, positive and significant impact on their positive word-of-mouth.
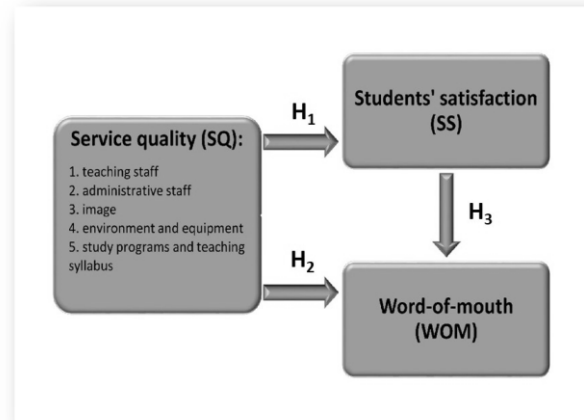

Figure 1. SQ-SS-WOM model, adapted from Legčević [59].

It was decided to develop a new measurement tool since many existing surveys do not include all important topics concerning the specific conditions of studying in STEM and IC study area at the UniRi Depts.

The survey method was used to explore the relationships of the study. The data were collected through an anonymous on-line self-administrated, structured questionnaire using a five-point Likert-type scale ranged from strongly disagree (1) to strongly agree (5). Perceived SQ dimensions (i.e. teaching staff, administrative staff, image, environment and equipment, study programmes and teaching syllabus) were measured using twenty four items adapted from Legčević [59] and SS at an institutional level that covers most aspects of students' life was assessed by four items adapted from Seng and Ling [60]. Positive WOM intentions were

assessed using three items adapted from Babin, Lee, Kim and Griffin [61], with statements concerning likelihood of saying positive things about the higher education institution, recommending it to a friend or a family member and probability of making the same choice if the student had to do it all over again.

The pre-tested questionnaire was administered to undergraduate and graduate STEM and IC students of the UniRi Depts. using Google Docs Forms. The survey was conducted in the period of two months during the middle of summer semester of the academic year 2014/2015. Amongst 873 students enrolled and surveyed in this study, 214 usable questionnaires returned, what is a response rate of 24,51 % what can be considered as an adequate sample size, since other scale developers in the marketing area used a sample size of 200 to analyse group data [62, 63].

For the data analysis, Statistica 12.7 software was used. After confirming the reliability and acceptability of the measurement model, Partial Least Squares Structural Equation Modelling using SmartPLS 3.0 software was applied to examine the relationship among SQ, SS students' intention to spread positive WOM, as an appropriate method that produces latent variable scores that can be used to predict a model, placing minimal limitations on the distribution characteristics and sample size [64].

Descriptive statistics was used to examine the respondents' demographic profile to evaluate perceived SQ, overall SS and intention to spread positive WOM. From the 214 respondents in this study, 140 (65,42 %) are female and 74 (34,58 %) are females. The calculated mean age of the respondents is 22, with the majority of the students being between 21 and 23 years old (48,60 %). The majority of the respondents are enrolled in the undergraduate study programmes (66,36 %), all of them are full-time students and most of them do not pay tuition fees due to the study success awarded by the Ministry of Science and Education of the Republic of Croatia (MSE) grants. The majority of the students are successful and have very good average grade during the study (46,26 %), followed by the good grade (29,44 %), excellent (18,22 %) and sufficient (6,07 %). This ratio characterises the student population in the UniRi Depts. that offer study programmes in the field of STEM and IC. Table 1. summarises the profile of respondents.

Table 1. Respondents' profile (*N* = 214).

	Sample demographics	Frequency	%
Gender	Male	74	34,58
	Female	140	65,42
Age	<21	50	23,36
	21-23	140	48,60
	>23	60	28,04
Study programme	Undergraduate	142	66,36
	Graduate	72	33,64
Tuition	MSE* grant	184	85,98
	students paying tuition fees	30	14,02
Average grade	Excellent (5)	39	18,22
	Very good (4)	99	46,26
	Good (3)	63	29,44
	Sufficient (2)	2	6,07

[*]MSE – Ministry of Science and Education of the Republic of Croatia

RESULTS

According to the descriptive statistics generated, both overall SS (mean 3,331) and students' intention to spread positive WOM (mean 3,553) are high, and the mean scores for all statements related to five SQ dimensions were above the value of 3.

Table 2. Results of data analysis.

Structural Equation	Path coefficient	Discriminant validity	STDEV	T	P
Total effects analysis:					
SQ → SS	0,766	0,737	0,027	29,256	0,000
SQ → WOM	0,690	0,652	0,057	0,228	0,819
SS → WOM	0,861	0,884	0,049	17,873	0,000
Indirect effects analysis:					
SQ → WOM → SS	0,660	0,652	0,050	13,600	0,000

The results obtained from the analysis of the path coefficients using a two-tailed t-test at 95% confidence level of each structural equation presented in Table 2., confirm positive relationships between variables in the proposed conceptual model. It was found that all path coefficients are significant (i.e. larger than 1,96) except "SQ – WOM" linkage. Perceived SQ has direct, positive and significant impact on SS, supporting H1. SS has a direct, positive and significant impact on WOM, thus supporting hypotheses H3. The value of the path coefficient in the "SQ – WOM" linkage was not significant (0,228), thus H2 was rejected, leading to the performance of indirect effects analysis resulting in path coefficient 0,660 with statistically significant T value of 13,600 at 0,05 confidence level. According to indirect effects analysis it was found that SQ has an indirect, positive and significant impact on WOM through SS.

CONCLUSION

This research aimed to study the relationships among SQ dimensions, SS and students' positive WOM for STEM and IC Croatian higher education context, and to provide statistical evidence for their significance. Based on the results and remarks of this study improvements can be planned across all dimensions of higher education service quality. Although students'satisfaction is more important determinant of future behavioural intentions (i.e. positive word-of-mouth), higher education service quality should not be neglected due to its positive indirect impact on students' behavioural intentions.

The results are consistent with similar studies confirming a direct positive relationship between higher education SQ and SS [36, 38, 56, 57], indirect positive relationship between SQ and WOM through SS [19, 58] and direct positive relationship between SS and positive WOM behaviours [19, 42, 65], which plays an important role in the decision-making process and makes an effective way for a higher education institution to recruit new students.

The findings can also be useful to the higher education institutions' management to quantify SQ and to show the path for future practices for higher education sector. Since data analysis resulted in high reliability and identifies strengths and weaknesses across SQ dimensions, higher education institutions can monitor SS as one of the key elements in creating and developing SQ as a key factor to attract, educate and retain STEM and IC students. Policy makers in the services industry in general and in the HE sector in particular, may benefit from the findings of this study.

The study was carried out among STEM and IC students of the UniRi Depts. only, what represents its limitation and its outcomes could not be generalised. The author kindly

suggests further research to cover a wider range of universities in Croatia, including private establishments, with study programmes in STEM and IC study area, and also in other branches of science study areas, so that a model with more conformity will be produced for planning to improve higher education SQ.

Due to the limitations of the study, as in case with other similar empirical research, its results should not be generalised. The essence of this study that points out its originality is the fact that it is believed to be the first study of this kind carried out among STEM and IC students in Croatia. Additionally, the fact that the questionnaire can be utilised in most higher education institutions, allowing the researchers and higher education policy makers to understand the benefits of measuring higher education service quality, makes this research a unique contribution to the services marketing literature. Further research is required to consider the perspectives of other higher education stakeholders. Finally, future studies are needed to extend our understanding of the importance of service quality evaluation, students' satisfaction and positive word-of-mouth, what seems to be rather important and rich area for further investigation.

ACKNOWLEDGMENT

REFERENCES

[1] Neef, D.: *The knowledge economy*.
Butterworth-Heinemann, London, 1998,

[2] UNESCO: *UNESCO Science Report: Towards 2030.*
UNESCO Publishing, Paris, 2016,

[3] Edden, L.; Kalafatis, S. and Mathioudakis, A.: *The Idiosyncratic Behaviour of Service Quality, Value, Satisfaction, and Intention to Recommend in Higher Education: An Empirical Examination.*
Journal of Marketing Management **27**(11-12), 1232-1260, 2011,
http://dx.doi.org/10.1080/0267257X.2011.611117,

[4] Emery, C.; Kramer, T. and Tian, R.: *Customers vs. Products: Adopting an Effective Approach to Business Students.*
Quality Assurance in Education **9**(2), 110-115, 2011,
http://dx.doi.org/10.1108/09684880110389681,

[5] Svensson, G. and Wood, G.: *Are University Students Really Customers? When Illusion May Lead to Delusion for All!*
International Journal of Educational Management **21**(1), 17-28, 2007,
http://dx.doi.org/10.1108/09513540710716795,

[6] Angell, R.J.; Heffernan, T.W. and Megicks, P.: *Service Quality in Postgraduate Education.*
Quality Assurance in Education **16**(3), 236-254, 2008,
http://dx.doi.org/10.1108/09684880810886259,

[7] Yeo, R.K. and Li, J.: *Beyond SERVQUAL: The Competitive Forces of Higher Education in Singapore.*
Total Quality Management and Business Excellence **25**(1-2), 95-123, 2012,
http://dx.doi.org/10.1080/14783363.2011.637802,

[8] Cuthbert, P.F.: *Managing Service Quality in HE: Is SERVQUAL the Answer? Part 1.*
Managing Service Quality **6**(2), 11-16, 1996,
http://dx.doi.org/10.1108/09604529610109701,

[9] Owlia, M.S. and Aspinwall, E.M.: *A framework for the dimensions of quality in higher education.*
Quality Assurance in Education **4**(2), 12-20, 1996,
http://dx.doi.org/10.1108/09684889610116012,

[10] Clewes, D.: *A Student-centred Conceptual Model of Service Quality in Higher Education.*
Quality in Higher Education **9**(1), 69-85, 2003,
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.466.8706andrep=rep1andtype=pdf,

[11] Narang, R.: *How do Management Students Perceive the Quality of Education in Public Institutions?*
Quality Assurance in Education **20**(4), 357-371, 2012,
http://dx.doi.org/10.1108/09684881211263993,

[12] Lewis, B.R.: *Quality in service sector–a review.*
International Journal of Brand Marketing, **7**(1), 4-12, 1989,
http://dx.doi.org/10.1108/02652328910134590,

[13] Berry, L.L.; Parasuraman, A. and Zeithaml, V.A.: *The service - quality puzzle.*
Business Horizons **31**(5), 35-43, 1988,
http://dx.doi.org/10.1016/0007-6813(88)90053-5,

[14] DeShields Jr., O.W.; Kara, A. and Kaynak, E.: *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, 2005,
http://dx.doi.org/10.1016/j.sbspro.2015.02.384,

[15] Johns, N.; Avci, T. and Karatepe, O.*: Measuring service quality of travel agents: evidence from Northern Cyprus.*
The Service Industries Journal **24**(3), 82-100, 2004,
http://dx.doi.org/10.1080/0264206042000247777,

[16] Barnes, B.R.: *Analysing Service Quality: The Case of Post-Graduate Chinese Students.*
Total Quality Management **18**(3), 313-331, 2007,
http://dx.doi.org/10.1080/14783360601152558,

[17] Stodnick, M. and Rogers, P.: *Using SERVQUAL to Measure the Quality of the Classroom Experience.*
Decision Sciences Journal of Innovative Education **6**(1), 115-133, 2008,
http://dx.doi.org/10.1111/j.1540-4609.2007.00162.x,

[18] Sultan, P. and Wong, H.: *Performance-based Service Quality Model: An Empirical Study on Japanese Universities.*
Quality Assurance in Education **18**(2), 126-143, 2010,
http://dx.doi.org/10.1108/09684881011035349,

[19] Dado, J.; Taborecka-Petrovičova, J.; Riznić, D. and Rajić, T.: *An Empirical Investigation into the Construct of Higher Education Service Quality.*
International Review of Management and Marketing **1**(3), 30-42, 2011,
http://www.econjournals.com/index.php/irmm/article/view/35/25,

[20] Swaid, S.: *Service Quality In STEM Higher Education: A Hierarchical Approach.*
Proceedings of the International Conference on Learning and Administration in Higher Education, Nashville, pp.300-307, 2014,

[21] Cronin, J.J. and Taylor, S.A.: *Measuring Service Quality: A Re-examination and Extension.*
Journal of Marketing **56**(3), 55-68, 1992,
http:// dx.doi.org/10.2307/1252296,

[22] European Commission: *Education and Training Monitor 2015 - Country Analysis.*
http://ec.europa.eu/education/tools/docs/2015/monitor15-country-sheets_en.pdf,

[23] Council of Independent Colleges: *Strengthening the STEM Pipeline: The Contributions of Mid and Small Independent Colleges.*
http://www.cic.edu/Research-and-Data/Research-Studies/Documents/STEM-Report. pdf,

[24] Abu, H.H.F. and Ilias, A.: *Service Quality and Student Satisfaction: A Case Study at Private Higher Education Institutions.*
International Business Research **1**(1), 163-175, 2008,
http://www.ccsenet.org/journal/index.php/ibr/article/viewFile/982/952,

[25] Lewis, B.R.: *Quality in service sector – a review.*
International Journal of Brand Marketing **7**(1), 4-12, 1989,
http://dx.doi.org/10.1108/02652328910134590,

[26] Grönroos, C.: *Strategic management and marketing in the service sector.*
Marketing Science Institute, Cambridge, 1982,

[27] Parasuraman, A.; Zeithaml, V. and Berry, L.: *SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality.*
Journal of Retailing **64**(1), 12-40, 1988,
http://ci.nii.ac.jp/naid/10011053911/en,

[28] Kang, G.D.; James, J. and Alexandris, K.: *Measurement of internal service quality: Application of the SERVQUAL battery to internal service quality.*
Managing Service Quality **12**(5), 278-291, 2002,
http://dx.doi.org/10.1108/09604520210442065,

[29] Dedeke, A.: *Service Quality: A fulfillment-oriented and interactions-centred approach.*
Managing Service Quality **13**(4), 276-289, 2003,
http://dx.doi.org/10.1108/09604520310484699,

[30] Nair, C.S.; Murdoch, N., and Mertova, P.: *Benchmarking the student experience: The offshore campus experience.*
The TQM Journal **23**(6), 585-597, 2011,
http://dx.doi.org/10.1108/17542731111175211,

[31] Mihanović, Z.: *The role of customers in higher education: Are students active stakeholders?.*
Market-Trziste **19**(1), 115-132, 2007,

[32] Abdullah, F.: *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, 2006,
http://dx.doi.org/10.1111/j.1470-6431.2005.00480.x,

[33] Oliver, R.L.: *Measurement and Evaluation of satisfaction processes in retail settings.*
Journal of Retailing **57**(3), 25-48, 1981,
http://doi.apa.org/psycinfo/1984-10995-001,

[34] Maimunah, S.; Kaka, A., and Finch, E.: *Factors that influence student's level of satisfaction with regards to higher educational facilities services.*
Malaysian Journal of Real Estate **4**(1), 34-51, 2009,

[35] Hill, Y.; Lomas, L. and MacGregor, J.: *Students' perceptions of quality in higher education.*
Quality Assurance in Education **11**(1), 15-20, 2003,
http://dx.doi.org/10.1108/09684880310462047,

[36] Bigne, E.; Moliner, M.A. and Sanchez, J.: *Perceived quality and satisfaction in multi service organizations: The case of Spanish public services.*
The Journal of Services Marketing **17**(4), 420-442, 2003,
http://dx.doi.org/10.1108/08876040310482801,

[37] Elliot, K.M. and Shin, D.: *Student Satisfaction: An Alternative Approach to Assessing this Important Concept.*
Journal of Higher Education Policy and Management **24**(2), 197-209, 2002,
http://dx.doi.org/10.1080/1360080022000013518,

[38] Ham, L., and Hayduk, S.: *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, 2003,
http://dx.doi.org/ 10.1023/A:1025882025665,

[39] Emiliani, M.L.: *Using kaizen to improve graduate business school degree programs.*
Quality Assurance in Education **13**(1), 37-52, 2005,
http://dx.doi.org/10.1108/09684880510578641,

[40] Ibrahim, H. and Najjar, F.: *Assessing the effects of self-congruity, attitudes and customer satisfaction on customer behavioural intentions in retail environment.*
Marketing Intelligence and Planning **26**(2), 207-227, 2008,
http://dx.doi.org/10.1108/02634500810860638,

[41] Malhotra, N. and McCort, D.J.: *A cross-cultural comparison of behavioral intention models.*
International Marketing Review **18**(3), 235-269, 2001,
http://dx.doi.org/10.1108/02651330110396505,

[42] Reichheld, F.F.: *The One Number You Need to Grow.*
Harvard Business Review **81**(12), 46-54, 2003,
http://relevantautomation.com/Portals/Relevant/NetPromoterScore_HBR.PDF,

[43] Oliver, R.L.: *Whence Consumer Loyalty?*
Journal of Marketing **63**, 33-44, 1999,
http://dx.doi.org/10.2307/1252099,

[44] Cronin Jr., J.J.; Brady, M.K. and Hult, T.M.: *Assessing the Effects of Quality, Value and Customer satisfaction on Consumer Behavioural Intentions in Service Environments.*
Journal of Retailing **76**(2), 193-218, 2000,
http://dx.doi.org/10.1016/S0022-4359(00)00028-2,

[45] Vilares, M.J. and Coelho, P.S.: *The Employee-customer Satisfaction Chain in the ECSI Model.*
European Journal of Marketing **37**(11/12), 1703-1722, 2003,
http://dx.doi.org/10.1108/03090560310495429,

[46] Lai, W.T. and Chen, Ch.F.: *Behavioural Intentions of Public Transit Passengers – The Roles of Service Quality, Perceived Value, Satisfaction and Involvement.*
Transport Policy **18**(2), 318-325, 2010,
http://dx.doi.org/10.1016/j.tranpol.2010.09.003,

[47] Anderson, E.W. and Mittal, V.: *Strengthening the satisfaction-profit chain.*
Journal of Service Research **3**(2), 107-120, 2002,
http://dx.doi.org/10.1177/109467050032001,

[48] Ibrahim, H. and Najjar, F.: *Assessing the effects of self-congruity, attitudes and customer satisfaction on customer behavioural intentions in retail environment.*
Marketing Intelligence and Planning **26**(2), 207-227, 2008,
http://dx.doi.org/10.1108/02634500810860638,

[49] Szymanski, D.M. and Henard, D.H.: *Customer satisfaction: A meta-analysis of the empirical evidence.*
Journal of the Academy of Marketing Science **29**(1), 16-35, 2001,
http://dx.doi.org/10.1177/009207030102900102,

[50] Bearden, W.O. and Teel, J.E.: *Selected determinants of consumer satisfaction and complaints reports.*
Journal of Marketing Research **20**(1), 21-28, 1983,
http://dx.doi.org/10.2307/3151408,

[51] Casaló, L.V.; Flavián, C. and Guinalíu, M.: *The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services.*
The International Journal of Bank Marketing **26**(6), 399-417, 2008,
http://dx.doi.org/10.1108/02652320810902433,

[52] Makarem, S.C.; Mudambi, S.M. and Podoshen, J.S.: *Satisfaction in technology-enabled service encounters.*
Journal of Services Marketing **23**(3), 134-144, 2009,
http://dx.doi.org/10.1108/08876040910955143,

[53] Namkung, Y. and Jang, S.S.: *Does Food Quality Really Matter in Restaurants? Its Impact On Customer Satisfaction and Behavioral Intentions.*
Journal of Hospitality and Tourism Research **31**(3), 387-410, 2007,
http://dx.doi.org/10.1177/1096348007299924,

[54] Zeithmal, V.A.; Berry, L. and Parasuraman, A.: *The behavioral consequences of service quality.*
The Journal of Marketing **60**(2), 31-46, 1996,
http://dx.doi.org/10.2307/1251929,

[55] Helgesen, Ø. and Nesset, E.: *What Accounts for Students' Loyalty? Some Field Study Evidence.*
International Journal of Educational Management **21**(2), 126-143, 2007,
http://dx.doi.org/10.1108/09513540710729926,

[56] Hasan, H.F.A.; Ilias, A.; Rahman, R.A. and Razak, M.Z.A.: *Service quality and student satisfaction: a case study at private higher education institutions.*
International Business Research **1**(3), 163-175, 2009,
http://dx.doi.org/10.5539/ibr.v1n3p163,

[57] Malik, M.E.; Danish, R.Q. and Usman, A.: *The impact of service quality on students' satisfaction in higher education Institutes of Punjab.*
Journal of Management Research **2**(2), 1-11, 2010,
http://dx.doi.org/10.5296/jmr.v2i2.418,

[58] Aljumaa, A.: *Investigating the Mediating Effect of Customer Satisfaction in the Service Quality–Word of Mouth relationship.*
International Journal of Business and Management Invention **3**(3), 40-45, 2013,

[59] Legčević, J.: *Linking higher education and economy as a role for regional development.*
3rd International Scientific Symposium, Economy of Eastern Croatia – Vision and Growth, Osijek, 2014,

[60] Seng, E.L.K. and Ling, T.P.: *A Statistical Analysis of Education Service Quality Dimensions on Business School Students' Satisfaction.*
International Education Studies **6**(8), 136-146, 2013,
http://dx.doi.org/10.5539/ies.v6n8p136,

[61] Babin, B.J.; Lee, Y.K.; Kim, E.J. and Griffin, M.: *Modeling consumer satisfaction and word-of-mouth: restaurant patronage in Korea.*
Journal of Services Marketing **19**(3), 133-139, 2005,
http://dx.doi.org/10.1108/08876040510596803,

[62] Parasuraman, A.; Zeithaml, V. and Berry, L.L.: *SERVQUAL: a multiple-item scale for measuring customer perceptions of service quality.*
Journal of Retailing **64**(1), 12-40, 1988,

[63] Marković, S.: *Students' Expectations and Perceptions in Croatian Tourism and Hospitality Higher Education: SERVQUAL versus UNIQUAL.*
South East European Journal of Economics and Business **1**(2), 78-96, 2006,

[64] Hair, J.; Black, W.; Babin, B. and Anderson, R.: *Multivariate Data Analysis.*
Prentice-Hall, Upper Saddle River, 2010,

[65] Athiyaman, A.: *Linking student satisfaction and service quality perceptions: the case of university education.*
European Journal of Marketing **31**(7), 528-540, 1997,
http://dx.doi.org/10.1108/03090569710176655.