Exploring Mediating Role of Corporate Image between Service Quality and Student Loyalty using PLS-SEM

Sallaudin Hassan, Rahmat Roslan Buang, Mohamad Ikbar Wahab, Mohamad Farid Shamsudin, Muhamad Asyraf Hasim

Abstract: The demand on high skill graduate shows increasing trend in the context of Malaysia. Current supply of higher skill graduate is in adequate to support the industry. Thus, the government expected that, the number of student enrolment in higher Technical and Vocational Education and Training (TVET) institutions to be increased. Recent studies highlighted that service quality and corporate image are two critical factors that influence student loyalty. However, the mediating effect of corporate image has given less attention in the previous research. Thus, the purpose of this research is to explore the mediating effect of corporate image on the relationship between the service quality and student loyalty. The scope of this study is final year student of higher TVET universities. 398 of completed questionnaires were analyzing using SPSS and Smart-PLS. The measurement model shows that all constructs are reliable. While the structural model result showed that there is a direct and significant effect of corporate image on the relationship between service quality and student loyalty. The mediating test indicates that there is a partial mediation of corporate image on the relationship between service quality and student satisfaction. Future research is suggested to explore in depth on other factors that could have mediate the relationship between service quality and student loyalty.

Index Terms: Service quality, corporate image, student loyalty, Technical and Vocational Education and Training (TVET), higher education.

I. INTRODUCTION

Recent development in TVET steam shows very encouraging trend in term of demand of technical graduate from the industry.

According to the 11th Malaysia Plan, TVET is expected to increase the enrolment by year 2020 as to align with industry demand. It also highlighted that the service quality needs to be improved as improved the quality of the graduate.

Sallaudin Hassan*, Department of Quality Engineering, Universiti Kuala Lumpur (UniKL), Johor Bahru, Johor, Malaysia

Rahmat Roslan Buang, Department of Quality Engineering, Universiti Kuala Lumpur (UniKL), Johor Bahru, Johor, Malaysia

Mohamad Ikbar Wahab, Department of Quality Engineering, Universiti Kuala Lumpur (UniKL), Johor Bahru, Johor, Malaysia

Mohamad Farid Shamsudin, Department of Marketing, Universiti Kuala Lumpur (UniKL), School of Business (UBIS), Kuala Lumpur, Malaysia

Muhamad Asyraf Hasim, Department of Marketing, Universiti Kuala Lumpur (UniKL), School of Business (UBIS), Kuala Lumpur, Malaysia

At the same time, TVET institution is facing a stiff competition among the higher education players. Specific to TVET stream alone, there are more than 1000 providers available in the market [1].

Based on the current scenario, higher TVET universities have to aggressively improving the level of service quality and image. Service quality has received increasing the attention in higher education sector since the 9th Malaysia Plan. According to [2], the management of higher education institute is responsible to ensure service quality to the students. From other perspective, to compete with other organizations, the organization needs to improve the corporate image [3]. Thus, TVET institutions have to increase service quality and corporate image since it will influence student's loyalty. There no doubt that, maintaining student's loyalty is very important. Loyal student will retain in the university until completion [4] reduce the number of student's quit, help in communicating good thing about the institutes [5] and persuade others to join the institute [6]. Reference [7] strongly emphasized on the important of ensuring student satisfaction as they are the major customer. Dissatisfaction of student towards HLI indicates there are lacking in the management of HLIs. It required to be fixed quickly by the management. Past studies put more emphasize on the link between service quality, corporate image and loyalty. Area that has been inadequately addressed is the mediating in between service quality and loyalty.

Thus, below is the aim of the study.

RO1   To assess the effect of service quality on student loyalty.

RO2   Second, to assess the effect of service quality on corporate image.

RO3   To assess the effect of corporate image on student loyalty.

RO4   To examine the mediating role of corporate image between service quality and student loyalty.

II. LITERATURE REVIEW

Relationship service quality and student loyalty

The discussion on service quality in higher education is focus on student as the main stakeholder. Based on past literature review, there are several measurement of service quality. In the context of this study, perceived service quality is measured using SERVQUAL model [8].

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The five dimension that forming SERVQUAL model consist of tangible, assurance, responsiveness, reliability and empathy. Basically, SERVQUAL is selected as model for measurement since it is able to comprehensively measure quality of service. Table 1 shows the dimension and explanation of SERVQUAL.

Table. 1 Dimension and explanation of SERVQUAL

No	Dimension	Explanation
1	Tangibles	Refer to of building, lab, tools, people, and equipment and communication tools.
2	Reliability	Is the capability to deliver the task as per promised to the customer.
3	Responsiveness	Ready to support customer and response is fast.
4	Assurance	Is basically the knowledge and courtesy of employees and their ability to inspire trust and confidence
5	Empathy	is about caring, individualized attention to the customer.

This model is widely applied in several industries. However, the content might vary to suite the nature of the industry. Studies by reference [9] highlighted that service quality affect student's loyalty. While studies by [10], [11], and [12] revealed that there is relationship between service quality and image of the organization.

Relationship between corporate image and student loyalty

Image is involved the entire perception of customer based on their feeling and experience [13]. Reference [14] highlighted that image will determined the assessment of customer towards the company. It will eventually help in differentiating strategies [15]. Image dimension can be classified to overall image, university image and reputation. Good reputation will enhance corporate image of one institution [16]. TVET institution is facing image issue whereby it is always linked with second option and not attractive. The reputation of TVET institution also is perceived as not as good as normal academic stream such as public universities. Thus the government through Malaysia Plan has put initiatives to increase the corporate image of TVET institutions in Malaysia. For example, the recognition by Malaysian Board of Technologist (MBOT).

Student Loyalty

Customer loyalty linked between behaviors towards product or service and re-purchase [17]. In this research, customer's loyalty refers to the level of student's loyalty toward the HLI. Based on current competition level among the HLI, they should ensure the loyalty of student. Only loyal student will continue the program until completion, encourage others and tell positively about the universities. Student's loyalty can also be viewed from the perspective of student's intention to leave the university [18] Research by reference [19] and [20] found that there is a relationship between corporate image and student's loyalty. However, the research in TVET institution is found inadequately addressed.
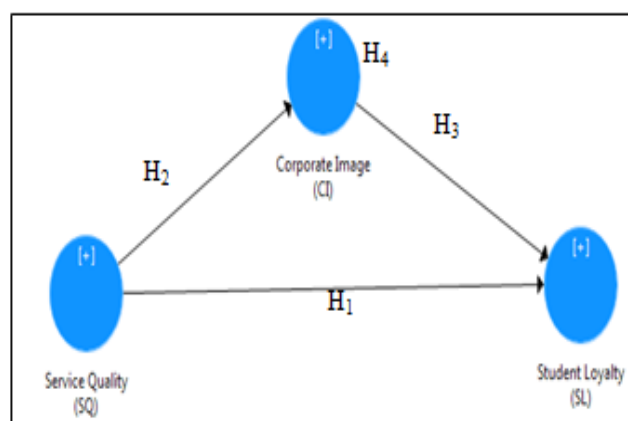
Mediating effect of Corporate Image

Corporate image is impacted by customer perceptions [21]. This research focused on mediating effect of corporate image between service quality with satisfaction and student loyalty. As per previously literature review, service quality is strongly influence the corporate image of the service provider firm [22].

In addition, the higher level of service quality (functional or technical) will increase the level of corporate image of the organization. From another angle, there is also relationship between service quality and customer loyalty in service industries [23]. Thus, corporate image always appears as one of the variables with the greatest direct influence on loyalty [24]. Earliest study by [25], there is positive relationship between corporate image of university with student loyalty. However, these studies did not extent the investigation on the mediating effect of corporate image. Thus, it is important to extend the study on the mediating effect of corporate image between service quality with student satisfaction and loyalty in TVET.

Based on the extensive literature review, figure 1 shows the research framework of this study.

Fig. 1 Research Framework of the mediating effect of corporate image

Four hypotheses have been developed as following

H₁ Service quality has significant and direct effect with student loyalty.
H₂ Service quality has significant and direct effect on corporate image.
H₃ Corporate image has significant and direct effect on student loyalty.
H₄ Corporate image mediates the relationship between service quality and student loyalty.

III. RESEARCH METHODOLOGY

This study is a fundamental type of research where the main purpose is to generate and contribute to body of knowledge. The research philosophy underlying in this study is positivist epistemology where it deals with nature of knowledge, justification and the rationality of belief. This research adopting hypothetical-deductive method. The hypothetical-deductive method provides a useful, systematic approach for generating knowledge so solve basic and managerial problem [26].

Since this is a quantitative research, survey questionnaire was developed for data collection. The five part of questionnaire as per below summary in table 2.

Table. 2 Questionnaire summary

Part	Description	Number of item
A	Demographic	8
B	SQ	31
C	CI	9
D	SL	6

The questionnaire was developed based on adaptation from past studies by several scholars whereby reliability and validity have been tested. The original the structure of questions has been revised to suite with the context of higher TVET. The pilot test has been conducted and the result showed that the Cronbach's Alpha (CA) reading is more than 0.7. CA for service quality is 0.943. CA for corporate image is 0.947 and CA for student loyalty is 0.910. In total, there were 431 of questionnaires were distribute to final year student from ten higher TVET universities under People's Trust Council (MARA) higher education institutes in Malaysia. Sampling frame was developed bas on stratified sampling method. 398 of completed questionnaire were collected and analyzed using SPSS and Smart PLS 3.0.

IV. DISCUSSION OF FINDINGS

Once raw data was completely been keyed in SPSS data base, checking for missing data was conducted. There was no missing data and reversed coding found. Subsequently, data analysis was done using Smart-PLS 3.0. According to reference [27] the analysis if Structural Equation modelling involve two major step which is measurement model and structural model. The result is as following.

Stage 1: Measurement model

Table. 3 Summary of measurement model result

Type	Steps
Formative: Service Quality (SQ) and Corporate Image (I)	Step1: Convergent Validity (redundancy Analysis) Result: Achieved thresh hold of 0.7. SQ=0.798, CI =0.790]
	Step 2: Collinearity Result: VIF value less than 5 , thus no collinearity issue
	Step 3: Significance and relevance of formative indicators Result: All indicators achieved outer loading >0.5.
Reflective: Student Loyalty (SL)	Step 1: Internal Consistency : Result: Cronbach Alpha and Composite Reliability = achieved >0.6
	Step 2: Convergent Validity : Outer Loading & AVE Result: Achieved >0.7, AVE =>0.5
	Step 3: Discriminant Validity Result: Passed Fornell and Larcker's and Cross Loading criteria.

Stage 2: Structural Model

Table. 4 Summary of measurement model result

Steps	Result
Step 1: Collinearity	Variance Inflation Factor (VIF) achieved below 5.
Step 2 : Assessing significant of relationship (T- Value >0.196)	All relationships between the constructs achieved T-value >0.196.
Step 3: Predictive accuracy level (R^2) for endogenous constructs.	Predictive accuracy of CI is moderate. However predictive accuracy of SL is high.
Step 4 : Effect Size (F^2)	Effect size of CI is 0.569 which is categorized as moderate. While, effect size of SL is 0.751 which is categorized as strong.

To run the structural model, 5000 bootstrap sub-samples is conducted as per advised by [28] .The bootstrap result is shows as per figure 2.
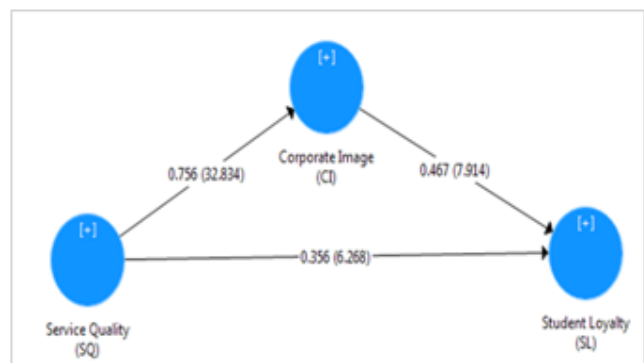
Fig. 2 Structural model with bootstrapping

Based figure 2, there is a direct and significance relationship between SQ and SL since the T-value is 6.268 (exceeded 1.96). This discovery is aligned with previous study by [29]. With this, H_1 is supported. Besides that, this study also revealed the direct and significant relationship between SQ and CI. Interestingly, the T-value level is higher which is 32. 834. This finding is aligned with earlier research by [30] and [31]. With this result, H_2 is supported. Besides that, another interesting finding is, there is direct and significant relationship between CI and SL. However, the T-value (7.914) is relatively lower as compared SQ and CI. Nevertheless, H_3 is supported. This result is aligned with earlier study by [32].

Based on bootstrapping result, the T-value for all direct relationship between constructs shows significant. Thus H1-H3 is supported.

Mediation Test

Based on extensive literate review, corporate image has been selected as mediator. To assess the mediating effect, analysis was run as through ' specific indirect effect'. T-value and P-values for both H_4 showed significant. Thus H_4 is supported. Based on Variance Accounted For (VAF) value, category of mediation is determined. The summary of result is as per table 5.

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Table. 5 Mediation Test of corporate image

No	Hypotheses	Std Beta	Std Error	t- Value	p-value	VAF
H$_4$	Service Quality (SQ) ->**Corporate Image (I)** -> Student Loyalty (SL)	0.353	0.045	7.797	0.00	49.7%

In the context of this study in higher TVET area, it is revealed that, corporate image is very important constructs since it mediate the link between service quality and student loyalty. This finding is considered as another new discovery in the context of studies on TVET HLI area. Thus, it is strong suggest that TVET HLI to improve the corporate image of institute and reputation which eventually will increase corporate image level.

There are several limitations in this study which has have found out during the research processes and once it is completed. The service quality dimension is only focus on the five dimension of SERVQUAL whereas there are others model can be used to examine the level of service quality as well. Future research should explore or extend the analysis of service quality by either using other model or the combination of model which potentially producing more comprehensive result. This study only concentrates on higher TVET only. With this, the findings are not able to be generalizing to all TVET institutes. Thus, it is suggested that the scope of study to be extended to all level of TVET provider and result comparison between them can be analyzed.

V. CONCLUSION

Based on the data analysis and result, it is concluded that there is a direct and significant relationship between the construct of SQ, CI and SL. Mediation test using Smart-PLS Shows that there is a partial mediation of CI on the relationship between SQ and SL. Thus, based on this finding, the research objectives are met. It is recommended that future research to extend of the scope of study to other universities. This study also recommended for the future study to investigate other mediating factors influence the link between service quality and student loyalty.

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AUTHOR PROFILE

Sallaudin Hassan, Department of Quality Engineering, Universiti Kuala Lumpur (UniKL), Johor Bahru, Johor, Malaysia

Rahmat Roslan Buang, Department of Quality Engineering, Universiti Kuala Lumpur (UniKL), Johor Bahru, Johor, Malaysia

Mohamad Ikbar Wahab, Department of Quality Engineering, Universiti Kuala Lumpur (UniKL), Johor Bahru, Johor, Malaysia

Mohamad Farid Shamsudin, Department of Marketing, Universiti Kuala Lumpur (UniKL), School of Business (UBIS), Kuala Lumpur, Malaysia

Muhamad Asyraf Hasim, Department of Marketing, Universiti Kuala Lumpur (UniKL), School of Business (UBIS), Kuala Lumpur, Malaysia