

## Measuring the Service Quality Level at Higher TVET Institutes

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### Abstract

The competition among Higher Learning Institute (HLI) are very stiff. With the recent COVID-19 pandemic, the challenge to attract new student and to retain the current student is required more efforts and initiative from HLIs. Thus, it is very critical for HLI to maintain and improve the service quality to the students as main customer. The main objective of this study is to measure the level of service quality in Technical and Vocational Education and Training (TVET) HLIs. The second objective is to measure the link between service quality and student satisfaction. SERVQUAL Model has been used to measure the service quality level. This research using quantitative approach whereby data collection was done by using questionnaire. The sampling for data collection is withdrawn from final year student by using purposive sampling method. 398 of completed questionnaires have been analyzed by using SPSS and PLS-SEM. The results shows that service quality is marginally high. The highest contribution is Assurance and Reliability factors. Based on the structural model, it is revealed that the service quality has positive and significant effect on student satisfaction. This research can extended to measure the effect of Service Quality towards Student Loyalty.

**Keywords:** Service Quality, Student Satisfaction, Technical and Vocational Education and Training (TVET)

### INTRODUCTION

Higher Learning Institutions (HLIs) is a postsecondary school training, teaching at college of education, polytechnic and universities with the main goal of equipping individual person

with sound knowledge, creative ideas, skills and societal understanding (Usman & Mokhtar, 2016). In Malaysia, higher learning sector is one of the most important sectors and the competition is high in several aspect such as student intake and ranking. The competition among the HLIs providers is becoming more aggressive (Buang et al., 2017). To be competitive all HLI inclusive TVET HLI needs to improve the service quality quickly. This study focused at TVET HLIs to align with the ongoing concern of the government in improving TVET sector as per depicted in 11<sup>th</sup> Malaysia Plan. In addition, there are complaints from industries regarding quantity of supply and quality of TVET graduates. The government is planning for more graduate in higher TVET to fulfill the demand from industries. However, with the recent Covid-19 pandemic, the operation of HLIs are required adjustment. Due to this issues, it is justified to investigate the level of service quality from the perception of student as main customer to TVET HLIs. Many research previously revealed on the important of service quality. According to Dhananjay (2017). Service quality is an important constructs to determine customer satisfaction While, customer satisfaction is very critical for success and long term survival of organization (Zarei et al., 2015). Dissatisfied student will affect their loyalty. The student potentially quit the study which leads to contribution to negative record in attrition or drop out statistic for one institution, spreading negative word of mouth to others and discourage others to enroll in the institution (Nguyen, 2006).

In view of this, it is crucial for TVET HLIs to ensure the student's perception toward service quality provides by the university are excellent. In the current state, there are many institutions offering various kind of programs. The potential student to TVET HLIs has many options in the market. While, the existing student in the institutes may have options as well to switch or to further their education at next level to other institutes. With the recent Covid-19 Pandemic, almost all HLIs in Malaysia are impacted from the beginning process such as student registration to the end of study such as industrial training. In the new norm, the normal traditional ways of doing this have been replace by digitalization or online. For example registration day, welcoming and orientation week, student and parent briefing, class, coursework assessment and final examination. As service providers, TVET HLs is responsible to ensure that the service level at all processes are maintained or provides a better option to the students. In this situation and limitation, both parties which is institutes and student must quickly adapt with the changes. Otherwise, the perception toward service quality will perceived as poor and obviously it will affect the satisfaction level among the student. Thus, this study is sought to examine the effects of service quality toward student satisfaction in the context of TVET HLIs.

## **OBJECTIVES**

Based on the aforementioned problem, the main objectives of this research are as following.

RO 1: To measure the level of service quality at TVET HLIs

RO2: To measure the effect of service quality and student satisfaction at TVET HLIs.

## SCOPE OF STUDY

The main focus of this research is TVET HLIs under Council of Trust for the People (MARA). According to Ismail and Abidin (2014) the current TVET provision in Malaysia is concentrated at lower-level TVET. More focus should be concentrated at higher level of TVET. Malaysia Education Blueprint (2015-2025), also highlighted that more attention should be given to higher technical education in order to produce higher knowledge and skilled graduate to support industrial demand. MARA is a government link organization under Ministry of Rural and Regional Development (MoRRD), historically, is one of the pioneer in producing TVET graduate in Malaysia. There are three main sectors under MARA which is Education, Entrepreneur and Investment. Educational institutions managed by MARA are significant contributors to the development of technical and vocational and training (TVET), which include certificate level to degree level studies. This study focuses on TVET HLIs institutes under MARA higher education institute (IPMA) which is UniKL. As compared to other TVET provider under MARA, UniKL has the highest number of student which is more than 28,000 students and produced more than 40,000 graduates (MARA, 2016). Historically, UniKL has been established in year 2002 by MARA under private higher education. UniKL dominates the higher TVET in terms of number of enrolment, graduate and institutes. UniKL continues to progress to become a training institution of choice and aiming to elevate Malaysia TVET stature globally. In total, there are 14 UniKL institutes with unique specialization respectively. Selection of UniKL for this study is relevant and significant. First, UniKL is the most dominant higher TVET under MARA in terms of total enrolment (MARA, 2016). Second, UniKL as private TVET HLIs is very depending on tuition fees from the student for operational expenditure. Thus, increasing number of student either through new enrollment or from the alumni is very important. In conjunction with this, Wong (2016) highlighted that as a self-financed institution, the management must be able to enhance the educational services to the stakeholders. This is to ensure the satisfaction of stakeholders needs and wants (Kundi, Khan, Qureshi, Khan and Akhtar, 2014)

## LITERATURE REVIEW

### 2.1 Service Quality

Service quality has been discussed since 20th century. According to Ali et al., (2013), service quality helps organization to create differentiation and competitive advantage in an era of globalization. Meanwhile, according to Ali and Alolayyan (2013), a firm faces challenges in terms of innovation, creativity and intense competition. Thus, ensuring quality is crucial for business continuation in the market place. According to Grönroos (1984), quality must be evaluated by the users or consumers of the service. Service quality is regarded as very important dimension in business competitiveness (Ali et al., 2012). Several measurement instruments have been developed to capture and explain service quality dimensions such as SERVQUAL (Parasuraman et al., 1985; 1988), SERVPERV (Cronin and Taylor, 1994), Higher Education Performance or HEDPERF (Abdullah, 2006), EduQUAL (Mahapatra & Khan, 2007), Service Quality Measurement in Higher Education in India or SQM-HEI (Senthilkumar&Arulraj, 2011) and EDUSERVE (Ramseook-Munhurrin, Naidoo&Nundlall,

2010). Each of the instrument has its own pros and cons. It also remains to be a subject of argument among many authors. Dimensions of the service quality construct measured is differ depending on the subject, method and context of the study since service quality model has been used in many industries, for example banking, retail, tourism, public service and also in higher education. The application of service quality or SERVQUAL by Parasuraman et al., (1988) has been widely used in many service industries such as in hospitality (Mei et al., 1999), healthcare (Prabhakar,2014; Meesala& Paul, 2018), logistics (Juga et al., 2010), tourism (Kwok, 2015) and banking (Darmawan, Mardikaningsih and Hadi (2017); Kumar et al., 2010), higher education (Ibrahim, Rahman, &Yassin, 2014; and Mason, Mbambo, &Pillay, 2018).

According to Oldfield & Baron (2000), student normally assess the service quality after spending considerable time within the universities. Thus, their response to initial expectation will invariably be influenced by the current point of experience. The likelihood that student expectation may change during long period of study will cause inconsistency in the measurement of the different between expected and perceived quality aspect (Mahadzirah&Zainudin (2009). Therefore, using perceived service quality is most appropriate to measure service quality in the context of student to determine satisfaction and loyalty. In addition, Hoyer and MacInnis (2010) also highlighted that measuring expectation is not a must in determining satisfaction level. While Sultan and Wong (2011) attest that, perception-only measure of service quality is able to produce a better result. Perceived quality or performance is adequate to provide impact to satisfaction even though without having any prior expectation. This meant that customer's own perception towards service performance is the main factor determining the satisfaction level. Recent studies on the relationship between service quality, satisfaction and loyalty also adapted perceived quality as a construct (Subrahmanyam, 2016; Faizan, Yuan, Kashif et al., 2016; Qureshi et al. 2020)). Based on these studies, perceived service quality has positive effects on student satisfaction.

## **2.2 Student Satisfaction**

Base on the recent trend in higher education, student expected more from university especially in ensuring their teaching and learning are not disrupted due to Covid-19 Pandemic. Ensuring student satisfaction and stakeholders is a major challenge for HLIs (Onditi&Wechuli, 2017).Thus, HLIs needs to satisfy customers and stakeholders including students, alumni, parents, employers and government (Mahapatra & Khan, 2007). However student is the main customer for HLIs. It is important to measure student feedback on service quality. Earlier to this, William (2002) stated that even though it is risky to view students as customer, but given the atmosphere of higher learning market place, there is a new moral prerogative that student have become "customer" and therefore as a fee payers, reasonably demand that their views shall be heard and acted upon. Since student is considered as main customer among number of stakeholders, it is important to select them as measuring item to determine the level satisfaction towards service in HLIs (Abdullah, 2006). Student's response is very important as it represents their learning experience. Nair et al., (2011) added that student response is valuable for performance, enhancement, including the teaching aspect and

curriculum design. Satisfaction of student from university has direct and positive effect on their loyalty (Kheiry, 2012). Student satisfaction is important aspect for the competitiveness advantage and market positioning for any learning institution. Academic and non-academic factors are main factors that determine student satisfaction. Positive learning experience such as satisfaction with service quality in university will then result in student loyalty. Study by Khoo, Ha and McGregor (2016) in private higher institutes found that student satisfaction is strongly determined by the perceived service quality.

### **2.3 The link between Service Quality and Student Satisfaction.**

Service quality concept has been widely discussed in service marketing field. It measures the superiority or excellence in service delivery to customer (Zeithaml, 1988). Parasuraman et al., (1988), developed service quality dimensions, SERVQUAL model consisting of Tangible, Assurance, Responsiveness, Reliability and Empathy. Since then, many researches adopted SERVQUAL model to measure customer satisfaction in various industries such as banking, retail, tourism, hotel, transportation and higher learning. Previous studies have established the relationship between service quality and satisfaction. As such, higher quality of service will lead to higher satisfaction (Lai, Griffin, & Bablin, 2009). Student satisfaction is influenced by perceptions of product quality, service quality and price as well as the personal and situational factors (Usman and Mokhtar, 2016). The service quality will affect customer satisfaction from three dimensions according to Abu-EL Samen et al., (2011) which is overall satisfaction, functional satisfaction and technical satisfaction. Research in retail banking by Darmawan, Mardikaningsih and Hadi (2017), Dhananjay (2017) and Ngo and Nguyen (2016) found that service quality is the antecedence factor for customer satisfaction. In the context of higher learning, research by Austin and Pervais (2017), Subrahmanyam (2016) and Duque (2014) also found that perceived service quality affects the student satisfaction. While research by Rasli et al., (2011) has highlighted that, HLIs has to improve the level of service quality as it is confirmed to have direct relationship between service quality and student satisfaction in HLIs. Based on the issues and challenges in TVET HLIs such as curriculum, delivery, quality of instructor (teaching staff), lacking of efficiency and quality, weak monitoring and complaint from stakeholder as per highlighted by Phang (2011), Ibrahim, Rahman and Yasin, (2014) and Ahmad, Jalani and Hasmori (2015) there is a need for further investigation on the significant and direct effect of the relationship between service quality and satisfaction in TVET HLIs.

## **METHODOLOGY/MATERIALS**

### **3.1 Research Design.**

This research on the effects of service quality, corporate image on student satisfaction and loyalty in TVET HLIs adopting a hypothetical-deductive method. The hypothetical-deductive method provides a useful, systematic approach for generating knowledge to solve basic and managerial problem (Sekaran & Bougie, 2016). As per guideline in hypothetical-deductive method, there are seven steps which is identify a broad problem area, define the problem. The

purpose of this empirical quantitative study is to measure the effects of perceived service quality and corporate image on student satisfaction and loyalty. This study also intended to measure relationship between those constructs. Thus, survey questionnaire is the most appropriate instrument to access the variable of interest from targeted respondent. It is the most common data collection instrument (Sekaran & Bougie, 2016). In the questionnaire development, the desired analysis plan and type of scale needs to be identified accordingly. In developing the questionnaire design, it is important to ensure on the information relevancy, specific data needs and rationale for each item of information. Since this research is quantitative based, a set of questionnaire is developed that consists of five parts (Part A, B and C). Part A consist of demographic information. Demographic questions are related to the name of institute, name of the program, level of the programs, gender, race, age, current CGPA and choice. Overall, these eight demographic questions have sufficiently captured the demographic profile of the samples. Part B consists of measurement for service quality which is based on the SERVQUAL dimension (Tangible, Assurance, Responsiveness, Reliable and Empathy). Part C consists of measurement for satisfaction which covers overall student satisfaction. Scale 1 to 7 is used for the respondent to select in section B and C. Reliability test to all items in section B (28 items) and six items in section C has been conducted base on 50 pilot test respondent. The Cronbach Alpha (CA) reading is within the target range. Thus, the data collection was proceeded accordingly base on sampling and population criteria.

### **3.2 Population and Sampling.**

The population refers to the entire group of people, event or things of interest that researcher wish to investigate (Sekaran & Bougie, 2016). Total population of this study is the overall number of student from ten UniKL campuses which offer technical program. In this study, ten UniKL campuses were involved for data distribution and collection. Total target population that will be used for sampling calculation is 18079 students. From the total target population, sampling table Krejcie and Morgan (1970) is referred to determine the sampling size for each of campuses. The calculation was based on  $p = .05$  where the probability of committing a type I error is less than 5%, or  $p < .05$  (Chua, 2012). Since the reliability of instrument was assured based on pilot test result, the questionnaire was then distributed to the targeted respondents with the support by the lecturers in the class room. The targeted respondents are final year students from ten UniKL campuses. The respondents were informed that participation was voluntary. Based on Krejcie and Morgan (1970) the minimum requirement for sample is 375. Having in mind of potential of poor response issue, 431 questionnaires were distributed. As to ensure high return rate, questionnaire were distributed at early of the class and collected once it was completed by the respondent. Full data collection was done within two month. Thus there was no issue of late response in this study. In addition, missing and incomplete questionnaires were checked prior to data entry in SPSS. In total there are 398 complete questionnaires used for data analysis.

## RESULTS AND FINDINGS

### 4.1 Respondent's Profile.

Using descriptive statistics analysis, frequencies of demographic variables are obtained. Table 4.4 shows the origin of data collected from ten UniKL campuses. While Table 4.5 indicates the respondent's profile summary. In this study, respondents' profile was analyzed based on level of study, gender, age and CGPA. Degree student comprises 84.7% from the entire samples. The remaining of respondents are diploma student (15.3%). Male respondents are slightly higher than female respondents. The percentage is 54.8% and 45.2% respectively. In term of races, Malay respondents are dominant which is 95%. This is followed by Chinese (2.5%), Indian (0.8%) and others (1.7%). Since the majority of respondents are degree students, the percentage of respondent age 21-23 years old is higher than the other categories. 64.8% of respondents are from age 21-23 years old. Meanwhile, 22.9% are from age 18-20 years old. The lowest percentage is respondent from age above 26 years old. In terms of academic performance, majority of the students achieved CGPA 3.00-3.49 (41.2%). This is followed by 2.00-2.99 (32.4%), above 3.5 (25.9%) and below than 2.0 (0.6%).

### 4.2 Research Objective 1: Measuring Service Quality level at TVET HLIs using SERVQUAL

Descriptive analysis result to measure service quality are a table 1. Based on the analysis, it is discovered that all dimensions of SERVQUAL achieved mean more than 4.0 which can be classified as good. The highest mean is Assurance (5.463). This is followed by Reliability (5.131), Tangible (4.96), Responsiveness (4.871) and the lowest one is Empathy (4.697).

Table 1: Descriptive analysis for service quality.

Dimension	Details	N	Mean	Std. Deviation
Tangible	Employees are well dressed.	398	5.63	1.173
	Physical facilities are attractive.	398	4.64	1.359
	Comfortable class room.	398	4.95	1.241
	Up to date equipment.	398	4.68	1.473
	Up to date syllabus.	398	5.35	1.167
	Good internet access.	398	4.58	1.508
	Adequate academic resources in library.	398	5.01	1.302
	Appearance of physical facilities is suitable as university.	398	4.96	1.357
	<b>Average mean</b>		<b>398</b>	<b>4.975</b>
Assurance	Lecturer has good academic qualification.	398	5.93	1.099
	Security measures are good.	398	5.14	1.318
	Lecturer has good communication skills.	398	5.47	1.137
	Good communication skills through e-learning.	398	5.33	1.169

	Lecturer has good knowledge of the subject taught.	398	5.80	1.077
	Employees are polite.	398	5.10	1.116
	Lecturer has good academic qualification.	398	5.93	1.099
	<b>Average mean</b>	<b>398</b>	<b>5.463</b>	<b>0.873</b>
Reliability	Keeps its record accurately.	398	5.07	1.177
	Lecturer are punctual.	398	5.27	1.135
	Support staffs are sincere in solving student's problem.	398	4.77	1.449
	This university provides its service as per promised.	398	4.56	1.378
	Lecturer has good teaching capability.	398	5.64	1.059
	Lecturer has sincere interest in solving student's problem.	398	5.48	1.183
	<b>Average mean</b>	<b>398</b>	<b>5.131</b>	<b>0.944</b>
Responsiveness	Support staff are always available to assist you.	398	4.78	1.451
	Lecturers are always available to assist you.	398	5.42	1.141
	Lecturer's capacity to solve student's problem is good.	398	5.46	1.163
	There is good a channel to complaint.	398	4.50	1.507
	Queries by students are dealt with promptly.	398	4.34	1.542
	Response towards E-learning problem is fast.	398	4.72	1.319
	<b>Average mean</b>	<b>398</b>	<b>4.871</b>	<b>1.020</b>
Empathy	Support staff put student as best interest at heart.	398	4.36	1.450
	Support staff are willing to give student's individual attention.	398	4.38	1.432
	University is fair (unbiased) in their treatment to students.	398	4.54	1.457
	Lecturers are supportive to the need of individual student.	398	5.25	1.194
	Operating hour of this university is convenient.	398	4.95	1.424
	<b>Average mean</b>	<b>398</b>	<b>4.697</b>	<b>1.102</b>

### 4.3 Research Objective 2: The effect of service quality on student satisfaction.

To meet this objective, PLS-SEM has been used to assess the link between service quality and student satisfaction. In PLS-SEM, two main steps are involved which is measurement model and structural model (Hair et al, 2017). In summary, step by step of measuring model



for formative construct have been carried out. It passes the requirement of convergent validity (Step 1). It was found that reading of redundancy analysis for global items service quality and corporate Image exceeded the threshold of 0.7. It also passes collinearity checking (step 2) whereby all VIF values for 31 items of Service Quality and 9 items for corporate image obtained less than 5. Thus, there is no issue of collinearity. Assessment of significance and relevance of formative indicator (step 3) found that all indicators achieved outer loading 0.5. It passed according to the specification by Hair et al., (2017) whereby the ultimate decision to retain the indicators is referred to outer loading reading.

The next step is evaluating the structural model between service quality and student satisfaction. All related test such as collinearity assessment, outer and VIF value are with the expected target. Based on assessment of significance and relevance of the structural model relationships between service quality and student satisfaction, it is revealed that, the Path Coefficient value is 0.843, T-value is 46.934 which is exceeded the 1.96 target value and importantly the P-values is significant which is less than 0.05. Refer table 2.0

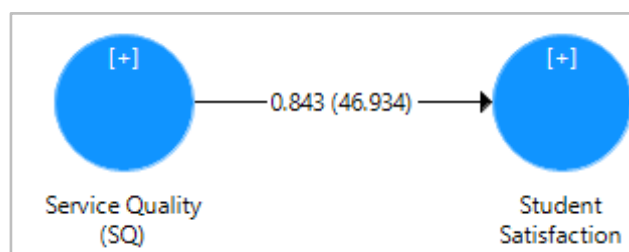


Figure 1.0 Structural model with bootstrapping

Table 2.0: Assessing the significant and relevance of structural model.

Hypotheses	Path Coefficients, $\beta$	T-Value (>1.96)	P Values (<0.05)	Supported?
Service Quality -> Student Satisfaction	0.843	46.934	0.00	Yes

Based result in table 2 above, it can be concluded that service quality has direct and significant effect on student satisfaction.

In alignment with the first research objective of this study, it was found that there is a direct relationship between service quality and student satisfaction. In addition, the direct relationship between the two constructs are significant. Based on data analysis using SmartPLS through bootstrapping procedure, it was found that the path coefficient value is 0.843. While the T-value (indicator of significance) is 46.934 which is higher than the threshold of 1.96 (at 95% confident level). Based on this result, it is concluded that service quality has significant and direct effects on student satisfaction. Initially this research objective and hypotheses is derived from the fact that service quality is an important antecedence for satisfaction. It is supported by recent research conducted by Meesala and Paul (2018), Dhananjay (2017) and Usman and Mokhtar (2016). From the result in this

research, it is confirmed that service quality is indeed an important factor in determining the satisfaction of the students in TVET HLIs. This is because service quality reflects the performance of service in one organization. In conjunction with that, Kotler (2010) highlighted that the performance of the product or service will affect satisfaction of customer. Previous researches in various industries such as tourism (Kwok, 2015), logistics (Juga et al., 2010), banking (Ali and Raza, 2015; Darmawan, Mardikaningsih, & Hadi, 2017) and healthcare (Meesala & Paul, 2018) also indicate that service quality will influence customer satisfaction. In the context of higher education, ensuring service quality is important as to ensure student satisfaction since they are the main stakeholders of the universities. Findings in this research is also consistent with previous studies in higher education by Austin and Pervais (2017) Subrahmanyam (2016) and Usman and Mokhtar (2016) This study is also aligned with research by Kuo and Ye (2009) and Fitri and Hassan (2008) in TVET HLIs whereby service quality has significant and direct relationship with student satisfaction. Based on the findings, it is concluded that service quality influenced student satisfaction in the context of TVET HLIs in Malaysia. There is no doubt that service quality is a critical construct in determining student satisfaction. Earlier research by Parasuraman et al., (1988), Cronin and Taylor (1992), Ibrahim, Rahman and Yassin (2014) and Subrahmanyam(2016) revealed that service quality influences customer satisfaction. Service quality is also considered as a catalyst for student satisfaction.

Moving forward, TVET HLIs need to look at the strength and weakness of service quality as per feedback by the students. Based on the descriptive analysis, the overall level of service quality is high. However, there are three service quality dimensions recorded below than slightly agree category which is empathy, responsiveness and tangible. While assurance and reliability recorded mean higher than slightly agree category. This finding is consistent with earlier research by Fitri and Hassan (2008) and Meesala and Paul (2018). Based on this result, the management of TVET HLIs needs consider to improve empathy, responsiveness and tangible dimensions. Since service quality is proven to have significant and direct effects on student satisfaction in TVET HLIs, necessary action need to be put in place as to further enhance the level of service quality. Descriptive analysis in chapter four highlighted that the management of TVET HLIs need to improve physical facilities, equipment, keep the promises, shows sincerity in solving student's problem, expedite the response when dealt with issue related to student, enhance channel to complain and support staff to show their best interest at heart during interaction with student. From other perspective, TVET lecturer is suggested to be encouraged to create a more healthy relationship with student since according to Dahri, Yusof and Chenedu (2018), it will improve level of student satisfaction and motivation. This becoming more critical since recently the teaching and learning is conducted through online. Lecturers and student are not met in person. Thus, there is a barrier in the communication which could lead to dissatisfaction among the student.

The above discussion provides a conclusive remark that the study conducted has managed to achieve the desired objective to examine the relationship and effect of service quality on student satisfaction in TVET HLIs. With appropriate action by the management, level of service quality will improve and therefore improving the level of student satisfaction as well.

As conclusion, this study has empirically revealed that service quality has significant and direct effects on student satisfaction.

## CONCLUSION

Maintaining and improving service quality is vital for each of TVET HLIs to sustain in this industry especially for private HLIs. Based on this study, student's perception towards service quality at UniKL is good in overall. However, the level of service quality required to be continuously improve especially on the digitalization of teaching and learning due to recent COVID-19 Pandemic. Furthermore, this study also revealed that the service quality has high influence on student satisfaction. Thus, there is no doubt that TVET HLIs needs to set up a strategy in improving the level of service quality as to increase the level of student satisfaction. The next level of study is to explore the effect of student satisfaction toward their loyalty with their HLIs.

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## REFERENCES (APA)

- [1] Abdullah, F. (2006a). 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.
- [2] Abu-EL Samen, A.A., Akroush, M.N., Al-Khawaldeh, F.M. & Al-Shibly, M.S., 2011, "Towards an integrated model of customer service skills and customer loyalty: The mediating role of customer satisfaction". *International Journal of Commerce and Management*, 21(4), 349-380.
- [3] Ahmad, M. J., Jalani, N. H., & Hasmori, A. A. (2015). TEVT di Malaysia : Cabaran dan Harapan. Seminar Kebangsaan Majlis Dekan-Dekan Pendidikan Awam 2015, (SEPTEMBER), 1–8.
- [4] Ali, K.A.M. and Alolayyan, M.N. (2013) 'The impact of total quality management (TQM) on the hospital's performance: an empirical research', *Int. J. Services and Operations Management*, 15(4), 482–506.
- [5] Ali, F., Omar, R., and Amin, M., (2013), "An examination of the relationships between physical environment, perceived value, image and behavioral Intention: A SEM approaches towards Malaysian resort hotels", *Journal of Hotel and Tourism Management*, 27(2), 9-22.
- [6] Ali, F., Khan, A. and Rehman, F., (2012), "An assessment of the service quality using gap analysis: A study conducted at Chitral, Pakistan", *Interdisciplinary. Journal of Contemporary Research in Business*, 4(3), 259-266.
- [7] Austin, A. J., & Pervais, S (2017). The Relation Between " Student Loyalty " and " Student Satisfaction " ( A case of College / Intermediate Students at Forman Christian College ), 7881(January), *European Scientific Journal* January 2017 /SPECIAL/ edition ISSN: 1857 – 7881 (Print) e - ISSN 1857- 743.

- [8] Buang, R., Majid, M., Wahab, M., Tohid, M., Abdullah, A., Adrutdin, K., Yacob, S., & Md Zahid, M. (2017). Factors Affecting Student's Intention to Study at Higher Learning Institution of Technical and Vocational Education and Training. *Australian Journal of Business, Social Science and Information Technology*, 2(1), 19-33.
- [9] Cronin, J.J., & Taylor, S.A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55–68
- [10] Cronin, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, 58(1), 125-131.
- [11] Dahri, S., Yusof, Y., & Chinedu, C. (2018). TVET lecturer empathy and student achievement. *Journal of Physics: Conference Series*, 1049(1).
- [12] Darmawan, D., Mardikaningsih, R., & Hadi, S. (2017). The effect of service quality, customer satisfaction and corporate image on customer loyalty in the banking sector in Indonesia. *International Journal of Business and Management*, 19(11), 46–51.
- [13] Dhananjay Madhukar Bapat, (2017), " Exploring the antecedents of loyalty in the context of multi-channel banking". *International Journal of Bank Marketing*, 35(2)
- [14] Duque, L.C (2013). A framework analyzing higher education performance: Student's satisfaction, perceived learning outcomes and dropout intentions. *Total Quality Management & Business Excellence Journal*, 25(1), 1-21.
- [15] E. O., & Wechuli, T. W. (2017). Service Quality and Student Satisfaction in Higher Education Institutions: A Review of Literature. *International Journal of Scientific and Research Publications*, 7(7), 328–335.
- [16] Faizan Ali, Yuan Zhou, Kashif Hussain, Pradeep Kumar, Nair Neethiahnanthan, Ari Ragavan (2016). Does Higher Education Service Quality effect student satisfaction? A study on international student in Malaysia Public University. *Quality Assurance in Education*, 14(3), 251–267.
- [17] Fitri HA, Ilias A, Abd Rahman R, Abd Razak MZ (2008) (2008). Service Quality and Student Satisfaction: A Case Study at Private Higher Education Institutions. *International Business Research Journal*, 1(3), 163–175.
- [18] FNair, C. S., Murdoch, N., & Mertova, P. (2011). Benchmarking the student experience: The offshore campus experience. *The TQM Journal*, 23(6), 585-597.
- [19] Hair, J.F., Hult, G.M., Ringle, C.M., and Sarstedt, M. (2017). *A primer on partial least squares structural modelling (PLS SEM)*. USA: Sage Publication, Inc.
- [20] Hoyer, W. D., & MacInnis, D. J. (2010). *Consumer Behavior* (5th ed.). USA: South-Western, Cengage Learning.
- [21] Hutcheson, Graeme and Nick Sofroniou (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. Thousand Oaks, CA: Sage Publications.
- [22] Ibrahim, M. Z., Rahman, M. N. A., & Yasin, R. M. (2014). Determining factors of students' satisfaction with Malaysian skills training institutes. *International Education Studies*, 7(6), 9–24.
- [23] Ismail, A. & Abiddin, N.Z., 2014. Issues and Challenges of Technical and Vocational Education and Training in Malaysia Towards Human Capital Development. *Middle-East Journal of Scientific Research*, 19, 7–11.

- [24] Juga, J., Juntunen, J. & Grant, D., 2010, "Service quality and its relation to satisfaction and loyalty in logistics outsourcing relationships", *Managing Service Quality*, 20(6), 496-510.
- [25] Kheiry, B. (2012). University intellectual image impact on satisfaction and loyalty of students (Tehran selected universities). *African Journal of Business Management*, 6(37), 10205–10211.
- [26] Kotler, P, & Amstrong (2010). *Principles of Marketing*, (13rd ed.). Prentice Hall, New Jersey.
- [27] Krejcie, R.V., D.W. Morgan, 1970. Determining Sample Size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- [28] Kumar, M., Kee, F.T. & Charles, V., 2010, "Comparative evaluation of critical factors in delivering service quality of banks: An application of dominance analysis in modified SERVQUAL model", *International Journal of Quality & Reliability Management*. 27(3), 351-377.
- [29] Kundi, G., Khan, M., Qureshi, Q., Khan, Y., & Akhtar, R. (2014). Impact of service quality on customer satisfaction in higher education institutions. *Industrial Engineering Letters*, 4(3), 23-28.
- [30] Kuo, Y.-K., & Ye, K.-D. (2009). The causal relationship between service quality, corporate image and adults' learning satisfaction and loyalty: A study of professional training programmes in a Taiwanese vocational institute. *Total Quality Management & Business Excellence*, 20(7), 749–762.
- [31] Kwok See Ying (2015). The mediation effect of value on experience and service quality towards satisfaction in Malaysian tourism industry. PhD Thesis. Universiti Teknologi Malaysia.
- [32] Mahadzirah, M., & Zainudin, A. (2009). Building Corporate Image and Securing Student Loyalty in the Malaysian Higher Learning Industry. *The Journal of International Studies*, 4(1), 30–40.
- [33] Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. *Journal of Retailing and Consumer Services*, 40(July), 261–269.
- [34] Mahapatra, S. S., & Khan, M. S. (2007). A neural network approach for assessing quality in technical education: an empirical study. *International Journal of Productivity and Quality Management Decision*, 2(3), 287-306.
- [35] MARA (2016). Annual Report. Retrieved May, 2018 from [www.mara.gov.my](http://www.mara.gov.my).
- [36] MARA (2017). Annual Report. Retrieved May, 2018 from [www.mara.gov.my](http://www.mara.gov.my)
- [37] Mason, R. B., Mbambo, S. N., & Pillay, M. A. (2018). Service quality at technical and vocational education and training colleges: Perception according to demographic factors. *Journal of Technical Education and Training*, 10(1), 15–29.
- [38] Mahapatra, S. S., & Khan, M. S. (2007). A neural network approach for assessing quality in technical education: an empirical study. *International Journal of Productivity and Quality Management Decision*, 2(3), 287-306.
- [39] Mei, A., Dean, A. & White, C., 1999, "Analyzing service quality in the hospitality industry". *Managing Service Quality*, 9 (2), 136-143.

- [40] Ngo, V. M., & Nguyen, H. H. (2016). The Relationship between Service Quality, Customer Satisfaction and Customer Loyalty: An Investigation in Vietnamese Retail Banking Sector. *Journal of Competitiveness*, 8(2), 103–116.
- [41] Nguyen, N. (2006). The Collective Impact of Service Workers and Servicescape on the Corporate Image Formation. *International Journal of Hospitality Management*, 25(2), 227-44.
- [42] Oldfield, B.M., & Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. *Quality Assurance in Education*, 8(2), 85–95.
- [43] Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1988), SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality, *Journal of Retailing*, 64(1)12–40.
- [44] Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985), A conceptual model of service quality and its implications for future research, *The Journal of Marketing*, 41-50.
- [45] Prabhakar Kalepu, R.N., 2014. Service quality in healthcare sector: an exploratory study on Hospitals. *International Journal of Marketing and Management*. 13 (1), 7–28.
- [46] Ramseook-Munhurrun, P., Naidoo, P., & Nundlall, P. (2010). A proposed model for measuring service quality in secondary education. *International Journal of Quality and Service Sciences*, 2(3), 335-351.
- [47] Rasli, A., Danjuma, I., Yew, L., & Igbal, M. (2011). Service quality, customer satisfaction in technology-based universities. *African Journal of Business Management*, 5(15), 6541-6553.
- [48] Raza, M. A., Siddiquei, A. N., Awan, H. M., & Bukhari, K. (2012). Relationship between Service Quality, Perceived Value, Satisfaction and Revisit Intention in Hotel Industry. *Interdisciplinary Journal of Contemporary Research In Business*, 4(8), 788-805.
- [49] Sekaran, U & Bougie, R (2016). *Research Method for Business*. 7th Edition, John Wiley & Son, UK.
- [50] Sultan, P. and Wong, H.Y. (2011), “Service quality in a higher education context: antecedents and dimensions”. *International Review of Business Research Papers*, 7(2), 11-20
- [51] Subrahmanyam Annamdevula, (2016), "The effects of service quality on student loyalty: the mediating role of student satisfaction", *Journal of Modelling in Management*, 11(2).
- [52] Susie Khoo, Huong Ha, Sue L.T. McGregor, (2017) "Service quality and student/customer satisfaction in the private tertiary education sector in Singapore", *International Journal of Educational Management*, 31(4), 430-444.
- [53] Qureshi, Muhammad Imran, Nohman Khan, Syed Muhammad Ahmad Hassan Gillani, and Hamad Raza. 2020. “A Systematic Review of Past Decade of Mobile Learning: What We Learned and Where to Go.” *International Journal of Interactive Mobile Technologies* 14(6):67–81.
- [54] Usman, U., & Mokhtar, S. (2016). Mediating Effect of Satisfaction on Service Quality, Image and Student Loyalty in Higher Education. *Journal of Business and Management*, 18(3), 102–108.

- [55] Wong, A. (2016). Student Satisfaction and School Reputation: The Moderating Role of Student Loyalty and School Image. *Journal of Marketing and HR*, 2(1), 113–125.
- [56] Zarei, E., Daneshkohan, A., Pouragha, B., Marzban, S., & Arab, M. (2014). An Empirical Study of the Impact of Service Quality on Patient Satisfaction in Private Hospitals, Iran. *Global Journal of Health Science*, 7(1), 1–9.
- [57] Zeithaml, V.A. (1988), “Consumer perceptions of price, quality and value: A means-end model and synthesis of evidence”, *Journal of Marketing*, 52, 2-22.

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Your entire submission (including references) is a single-spaced in font size 10 with margin of 2.5cm.

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Constructs and variables are identified in words, not abbreviations.

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O'Reilly, C., R. Snyder and J. Boothe (1993). 'Effects of executive team demography on organizational change'. In: G. Humber and W. Glick (eds.), *Organizational Change and Redesign: Ideas and Insights for Improving Performance*, pp. 147-175. New York: Oxford.

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