ASSESSMENT OF THE SERVICE QUALITY IN THE PREPARATORY SCHOOL OF ECONOMICS THROUGH SERVPERF MODEL

Yahia-Berrouiguet ABDELKRIM¹⁵, Bensmain Abdessalem SALIM¹⁶

Abstract

The aim of this study is to apply the SERVPERF scale to measure student's perceived quality in preparatory school of economics. The SERVPERF model is based on five dimensions: tangibility, reliability, responsiveness, assurance and empathy . Operational measures of the quality service were collected from a sample of students at the preparatory school of economics in Tlemcen city.

Results revealed that service quality in the preparatory school of economics was more than moderate level based on SERVPERF model. The student perceived that the most important dimensions were responsiveness, empathy and assurance, followed by reliability and tangibility.

Keywords: Service quality, higher education, SERVPERF, preparatory school of economics, Algeria

JELClassification: L2

1. INTRODUCTION

A number of environmental forces are driving change within and across countries and their higher education. These changes have served to put the issue of service quality firmly on the agenda of many higher education institutions (Brooks & Becket, 2008). The student's perceived service quality in higher education is one of the most important issues in higher education institutions. Those institutions have to constantly monitor the higher education services in order to continuous improvements (Kontic, 2014).

In the context of globalization, the challenge for Algerian higher education system is to do more than dispense knowledge, to go further by introducing the

¹⁵ Faculty of economics and management sciences, Tlemcen University, Algeria

¹⁶ Faculty of economics and management sciences, Tlemcen University, Algeria

quality dimension focused on satisfying the needs of the labour market. One of the objectives of the Algerian higher education is to establish an efficient quality assurance system of education and research (MHESR, 2015).

The Algerian higher education system is constituted of institutions spread over the 48 provinces covering the entire country. This system comprises: (MHESR, 2015)

- 48 state owned universities.
- 10 university centers.
- 20 higher education national schools.
- 07 teacher training colleges.
- 12 preparatory schools.
- 04 integrated preparatory classes.
- 02 university annexes.

The aim of this study is to measure service quality by SEVPERF at the preparatory school of economics. This paper is organized as follows. Initially the review of literature on measuring service quality in higher education is presented, which is followed by an overview of the research methodology and finally, the research findings are then presented.

Measurement of Service Quality in higher education

There most popular models for measuring service quality in higher education are: SERVQUAL, SERVPERF and HedPERF. The SERVQUAL model was developed by Parasuraman et al (1988). This scale compares the level of perception against expectation; therefore, the service quality is gap between customer's expectations and performance perceptions. SERVQUAL has two parts that assess service quality: 22 items to measure customer's expectations and 22 items to measure perceptions. The items in the two parts have the same phrases divided into five dimensions:

- Tangibility: physical facilities, equipment and appearance of personnel.
- Reliability: ability to perform the promised service dependability and accurately.
- Responsiveness: willingness to help and provide prompt service.
- Assurance: knowledge and courtesy of employees and their ability to convey trust and confidence.
- Empathy: caring, individualized attention that a firm provides to its customers.

SERVQUAL model has been used in measuring service quality in higher education (Cuthbert, 1996; Oldfield & Baron, 2000; Snipes et al., 2006; Yeo,2008; Zafiropoulos and Vrana, 2008; Çerri, 2012; Cheruiyot and Maru, 2013; Yousapronpaiboom, 2014). SERVQUAL instrument has received criticisms. First, the 44 items of SERVQUAL increase the questionnaire's length. Second, the two administrations of the instrument cause boredom and confusion (Buttle, 1996).

The second model, Known as SERVPERF was developed by Cronin and Taylor (1992) in response to the criticism of the SERVQUAL model. The SERVPERF scale is simpler to manage which just measure the current level of quality service performance. This scale has 22 items divided into five dimensions: tangibility, reliability, responsiveness, assurance and empathy. Many researchers have preferred and used the SERVPERF in measuring service quality in higher education (Oldfield and Baron, 2000; Faganel, 2010; Kontic, 2014).

The third model, known as HEdPERF was developed by Firdaus (2005). This scale attempts to capture the authentic determinants of service quality within higher education sector. HEdPERF model consists of 41 items, 13 items adapted from SERVPERF, and 28 items generated from literature review (Firdaus, 2005). HEdPERF model has four factors as follows (Firdaus, 2006):

- Non-academic aspects: This factor contains variables that are essential to enable students fulfil their study obligations, and it relates to duties and responsibilities carried out by non-academic staff.
- Academic aspects: This factor represents the responsibilities of academics, and it highlights key attributes such as having positive attitude, good communication skill, allowing sufficient consultation, and being able to provide regular feedback to students.
- Reliability: This factor consists of items that put emphasis on the ability to provide the pledged service on time, accurately and dependably.
- Empathy: This factor relates to the provision of individualized and personalized attention to students with clear understanding of their specific and growing needs while keeping their best interest at heart.

2. METHODOLOGY

Our literature review on measuring quality in higher education revealed that the SERVPERF and HEdPERF are the most appropriate models to measure the quality in higher education. In this study, we choose the SERVPERF instrument to measure quality service for several raisons: first, the SERVPERF model is simpler and easy to use. Second, the students may become tired and non-objective when completing questionnaire with 41 items.

The study was conducted at the preparatory school of economics in Tlemcen city. The preparatory school of economics is public institution created in 2008 by the ministry of higher education. The aim of the school is to prepare students for their high academic studies. The quality of education is the most important objective in the preparatory school of economics. Table 1 shows the number of students.

Table 1. Number of students

| Year of | Number | of | Percentage % |
|-------------|----------|----|--------------|
| study | students | | |
| First year | 168 | | 56.57 |
| Second year | 129 | | 43.43 |
| Total | 297 | | 100 |

The population of the study was the second year students of the preparatory school of economics, this choice is because the second year students have the sufficient experience in the school and they can appreciate the quality. The research instrument is a questionnaire, a total of 129 questionnaires were distributed to second year students. The response rate was 50.39 % .

The questionnaire was consisted of 22 items in five dimensions: tangibility, reliability, responsiveness, assurance and empathy. However, the 22 items included in the study have been pilot tested and reduced from 22 to 19 (table 2). Students were asked to rate their perceptions of the items listed on a five-point likert scale from strongly disagree (1) to strongly agree (5).

Table 2. Number of items

| Dimension | Number of items |
|----------------|-----------------|
| Tangibility | 04 |
| Reliability | 03 |
| Responsiveness | 04 |
| Assurance | 04 |
| Empathy | 04 |
| Total | 19 |

The five categories of likert scale are represented by value of means, this representation is displayed in Table 3.

Table 3. Representation of the ranges of means

| Range of Mean | Representation |
|---------------|-------------------|
| [1;1.80[| Strongly Disagree |
| [1.80; 2.60[| Disagree |
| [2.60; 3.40[| Neutral |
| [3.40; 4.20[| Agree |
| [4.20;5] | Strongly Agree |

Internal consistency was examined by cronbach's alpha .Cronbach alpha was 0.74, which suggests that there is reasonable degree of internal consistency. Data analysis was conducting using SPSS software. Descriptive statistics were computed.

3. RESULTS AND DISCUSSION

| TT 11 4 3 4 | 1 1 | | ſ |
|-----------------------|----------|-------------|--------------|
| Table 4. Means ar | nd ranks | of service | nertormance. |
| I WOIC II ITICUIIO WI | 141110 | 01 001 1100 | perrorrance |

| Dimension | Mean | SD | Overall | Rank |
|----------------|------|-----|----------|------|
| | | | Response | |
| | | | (in | |
| | | | Mean) | |
| Tangibility | 3.26 | 0.7 | Neutral | 5 |
| | | 0 | | |
| Reliability | 3.34 | 0.9 | Neutral | 4 |
| | | 6 | | |
| Responsiveness | 3.82 | 0.7 | Agree | 1 |
| | | 4 | | |
| Assurance | 3.46 | 0.6 | Agree | 3 |
| | | 8 | J | |
| Empathy | 3.53 | 0.6 | Agree | 2 |
| | | 6 | - | |

Table 4 shows that the mean values ranged from 3.26 to 3.82. It appeared that not all the quality dimensions have the same degree. The level of quality service of preparatory school of economics is mid-high (agree) in responsiveness, empathy and assurance ranging from means of 3.53 to 3.82. On the other hand, the level of service quality is average (neutral) in reliability and tangibility. Respondents cited" Responsiveness" as the most important quality performance, and they cited" Tangibility" as the lowest quality performance.

The second year students ranked service quality dimension in following manner:

- Responsiveness
- Empathy
- Assurance
- Reliability
- Tangibility

-

Table 5 shows the detailed quality performance levels.

Table 5.Mean scores of items of service quality

| Dimensions and items | Mean | SD | Overall |
|-----------------------------|------|------|-----------|
| | | | Response |
| | | | (in Mean) |
| Tangibility | | | _ |
| The school has modern | 3.52 | 1.30 | Agree |
| and latest equipment. | | | |
| The appearance of the | 2.29 | 1.11 | Disagree |
| physical facilities of the | | | |
| school is attractive. | | | |
| Staff is well dressed and | 3.55 | 1.23 | Agree |
| neat in appearance. | | | |
| Library has the latest | 3.69 | 1.10 | Agree |
| literature in your area of | | | |
| interest. | | | |
| Reliability | | | |
| When something is | 3.43 | 1.31 | Agree |
| promised by a certain | | | |
| time, it always is provided | | | |
| by staff. | | | |
| When students have | 3.35 | 1.26 | Neutral |
| problems, staff is | | | |
| courteous, even if not | | | |
| able to help. | | | |
| | 3.23 | 1.04 | Neutral |
| services right at the first | | | |
| time. | | | |
| Responsiveness | | | |
| Staff is able to give | 3.62 | 1.29 | Agree |
| response to student | | | |
| requests. | | | |
| Service hours of learning | 3.58 | 1.07 | Agree |
| facilities accommodate all | | | |
| students. | | | |
| Staff is always willing to | 3.84 | 1.19 | Agree |
| help you. | | | |
| Administrative staff are | 4.20 | 1.05 | Strongly |
| never too busy respond | | | Agree |
| to student requests | | | |
| promptly. | | | |

| Assurance | | | | | | |
|-----------------------------|------|------|---------|--|--|--|
| Students trust staffs. | 2.93 | 1.21 | Neutral | | | |
| Students feel safe while | 3.30 | 1.14 | Neutral | | | |
| receiving services. | | | | | | |
| Staffs are courteous with | 3.60 | 1.11 | Agree | | | |
| students. | | | | | | |
| Professors have the | 3.98 | 0.89 | Agree | | | |
| knowledge to answer | | | | | | |
| students. | | | | | | |
| Empathy | | | | | | |
| | 3.07 | 1.25 | Neutral | | | |
| convenient office- hours | | | | | | |
| to advise student. | | | | | | |
| School provides personal | 3.03 | 1.13 | Neutral | | | |
| attention to every | | | | | | |
| student. | | | | | | |
| School has student's best | 3.90 | 1.26 | Agree | | | |
| interest as a major | | | | | | |
| objective. | 4.00 | | • | | | |
| | 4.09 | 1.14 | Agree | | | |
| specific needs of students. | | | | | | |

The three first items of "responsiveness" have mid-high (agree) and the last item has high level (strongly agree), this means that the school staff is perceived to be willing to assist and help students, this could be attributed to that the school is recently created and the managers are faced to a great challenge to success .

The two first items of "empathy" have average (neutral) and the two last items have mid-high (agree) , this means that the school staff is perceived to recognize the needs of its students and to have their best interests as a major objective , this could be attributed to that school receives excellent students and recognizes their specific needs.

The two first items of "assurance" have average (neutral) and the two last items have mid-high (agree), this means that the school personnel cannot be fully trusted but they are particularly polite and the professors have the knowledge to answer students. This could be explained by the rigorous selection in staff recruitment.

The first item of "reliability" has mid-high (agree) and the other items have average (neutral), this means that school staff can be trusted to do what it has promised correctly and timeously, but the culture of doing right for the first time is

not fully developed .This could be explained by the recent creation of the school and the implementation of quality culture require more time.

The second item of "tangibility" has mid-low (disagree) and the other items have mid-high (agree), this means that the school has modern and latest equipment , staff well dressed and the library has the latest literature; but the appearance of the physical facilities is not perceived as attractive, this could be attributed that the school building is in renovation.

CONCLUSIONS

The aim of this study was to apply the SERVPERF model to measure the service quality in the preparatory school of economics. The results showed that the service quality at the preparatory school of economics was more than moderate level (mid-high) from student's perceptions. This means there is a space for improvements.

The study revealed that not all the quality dimensions have the same degree. The level of quality service of preparatory school of economics was mid-high (agree) in responsiveness, empathy and assurance. On the other hand, the level of service quality was average (neutral) in reliability and tangibility. According to the students' perceptions, the most important quality performance was "Responsiveness" and the lowest quality performance was "Tangibility".

The second year students ranked service quality dimension in following manner:

- Responsiveness
- Empathy
- Assurance
- Reliability
- Tangibility

The school management team—should use the results of this study and the SERVPERF model to improve on their service offering. Therefore, the school administration should focus their efforts on improving their reliability and empathy in order to increase the quality service performance. The SERVPERF instrument can be used by other Algerian higher education institutions to measure and monitor their quality performances.

Acknowledgement

Authors acknowledge the anonymous reviewers for their valuable inputs.

Funding Information

No external funding was provided for this research.

Author's Contributions

Yahia-BerrouiguetAbdelkrim: is the main contributor of the paper.

BensmainAbdessalem Salim: collected data.

Ethics

No ethical conflicts will arise after publication of the paper.

BIBLIOGRAPHY

- [1] Calik, P., P. Yilgora, P. Ayhanb and A.S. Demir. 2004. Oxygen transfer effects on recombinant benzaldehydelyase production. Chemical Engineering and Science, 59 (22-23): 5075-5083. DOI:10.1016/j.ces.2004.07.070.
- [2] Brooks, M., Becket. N. 2008. Quality management in higher education: A review of international issues and practice, Journal of Hospitality, Leisure, Sport and Tourism Education 7(1): 40-54. DOI: 10.3794/johlste. 71.174.
- [3] Buttle, F.1996. SERVQUAL: review, critique, research agenda, European Journal of Marketing, 30(1): 8-32.DOI: 10.1108/03090569610105762.
- [4] Çerri,S.2012. Assessing the quality of higher education services using a modified SERVQUAL scale. AnnalesUniversitatisApulensis Series Oeconomica, 14(2): 664-679.
- [5] Cheruiyot, T.K, Maru, L.C. 2013 . Service quality and relative performance of public universities in East Africa, The TQM Journal, 25(5): 533 546. DOI: 10.1108/TQM-11-2012-0103.
- [6] Cronin, J. J. and Taylor, S.A. 1992. Measuring service quality: reexamination and extension. Journal of Marketing, 56(3): 56-68.
- [7] Cuthbert, P.F. 1996. Managing service quality in HE: is SERVQUAL the answer? Part 1, Managing Service Quality: An International Journal, 6(2):11-16. DOI: 10.1108/09604529610109701.
- [8] Faganel, A. 2010. Quality perception gap inside the higher education institution. International Journal of Academic Research, 2(1):213-215.
- [9] Firdaus, A. 2005. HEdPERF versus SERVPERF The quest for ideal measuring instrument of service quality in higher education sector. Quality Assurance in Education, 13 (4): 305-28.DOI: 10.1108/09684880510626584.
- [10] Firdaus, A. 2006. Measuring service quality in higher education: HEdPERF versus SERVPERF. Marketing Intelligence & Planning, 24 (1): 31-47.DOI: 10.1108/02634500610641543.
- [11] Kontic,L.2014.Measuring service quality in higher education: the case of Serbia, Proceedings of the international conference on management, knowledge and learning, 25-27 June, Portoroz, Slovenia, pp 645-654.
- [12] Ministry of Higher Education and Scientific Research (MESRS), www.mesrs.dz 2015.(Accessed on April 17, 2015).

- [13] Oldfield, B., & Baron, S. 2000. Student perceptions of service quality in a UK university business and management faculty. Quality Assurance in Education, 8(2): 85–95. DOI: 10.1108/09684880010325600.
- [14] Parasuraman, A. Zeithaml, V. A. and Berry, L. L. 1988. SERVQUAL: a multiple-item scale for measuring consumer perceptions of services quality. Journal of Retailing, 64(1): 12-40.
- [15] Snipes, R. L. Thomson, N. F. and Oswald, S. L. 2006. Gender bias in customer evaluations of service quality: an empirical investigation. Journal of Services Marketing, 20(4): 274-84.DOI: 10.1108/08876040610674616.
- [16] Yeo, R. K. 2008. Brewing service quality in higher education Characteristics of ingredients that make up the recipe, Quality Assurance in Education, 16(3): 266-86.DOI: 10.1108/09684880810886277.
- [17] Yousapronpaiboom, K. 2014. SERVQUAL: measuring higher education service quality in Tailand, Procedia-Social and Behavioral Sciences (116): 1088-1095. DOI: 10.1016/j.sbspro. 2014.01.350.
- [18] Zafiropoulos, C and Vrana, V.2008. Service quality assessment in a Greek higher education institute. Journal of Business Economics and Management, 9(1): 33–45.DOI: 10.3846/1611-1699.2008.9.33-45.