Assessing the Causal Relationship of Service Quality and Corporate Image on Student Satisfaction and Loyalty among the Technical Universities Students

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Abstract: Past studies in various areas indicated that customer loyalty is very critical. For technical universities, student loyalty is crucial in this intense competitiveness market. The main purpose of this research is to investigate the causal relationship of service quality, corporate image and student's satisfaction towards student loyalty. Scope of this research is technical universities in Malaysia. This research involved quantitative approach whereby survey questionnaires were used as instrument for data collection. 398 of returned questionnaires has been analyzed by using Partial Least Square (PLS)-Structural Equation Modeling (SEM). All exogenous constructs empirically found to have causal relationships with student loyalty. This study proved that student loyalty is influenced by service quality, corporate image of universities and student satisfaction.

Index Terms: Service Quality, Corporate Image, Student Satisfaction, Student Loyalty

I. INTRODUCTION

There is no doubt that the competition among the HLIs in Malaysia is very stiff currently. Recent statistics indicates that, there are 20 public universities which inclusive of 4 public technical universities and more than 478 privates higher institution in this country [1].

Addition to this, in the context of Technical and Vocational Education and Training (TVET), there are 1345 institutions [2]. This scenario has results in challenging of HLIs to recruit and retain the students in the institutes.

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According to reference [3] student loyalty will spread positive word of mouth, recommend others and retain with the institute until completion of studies.

Thus, improving student loyalty will support government in to increase number technical student especially in technical stream in order to fulfill demand from various industry.

Student enrollment for technical student to be increased to 650,000 by 2025 [4]. This is quite difficult and challenging since there are several issues. Technical stream especially TVET is still perceived as unattractive and associated with second class education path. While research by [5] highlighted that there are issues in service quality from the aspect of quality of teaching staff, management, infrastructure and services. These issues required for improvement to enhance to level of service quality to students as main stakeholders for HLIs.

Previous research found that, there are several important factors that have influence on customer loyalty. Reference [6] revealed that service quality has direct relationship with student loyalty in higher education institutes. In other research, university corporate image influences both student satisfaction and loyalty [7]. While student loyalty is influenced by the student satisfaction [8]. Thus, universities through many initiatives are trying to increase student satisfaction level right from the registration process up to graduation day.

Previous studies investigated the link among service quality, corporate image, student satisfaction and loyalty separately, but this study intended to integrate the four variables in one framework and tested using Partial Least Square (PLS). Besides that, up to the best knowledge of researcher, past researches are more focused non-technical stream. Very limited of the similar study has been conducted in technical stream. Therefore, this research is focus on technical universities under in Malaysia.

Based on studies background and gap from the previous research, objectives of studies are developed as below:

1. To measure the direct relationship between service quality and student loyalty.
2. To measure the direct relationship between corporate image on student loyalty.
3. To measure the direct relationship between student satisfaction on student loyalty.

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II. LITERATURE REVIEW

A. Service Quality

Reference [9] was one of the earlier author who defined and emphasized that quality must be evaluated by the consumer of services. At later stage, SERVQUAL was developed to measure service quality in retailing business. These dimensions have been widely be used to measure service quality in many industries. However, reference [10] improvised SERVQUAL from eleventh dimensions to five dimensions by integrating and combining the content. SERVQUAL has been widely be used by researcher in Banking [11], Higher Education [12] and Tourism [13]. Fundamentally, SERVQUAL measures level of service quality by comparing expectation and perception of customer towards the services. However, for this study, the customer evaluation of service quality in technical universities is based on perception only. There was an argument of comparing between expectation and perception in assessing the service quality. Measuring customer perception toward the services is adequate in determining the service quality [14]. The main reason is students normally assess the service quality after spending sometimes within the university. Thus their response towards initial expectation mostly likely be influenced by the current experience. Furthermore, the expectation might be changed over the period of time as well. Thus, this research is focused only at perception aspect of service quality at technical universities.

Previous study in banking organization [15], hotel services [16] and tourism [17] found that, service quality has influences on customer loyalty. In addition, in higher education sector, also found that service quality has positive influence on student loyalty. Based on earlier studies, service quality is indeed has influence on customer loyalty. However, which dimension in service quality that caused highest or lowest influence on customer loyalty are varies.

However, up to the best knowledge of researcher, such studies are inadequately has been conducted in technical stream in Malaysia. Thus, there is a need for further investigation on the causal effect of service quality on student loyalty. Thus, the following hypothesis is proposed: H_1 service quality has direct relationship with student loyalty in technical universities.

B. Corporate Image

Corporate image is an overall impression in the customer's mind as a result of accumulative feelings, ideas, attitudes and experiences with organization. It is later stored in memory, transformed it into positive or negative meaning. Then, customer will recalled when the name of organization is heard [18]. From other perspective, corporate image is presented as basis for competitive advantage for organization. Recent studies revealed that corporate image is the most appropriate construct to measure the overall views of internal and external people on the image of institution [19].

Factors such as academic reputation, campus appearance, cost, personal attention and location contribute to corporate image [20]. While reference [21] highlighted that corporate of institute can be concluded as sum of beliefs towards the institute itself. Corporate image was widely be used as important construct in assessing customer satisfaction and loyalty as well. Research in transportation industry found that corporate image has significant influence on customer loyalty. Similar findings has revealed in other industry such as services firm [22] and higher education. There is no doubt that, corporate image is crucial for higher education institutes, by being immersed in the competitive environment. To be competitive, many organizations spending a significant amount of budget to shine their image and enhance position in market [23]. On top of that, advertisement are also plays roles in communicating positive side of company the public and targeted group. For universities, public knowledge on the company's existence and offering good marketable program are critical. Good image must be portrayed to gain positive impression by the public.

Based on past studies, there is relationship between corporate image and student loyalty. Thus, this study intended to measure the direct and significant effect of corporate image on student loyalty in the context of technical universities. The following hypothesis is proposed: H_2, Corporate Image has direct relationship with student satisfaction.

C. Student Satisfaction

Conceptually, satisfaction involved feeling of customer towards the quality of service or product. It is fundamental for loyalty as post-purchase behavior. In addition, reference [24] highlighted that customer satisfaction can be described as an individual's state of pleasure or disappointment toward the performance of product or services. Generally, customer will satisfied if performance of product or services met their expectation. The main reason is satisfaction is the key driver to promote customer loyalty. Reference [25] found a strong relationship between customer satisfaction and loyalty. Furthermore, it can be regarded as a significant component in customer retention and key strategy for gaining market competitive advantage.

In the context of HLIs previous research by [26],revealed that student satisfaction has high influence in determining student loyalty in HLIs. Satisfied student will retain in the study until completion, recommend others and telling good aspect about the university. Therefore, this study is intended to measure the relationship between student satisfaction and loyalty in the context of technical universities. The following hypothesis is proposed: H_3 Student satisfaction has direct relationship with student loyalty.

D. Student Loyalty

Loyalty is derived from good customer relationship and satisfaction of customer. Loyal customer will spend more and stay around longer. Furthermore, keeping customer is five times cheaper than finding of new customer [27]. Nevertheless, loyalty is not able to be created easily. But, once it is able to be developed, the will be stay with the company for long period of time [28]. Therefore, building customer loyalty and managing customer relation should be performed and maintain meticulously by the organization [29].

In this research, customer loyalty is referred to student loyalty since they are major stakeholders.

Thus, they are very important component for HLIs. Reference [30] highlighted that, student loyalty is a process of making them feels committed to service of HLIs and loyal student will remain in the study until graduation. In addition, loyal student will support marketing of the institution by spreading positive word of mouth which eventually help to attract prospective student [31].

Based on the extensive literature review, research framework and list of hypotheses is depicted as figure 1 below;
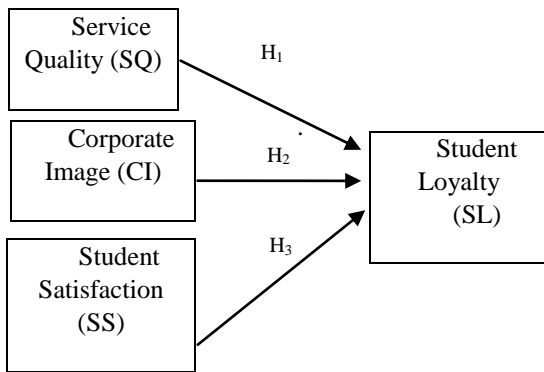

Fig. 1 Research framework

The following table list down all hypotheses in this study.

Table. 1 Hypotheses

NO	Hypotheses statements
H₁	Service quality has direct relationship with student loyalty
H₂	Corporate image has direct relationship with student loyalty.
H₃	Student satisfaction has direct relationship with student loyalty.

III. RESEARCH METHOD

The research paradigm underlying this study is positivist epistemology where it deals with nature of knowledge, justification and the rationality of belief. In this study, the research focused to clarify the relationships between service quality, corporate image, student satisfaction and loyalty. In this quantitative research, a set of questionnaire was used for data collection purpose. There are 5 main sections in the questionnaire which is Section A (Demographic, 8 questions), Section B (Service Quality, 31 questions), Section C (Corporate Image, 9 questions), Section D (Student Satisfaction, 7 questions) and Section E (Student Loyalty, 6 questions). All questions are adapted from previous research whereby reliability and validity has been confirmed.

This research focuses on higher TVET in Malaysia. Final year student from ten Unversiti Kuala Lumpur (UniKL) campus was selected as population for this study. Based on total population of 18079, sample size was determined by using Krejcie and Morgan (1970) table which is 375. To ensure adequate quantity additional 431 questionnaires were distributed. To determine the sample size for each of campuses, proportionate stratified sampling was used. Main reason for selecting final year student as respondent mainly due to their experience with the university as compared with junior student. To ensure higher response rate, questionnaires were distributed to the student during the class with the help of respective lecturer.

Researcher conducted data screening before analysis is conducted. 398 of cleaned data were selected for analysis. Smart PLS 3.0 was used to analyze two main steps as per requirement in PLS-SEM which is measurement model and structural model. The main aim of this analysis is to explore the relationship between the independent variables and dependent variable.

IV. DATA ANALYSIS

The first level of analysis is measurement model which to be conducted for both formative and reflective constructs. Based on the structure of questions is developed, service quality (SQ) and Corporate Image (CI) is categorized as formative. While student satisfaction (SS) and student loyalty (SL) is categorized as reflective.

Assessing the measurement model for formative construct involved assessment of convergent validity, checking collinearity issues and assess the significance and relevance of formative indicators.

PLS Algorithm was run and the results shows that redundancy analysis between SQ and SQ global item is 0.798. Redundancy analysis between CI and CI global item is 0.790. Both reading achieved the minimum threshold of redundancy analysis which is 0.7. Besides that the Variance Inflation Factor (VIF) reading shows below than 5 which is considered as no collinearity problem. For formative constructs, in the situation where indicators are insignificant, reference [32] highlighted that outer loading can be referred to retain the indicators. Insignificant indicator can be retained if outer loading achieved more than 0.5. In this study, all indictors are retained with the original constructs.

Reflective measurement model involved Internal Consistency Convergent Validity and Discriminant Validity. The outer loading indicators has achieved more than 0.7 and AVE is more than 0.5. All indicators are retained. Both Composite Reliability and Cronbach's Alpha exceeded 0.6 and 0.7 respectively. Besides that, the square root of AVE for each Latent Variable is greater than the correlation among the LVs. Based on cross loading result, the outer loading values are greater than its loading with all other remaining constructs.

The subsequence analysis is structural model. The main purpose of structural model is to examine the predictive capability and relationship between the constructs. This research focused on the relationship between the construct as to align with the objectives of the study. Based on bootstrapping step, path coefficient and significant values are obtained. Interestingly, it was found that SQ, CI and SS has direct effect on SL. In addition, the relationship is significance. Fig II, indicates the details bootstrapping result.

The most significant relationship is SS to SL whereby the path coefficient is 0.425 or 42.5% and the T-value is 8.019. This is followed by CI to SL whereby the path coefficient is 0.241 or 24.1% and T-value is 4.71.

Whereas, the path coefficient and T-value for SQ-SL is 0.225 or 22.5% and 4.240 respectively.
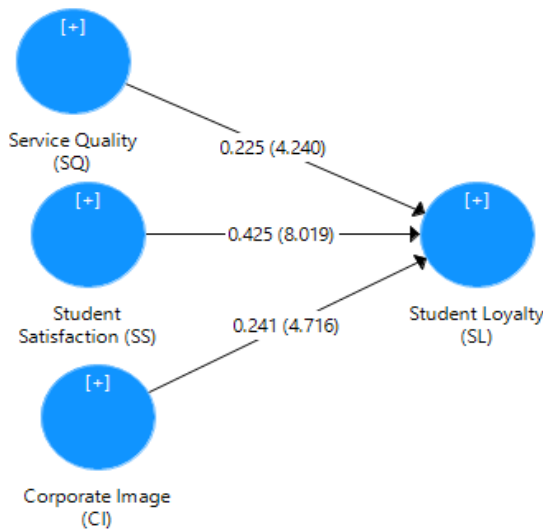
Structural model analysis is as per Fig. II.

Fig. 2 Structural model

Table. 2 Summary of hypotheses results

Hypotheses		Path Coefficients, β	T-Value (>1.96)	P Values (<0.05)	Supported?
H₁	SQ -> SL	0.22	4.24	0.00	Yes
H₂	CI -> SL	0.42	8.01	0.00	Yes
H₃	SS→ SL	0.24	4.71	0.00	Yes

Based on table 2, all hypotheses are supported which indicates that research objectives are met.

V. DISCUSSION OF FINDING AND CONCLUSION

Based on data analysis, using PLS-SEM, it was found that all indicators are reliable and met the validity requirements. Meantime, the relationship between the independent variables and dependence variable are able to be proved through structural model analysis.

Findings in this research proved the existence of relationships between SQ and SL. Thus, the first objective which is met and H1 is supported. This finding is aligned with earlier research by [33]. Service quality of HLIs is indeed required continuous improvement from time to time since the technology are evolves. Engaging with experts from relevance industry will help in curriculum review to ensure that the content of syllabus are up to date with recent development in industry. Another aspect that can be benefited is recent technology. TVET student requires to be exposed on the recent equipment, tools and system of work in the industry. Another areas that required attention by the TVET HLI is in term of engagement of lecturer and support staff with the customer which is students. The response and empathy need to be enhanced. With good service quality, the student will have better study experience. Therefore, high chance for them to spread a positive word mouth to others and stay with the university until completion of studies.

Another interesting finding in this research is corporate image which also has relationship with student loyalty. Thus, the second objective is met and H2 is supported. This finding is similar with earlier investigation by [34]. To build and maintain the positive overall impression of student towards technical universities is challenges. The top management of technical universities needs to continually improves the image and reputation through strong brand name, positive media coverage, always fulfilled the promises to student and importantly has good course program. With positive corporate image of technical universities it will improve student loyalty.

Obviously, to achieve student loyalty, they must have satisfied first.

To maintain relevance, the technical universities must ensure students are happy and satisfied as it is a major influence on customer loyalty. This study has proved that student satisfaction has direct relationship with student loyalty in the context of technical universities Thus, research objective three is met and H_3 is addressed. This finding is consistent with earlier research by [35].

The empirical finding in this research enriches the existing literature on the causal effect of service quality, corporate image and student satisfaction on student loyalty from different scope which is TVET HLIs. Align with the 11th Malaysia Plan (2016-2020) expectations, it is crucial for TVET HLIs to improve the level of service quality, corporate image and student satisfaction to meet enrolment's target. With, that TVET HLIs will be able to supply adequate skilled graduate to industry.

This study limited to the investigation of causal effect between the construct. Future study is suggested to explore the mediation effect in between the variables. From other perspective, future research should consider to investigate more antecedent factors of student loyalty besides service quality, corporate image and student satisfaction. In addition, future study should consider different scope such comparison between TVET HLIs and other category of HLIs.

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