



Student Satisfaction on Service Quality: A Study at Malaysian Public University

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Abstract: Students will engage in informal learning outside the lecture hall in addition to the formal learning. The Universiti Tun Hussein Onn Malaysia (UTHM) Centre's for General Studies and Co-curriculum (PPUK) is a division that provides services focused on activities outside the lecture hall. Issues, particularly student satisfaction, become a critical concern for PPUK management as a result of these actions. The crucial element is determining the level of student satisfaction with PPUK's services where students have difficulty carrying out activities outside the lecture hall due to problems with the quality of services supplied by PPUK involving Credited Co-Curricular Courses (KKB) that the university has scheduled. As a result, if the services provided are unsatisfactory, which will have an indirect negative impact on the student's satisfaction as a student. The purpose of this study was to determine students' perceptions of satisfaction with the services provided by PPUK, UTHM based on the SERVQUAL Model's five dimensions (physical evidence, responsive, empathy, guarantee, and trustworthiness). The study is designed in the form of a survey, with data collected via a questionnaire. The researcher focused on UTHM students who registered for KKB in the second semester for this study. To answer the research questions, the data were analysed using the Statistical Package for the Social Sciences (SPSS) software to measure the frequency, mean score, t-test, and correlation of each element. Overall, the results show that students are extremely satisfied with the services provided by the PPUK UTHM. Other inferential and regression analyses will be investigated further and improved to the PPUK curriculum.

Keywords: Customer Satisfaction, Co-Curriculum, SERVQUAL

1. Introduction

The country's economic development encompasses a wide range of fields, including real estate, business, import and export, and a variety of other sectors, including the education sector, which is vital to the country. All of these sectors will be involved in some way by the services provided by the service provider to the customers who will be the recipients of the service. Services are viewed as a catalyst for an organization, such as those involved in education, banking, health, and hospitality, among others. Each organization has its own method of meeting customer needs, so customers can assess the differences in how their organization approaches customer needs. Customer satisfaction is essentially a requirement for an organization to satisfy customer expectations and understand their needs (Aburayya et al., 2020). It is the responsibility of every organization to provide the best service to customers and to identify their needs in order to provide customer satisfaction.

The relationship between the services provided and customer satisfaction has become a priority for all organizations because it will provide a reason to initiate matters involving the organization's administration (Kharuddin et al., 2020). As the situation involves customer satisfaction with their organization, all organizations will prioritize the impact of the quality of services provided. Customer satisfaction can benefit both parties by increasing tolerance between the organization and the customer, allowing the organization to give customers a sense of trust in order for them to repeat business with the organization (Tjiptono, 2014). Nowadays, the diversity of customer demand attracts various industries

that are growing their respective profits. Understanding customer demand is what will lead to the creation of a product or service (Suchánek & Králová, 2018). Service quality includes not only the service provided when dealing directly with customers, but also an understanding of customer expectations in order to provide the best service.

As for Malaysia that values education in shaping its people's identities, various departments in the educational sector play their roles to improve each student's soft skills. The success of an educational institution is measured not only by the success of undergraduate students, but also by how each organization within the institution manages the services it provides. This is also one of the government's intentions in instilling noble values in every citizen, hence why the government places such a greater value on education. As a result, the government, through the Ministry of Higher Education (MoHE, 2015), has outlined various education policies through Malaysia Education Blueprint 2015-2025 (Higher Education) to improve the quality of education in all educational institutions. Hence, this study investigates student satisfaction with the services provided by the Centre for General Studies and Co-curriculum (PPUK), Universiti Tun Hussein Onn Malaysia in the context of educational institutions (UTHM).

1.1 Background Problems

In UTHM, one of the departmental units that provide services to students to participate in co-curricular activities is PPUK, which manages clubs, associations, uniformed bodies, sports, and games. This activity will include curriculum activities that will take place outside of the lecture hall as well as activities that will take place inside the lecture hall. With a variety of activities managed by PPUK involving various core areas of the Credited Co-Curricular Course (KKB), which is one of the curriculum courses that all UTHM students must take as a condition of graduation, the management at PPUK must emphasize providing the best services to students where students can assess the extent to which the quality of services provided by PPUK. The majority of KKB classes that involve activities outside of the lecture hall have issues with the facilities available at the class site. According to Weerasinghe & Fernando (2018), a place that has good condition facilities and is usable for education should be carried out according to current needs.

Students who register for KKB in the semester of their preference may encounter issues with course registration, KKB selection, and credit exemption. Some students were dissatisfied because the KKB they selected had reached full capacity for registration during the semester. PPUK must deal with this issue in order to provide the best service possible to all students. Co-curricular activities are one of the courses that will apply the value of soft skills and be capable of forming a positive identity of values for students (MoHE, 2015; Rozali & Puteh, 2014). According to Esa, Yunus, & Kaprawi (2004), various skills, such as decision-making, problem-solving, group work, and communication are attempted to be formed through co-curricular activities.

An organization's management should understand the past experiences of customers while dealing with staff on duty in order to better understand their needs. Customer satisfaction is seen not only in the services provided while dealing with completion, but also before, during, and after the service is provided. There are numerous aspects or dimensions to service quality. As a result, a study on the quality of services that lead to activities outside the lecture hall was carried out in order to obtain research findings for the relationship between satisfaction and students on the quality of services provided by the party responsible for managing this matter, namely PPUK (Makruf, Suad, & Jakkrapan, 2021). Suchánek & Králová (2018) stated that if the services provided by an organization do not meet the expectations from the customers, then indirectly the customer will shift to different services from other organizations and this will cause losses to the initial organization that failed to provide satisfaction to customers. Every organization needs to learn how they can gain trust from customers by finding out the factors involved in providing customer satisfaction. One way is to look at the SERVQUAL Model released by Parasuraman, Zeithaml, & Berry (1988) as illustrated in Fig. 1 that describes the dimensions (physical evidence, responsive, empathy, guarantee, and trustworthiness) involved in providing satisfaction to customers.

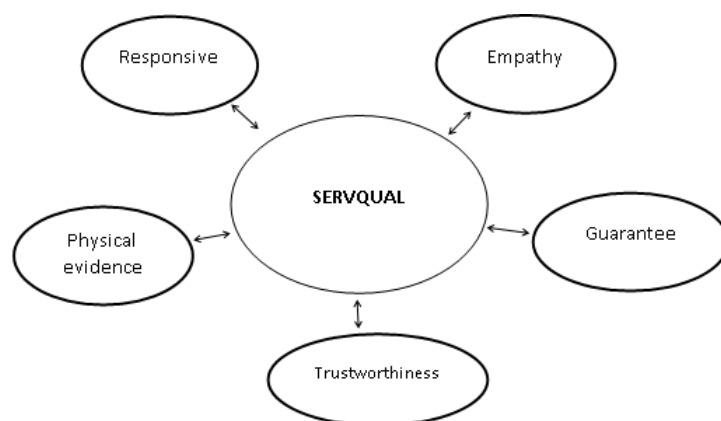


Fig. 1: Five Dimensions of the SERVQUAL Model Instrument

1.2 Research Objectives

The concept of education in Malaysia not only aims to produce students who only have a degree, but also wants to instill the values of holistic students in accordance with the needs of human capital who want to be produced through the National Education Philosophy (FPK). According to the Education Act of 1961, education is divided into two parts: classes with an academic curriculum and classes with co-curricular activities. Classes that involve co-curricular activities are MOHE's efforts in producing holistic students in line with the Malaysian Education Blueprint (MEB) 2015-2025 (Higher Education) (MoHE, 2015). This is relevant to the main function of the co-curriculum at UTHM, which aims to develop soft skills among students through experiential learning, which will be the primary cause of producing students with diverse skills and a balanced intellectual, spiritual, physical, social, and emotional development. PPUK is responsible for managing the KKB class, which indirectly affects the personalities of these students. As a result, this study was conducted to determine how students evaluate PPUK in managing these matters by identifying their perceptions of satisfaction with the services provided by PPUK based on the five SERVQUAL dimensions, namely physical evidence, reliability, responsiveness, reassurance, and empathy, which includes gender differences and their relationship.

2. Methodology

2.1 Research Design

This study focuses on respondents who are directly involved, namely students in their second semester of KKB at PPUK, UTHM. This study applied a survey method that made use of questionnaires as a medium. The survey method is appropriate for this study because data can be gathered quickly and easily, saving time and money. The appropriate method used in educational research, according to Creswell and Guetterman (2019), is a set of questionnaires aimed at obtaining information on facts, beliefs, and so on. The purpose of this research is to gather feedback from respondents and describe students' satisfaction with the services provided by PPUK. The study sample consisted of stratified randomly selected students, and the questionnaires were distributed during the KKB class. According to the Krejcie and Morgan (1970) sample size determination table, a total of 354 students were chosen as the study sample from a study population of 4500 students registered for KKB courses.

2.2 Research Procedure

Numerous measures have been planned prior to conducting the study to ensure that the study can proceed efficiently. Fig. 2 illustrates the operational framework of the research procedure that will guide the study's continuation. Initially, the research began by posing the issues that were the focus of this study. Researchers begin gathering information and deciding on a study design. Populations and samples will be chosen based on the characteristics of the issues being studied. The questionnaire items were built using existing SERVQUAL Model items that had been improved to fit the study's title. Prior to conducting the actual study, a pilot study was also carried out. Once the data has been gathered and analysed, the findings will be discussed and the study will be concluded.

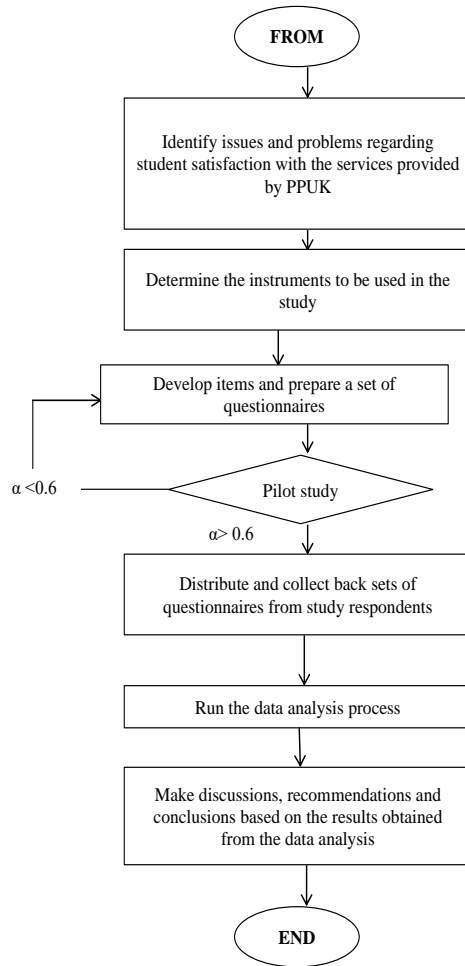


Fig. 2: Operational Framework of Research Procedure

2.3 Research Instruments

A questionnaire is a type of instrument used to collect feedback from respondents. To fit the study's objectives, the questionnaire items were built using the SERVQUAL Model's dimensions by Parasuraman, Berry, & Ziethaml (1985) supported by Weerasinghe & Fernando (2017). This questionnaire was distributed to respondents on Thursday, the official day for KKB classes. Questionnaires were distributed to all respondents who were chosen randomly in order to collect data and information for the study. Questionnaires are used to assist researchers in obtaining more relevant information in order to collect research findings in a more consistent way and to assess the reliability of a fact discovered in this study (Taherdoost, 2016).

Each question in the questionnaire form was accompanied by five answer options based on the Likert Scale. This consent scale is frequently used in questionnaires. Such a scale is more appropriate for determining the level of agreement of the respondents based on the stated level. As shown in Table 1, the Likert scale is divided into five levels: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. Researchers can choose to use a scale of 1 to 5 to refer to the feedback on each statement found in the set of questionnaires (Nemoto & Beglar, 2014).

Table 1: Questionnaire Likert scale

Score	1	2	3	4	5
Scale	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree

The questionnaire is divided into three parts, the first of which is Part A, which is looking at the demographics of the students as respondents. This section contains questions on students' backgrounds, such as gender, level of study, and KKB registered for the semester. Part B focuses on students' perspectives on PPUK services. This section contains questions on students' perceptions of PPUK services based on their own experiences. The SERVQUAL dimensions that

have been listed are used by students to evaluate PPUK services. Table 2 displays the question items that have been classified based on their dimensions.

Table 2: Part B Question Items

No.	SERVQUAL dimension	Question Item	Number of Question Items
1	Physical Evidence	1, 2, 3, 4, 5, 6, 7, 8	8
2	Trustworthiness	9, 10, 11, 12, 13, 14, 15, 16	8
3	Responsive	17, 18, 19, 20, 21, 22, 23, 24, 25, 26	10
4	Empathy	27, 28, 29, 30, 31	5
5	Guarantee	32, 33, 34, 35, 36	5
Amount			36

Part C addresses students' perceptions of PPUK management satisfaction. This question's items range from question 37 to question 41. In this study, student satisfaction is a dependent variable that is assessed using questions from the Part B items on service quality as an independent variable.

3. Results and Discussions

3.1 Pilot Study

After pilot research on numerous respondents who were used as a study sample, the questionnaire's reliability was determined to be at a consistent level. When the test value approaches 1.0, it means the test has a high level of validity and reliability. If the test value is close to 0.0, the result indicates that the questionnaire has a low level of dependability. The Cronbach's Alpha value measured in this regard was to test the questionnaire instrument whether had a level of reliability appropriate to the concept of the study (Wiersma & Jurs, 2005). The reliability analysis of the questionnaires distributed to students was performed for this study using SPSS software to test the level of consistency of the answers given. Before the actual study, 30 students from KKB core volunteerism and sports who participated in KKB activities over the weekend were chosen as data findings for the pilot study. The overall Cronbach's Alpha value for the questionnaire items as shown in Table 3 is 0.941, which indicates high reliability and can be used to conduct the study.

Table 3: Reliability of questionnaire items

No.	SERVQUAL dimensions	Cronbach's Alpha value	Number of Items
1	Physical Evidence	0.819	8
2	Trustworthiness	0.950	8
3	Responsive	0.878	10
4	Empathy	0.801	5
5	Guarantee	0.839	5
Overall		0.941	36

3.2 Demographic Results

A total of 354 sets of questionnaires obtained from students who registered for KKB in the second semester of their studies were analysed. The demographic information of the respondents was summarized as in Table 4.

Table 4: Demographic information of respondents

Demographic Information	Frequency
<u>Gender</u>	
Man	104
Women	250
Amount	354
<u>Level of study</u>	
Diploma	124
Bachelor	230
Amount	354
<u>KKB</u>	
1. PALAPES	20
2. SISPA	20

3. SUCCESS	20
4. RELASIS	20
5. Smooth	10
6. Choir	10
7. Kompang	10
8. Modern Music	10
9. Theatre	10
10. Community Service	20
11. Student Community Service	20
12. Marriage In Islam	10
13. Imam Dan Muazin	5
14. Peer Mentors	10
15. Self-Management	4
16. Event and Council Management	5
17. Public Speaking	10
18. Debate	10
19. Fundamentals of Journalism	10
20. Badminton	15
21. Handball	15
22. Netball	15
23. Football	15
24. Volleyball	15
25. Futsal	15
26. Return	15
27. Kayak	15
Amount	354

3.3 Analysis and Discussion on Level of Student Satisfaction

This analysis was conducted to distinguish the level of student satisfaction with the services provided by the PPUK. A descriptive statistical analysis was used to obtain the mean score for each SERVQUAL dimension of service items and also the mean score value for student satisfaction. To determine the level of student satisfaction with the services provided by PPUK, the questionnaire was divided into five dimensions of SERVQUAL, namely physical evidence, trustworthiness, responsive, empathy, and guarantee, as found in the question set survey in Part B. The mean score and standard deviation scores for each SERVQUAL dimension is shown in Table 5.

Table 5: Mean scores and standard deviations

No.	SERVQUAL dimension	Min Score	Standard deviation	Level
1	Physical Evidence	4.03	0.424	High
2	Trustworthiness	4.44	0.581	High
3	Responsive	3.84	0.349	High
4	Empathy	3.91	0.497	High
5	Guarantee	3.76	0.415	High
	Services	3.99	0.349	High

Analysis of the level of student satisfaction with the services provided by PPUK based on the SERVQUAL dimension showed that the mean scores of the five dimensions were at a high level as shown in Table 5. Based on the analysis that has been conducted, the reliability dimension shows the highest mean score value of 4.44 with a standard deviation value of 0.581. The lowest value is the guarantee dimension with a mean score value of 3.76 and a standard deviation of 0.415. Based on Table 5 above, the average for all dimensions refers to the services provided by PPUK. The average mean score value for the service is at a high level of 3.99 and the standard deviation is 0.349.

The study's findings indicate that student satisfaction with the services provided by PPUK is high. Students are not only satisfied with the administrative services provided by PPUK staff, but they also feel at ease when dealing with PPUK. This not only gives students confidence when dealing with PPUK, but it can also help PPUK management fulfil their responsibilities to students. The Malaysian Administrative Modernization and Management Planning Unit (MAMPU) has issued five guidelines in highlighting the discussion on service quality, namely as excellence and excellence, quality standards according to certain aspects, based on customer opinion, quality measurement in meeting

service specifications, and quality assessed through cost and price. These five guidelines describe the needs of consumers as something that is of importance in evaluating the quality of service. This also includes aspects of direct service to customers such as comfort, courtesy, sensitivity, and punctuality. The service must be in line with the accuracy of the standards and trust.

3.4 Analysis and Discussion on Student Satisfaction Differences Based on Gender

The analysis of differences in student satisfaction based on gender group is shown in Table 6.

Table 6: Student satisfaction T-test based on gender

Gender	N	Min	Standard deviation	t	Sig.
Men	104	20.91	2,461	0.852	0.395
Women	250	20.67	2,358		

Table 6 above shows the mean and standard deviation scores for male students (Mean = 20.91, Standard Deviation = 2.461) and female students (Mean = 20.67, Standard Deviation = 2.358). Referring to the analysis of this difference, there is no significant difference for male and female students in terms of student satisfaction with PPUK services based on the results of the T-Test which is 0.852 at a significant level of 0.395 ($p > 0.05$). Therefore, the hypothesis is accepted.

Referring to the results of the mean score analysis for each item of the questionnaire in Part C on student satisfaction with PPUK services involving male and female students, showed only a slight difference that male students are more satisfied with PPUK services than female students. However, referring to the analysis of these differences, there were no significant differences in gender demographic factors with respect to student satisfaction. Although the respondents are of different genders, their perception of satisfaction is almost the same towards the services provided by PPUK. This illustrates that gender factors do not play an important role in determining student satisfaction with PPUK services.

3.5 Analysis and Discussion on Relationship Between Student Satisfaction with The Services Provided by PPUK

This analysis was conducted to distinguish the relationship between student satisfaction with the services provided by PPUK based on the five dimensions of SERVQUAL, namely physical evidence, reliability, responsiveness, assurance, and empathy. Correlation analysis of Pearson was used to obtain the correlation values of each dimension as listed in Table 7.

Table 7: Correlation between SERVQUAL dimensions and student satisfaction

	Student Satisfaction	Physical Evidence	Trustworthiness	Responsive	Empathy	Guarantee
Student Satisfaction	1,000					
Physical Evidence	0.856	1,000				
Trustworthiness	0.823	0.670	1,000			
Responsive	0.376	0.330	0.429	1,000		
Empathy	0.636	0.540	0.567	0.518	1,000	
Guarantee	0.546	0.470	0.378	0.266	0.574	1,000

Referring to the Pearson correlation analysis in Table 7, there is a significant relationship between student satisfaction with the five dimensions of SERVQUAL, namely physical evidence, reliability, responsiveness, reassurance, and empathy. It can be seen that the level of strength of the relationship between student satisfaction with the two dimensions of SERVQUAL is at a very strong level for the dimension of physical evidence ($R = 0.856$, $n = 354$, $p < 0.01$) and the dimension of reliability ($R = 0.823$, $n = 354$, $p < 0.01$). While the responsive dimension ($R = 0.376$, $n = 354$, $p < 0.01$) describes it as well, it is a dimension with a weak relationship in demonstrating student satisfaction with PPUK. Referring to this table as well, it can be seen that the relationship between the dimensions of assurance and responsiveness has a weak relationship ($R = 0.266$, $n = 354$, $p < 0.01$). Based on the Pearson correlation value (R), table 7 shows that the R -value of each dimension is greater than the R -value of the Pearson correlation table for the number of respondents of 354 which is 0.098. Therefore, the said hypothesis is rejected. Based on the analysis of the data findings, it can be seen that a significant value or Sig. (2-tailed) is 0.000 smaller than 0.05. It can also be proven that there is a significant relationship between the student satisfaction variable with all SERVQUAL dimensions. The positive Pearson value, R in these data findings, shows the relationship between student satisfaction and the five dimensions of SERVQUAL is

positive. In other words, the higher the correlation value for each dimension, the higher the level of student satisfaction to PPUK. From the findings, some conclusions can be made involving the needs of students as customers to PPUK in managing one of the compulsory courses that must be taken by all students as a condition of eligibility for graduation.

The findings show the higher the correlation value for each dimension, reflecting the level of student satisfaction is also higher at PPUK. For the physical evidence dimension, the correlation relationship shown is very strong. Student satisfaction with this dimension is something that should be emphasized by PPUK because the suitability of the lecture room/training place with KKB chosen by students includes facilities and equipment that will be used by instructors to deliver content to students. Goetsch & Davis (2003) have stated that the emphasis on a product from the services provided is not only concerned with the result of the product but also emphasizes the quality itself, including process quality and environmental quality. This is in line with the assurance and responsiveness dimension that requires PPUK staff to pay more attention to the needs of students when they deal with PPUK.

4. Conclusion

These findings show that the administration at PPUK has provided the best services that can meet the needs and requirements of students. The administration should always co-operate and provide the best service. They should also ensure that the treatment provided is in accordance with the needs of students, because, according to Hwang & Choi (2019), management credibility in quality administration has a parallel relationship with service quality and student satisfaction. To achieve the objective of seeing student satisfaction is at the maximum level, the management of PPUK must always be sensitive to current developments as well as the wants and needs of students from time to time. The monitoring must be implemented to maintain contact with students and find out about the needs and requirements of students in the implementation of this KKB continuously. PPUK also needs to emphasize the concept of excellent work culture by continuing to strive to maintain the rate of employee performance through quality care in various aspects such as administrative management systems, human resources, and process capabilities in meeting the needs of students. Further investigation will look onto other inferential analyses and also improve the existing curriculum of PPUK.

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References

- Aburayya, A., Marzouqi, A., Alawadhi, D., Abdouli, F., & Taryam, M. (2020). An empirical investigation of the effect of employees' customer orientation on customer loyalty through the mediating role of customer satisfaction and service quality. *Management Science Letters*, 10(10), 2147-2158.
- Creswell, J. W. & Guetterman, T. C. (2019). *Educational research: planning, conducting, and evaluating quantitative and qualitative research*, (6th ed.). New Jersey: Pearson.
- Esa, A., Yunus, J. M., & Kaprawi, N. (2004). The implementation of generic skill through co-curriculum activity in polytechnic to fulfil the industrial demand: proposal paper. *Proceedings in First International Conference UPSI-UPI* (1-11).
- Goetsch, D. L., & Davis, S. B. (2003). *Quality management: introduction to total quality management for production, processing, and services*, (4th ed.). New Jersey: Pearson.
- Hwang, Y. S. & Choi, Y. K. (2019). Higher education service quality and student satisfaction, institutional image, and behavioural intention. *International Journal on Social Behaviour and Personality*, 47(2), 1-12.
- Kharuddin, A. F., Azid, N., Mustafa, Z., Ku Ibrahim, K. F., & Kharuddin, D. (2020). Application of Structural Equation Modeling (SEM) in Estimating the Contributing Factors to Satisfaction of TASKA Services in East Coast Malaysia. *Asian Journal of Assessment in Teaching and Learning*, 10(1), 69-77. <https://doi.org/10.37134/ajatel.vol10.1.8.2020>
- Krejcie, R.V. & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Makruf, A., Suad, S. U., & Jakkrapan, S. (2021). Analysis of School Committee's Role and Principal's Performance on Elementary School Quality. *Asian Pendidikan*, 1(2), 11-16. <https://doi.org/10.53797/aspen.v1i2.2.2021>
- Ministry of Higher Education (MoHE) (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education)*. Putrajaya: MoHE

- Nemoto, T., & Beglar, D. (2014). Developing Likert-scale questionnaires. In N. Sonda & A. Krause (Eds.), *JALT2013 Conference Proceedings*. Tokyo: JALT.
- Parasuraman, A., Berry, L., & Zeithaml A. (1985). SERVQUAL: a multiple scale for measuring customer perception of service quality. *Journal of Retailing*, 12-40.
- Parasuraman, A., Zeithaml, V. A., & Berry L. L. (1988). A conceptual model of service quality and its implication for future research. *Journal of Marketing*, 49, 41-50.
- Rozali, M. Z., & Puteh, S. (2014). Active involvement of students in co-curriculum (sports) towards the improvement of generic skills. *Proceedings of the Conference in Education – Technical, Vocational Education and Training* (841-852). Johor: Continuing Education Centre, UTHM.
- Suchánek, P. & Králová, M. (2018). Customer satisfaction and different evaluation of it by companies. *Economic Research-Ekonomska Istraživanja*, 31(1), 1330-1350.
- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in research. *International Journal of Academic Research in Management*, 5(3), 28-36.
- Tjiptono, F. (2014). *Service, quality & satisfaction* (3rd ed.). Yogyakarta: Penerbit Andi.
- Weerasinghe, I. M. S. & Fernando, R. L. S. (2017). Students' satisfaction in higher education. *American Journal of Educational Research*, 5(5), 533-539.
- Weerasinghe, I. M. S. & Fernando, R. L. S. (2018). University facilities and student satisfaction in Sri Lanka. *International Journal of Educational Management*, 32(5), 866-880.
- Wiersma, W., & Jurs S. G. (2005). *Research methods in education* (8th ed.). Boston: Allyn & Bacon.