

Mediating Effect of Student Engagement on Service Quality to Student Loyalty Relationship In Student Recruitment Agencies In Malaysia

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Abstract

This study was to examine the effect of service quality and student loyalty in the Yemeni student recruitment agencies in Malaysia by the mediating of student engagement. The respondents of 315 of international students registered by Yemeni student recruitment agencies in Malaysia were used to examine the constructs' relationship. The data set was analyzed using descriptive analysis and structural equation modelling. The findings showed that student engagement has a significant and positive partial mediating effect on service quality and student loyalty relationship in Yemeni Student Recruitment Agencies in Malaysia. The findings suggest that the quality of service relationship is satisfactory. The findings indicate that service quality, student engagement, and student loyalty will lead to Yemeni student recruitment agencies' profitability. Therefore, service quality, and student engagement play a crucial function within the Yemeni student recruitment agencies. The combination of student engagement and service quality explains student engagement's role in student loyalty. The effects of the service quality on student loyalty are described in the indirect relationships through mediation.

Keywords: Service quality, student engagement, student loyalty, international students, Yemeni student recruitment agencies in Malaysia.

Introduction

Student recruiting agencies play a vital role as a connection between students and universities, particularly for students seeking for opportunities abroad. (Zhang and Serra Hagedorn, 2014). The agencies shall take steps on behalf of the students and meet the application procedure (Raimo, Humfrey, and Huang, 2014). Recruitment agencies play a major role in student recruitment by calling colleges, providing details on the appropriate institution, registering for the student's programme, and completing student visa. Many reports have looked at the position of the agencies and the student participation in higher education. It is stated that two-third of the Chinese students who enroll in the USA through agents (Zhang and Serra Hagedorn, 2014), and in Australia, around 57.6% of new international students are recruiting by student recruitment agencies (Raimo *et al.*, 2014). The student typically has problems contacting the colleges and having the correct answers, which requires them to contact recruitment agencies to find the right information to offer them guidance (Zhang and Serra Hagedorn, 2014). In order to choose the agency that is going to take care of the student, the student would need to focus on suggestions. Additionally, he or she will require a good quality service (Zhang and Serra Hagedorn, 2014). Student recruitment agencies should provide service quality and engage students to use the service. In this case, student engagement leads to increasing number of loyalty (Raju, 2021). Therefore the purpose of this study to explore the mediating effect of student engagement on the relationship between service quality and student

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loyalty of student recruitment agencies in Malaysia. Also, this study provided conceptual framework that integrates the service quality, student engagement and student loyalty.

Literature Review

Service Quality

Services are necessary for a business to meet its customers. These services rely on the product type and vary from one company to another. The service can be described in several ways, based on which field the concept is used (Ismail and Yunan, 2015). The SERVQUAL model's dimensions are one of the most useful measurements of service quality. For the first time in developing this model, Parasuraman et al. (1985), defined 97 attributes, which were reduced into ten dimensions. The dimensions were found to affect service quality and were considered significant parameters for accessing customer preferences and service delivery perceptions (Mukesh et al., 2009). The SERVQUAL scale, also known as the gap model by Parasuraman et al. (1988), has been the easiest method to assess customers' services' efficiency. This service assessment approach is consistent and accurate by some authors (Brown et al., 1993). They argued that whether service is experienced or witnessed, it is less than expected service; it implies less than satisfactory service quality. When service perceived is greater than expected service, the logical conclusion is that service quality is greater than satisfactory. The definition of SERVQUAL is ideal for assessing service quality from a customer viewpoint, as this principle is introduced. That's because it is claimed that service is "perceived" and "expected." It goes very simply to the person who goes to or uses the service. The person can be a consumer or customer. The original study by (Parasuraman et al., 1988), identified ten dimensions of service quality. After refining, the above ten dimensions were later reduced to the five dimensions. First, tangibles which is the appearance of physical objects and personnel relevant to the service (accommodation, equipment, personnel uniforms, etc.) (Blery et al., 2009). Second dimension is the reliability which relates to the capacity to provide the services promised (Blery et al., 2009). Third dimension is responsiveness which means workers' ability to support pleasantly and efficiently (Blery et al., 2009). The fourth dimension is the assurance which includes the employees' awareness, courtesy, and willingness to inspire confidence and trust (Blery et al., 2009). The fifth and last dimension is the empathy: it contains caring, individualized attention the firm provides to its customers (Blery et al., 2009).

Student Engagement

Student engagement is defined as a multidimensional conception that defines the state of mind of a customer arising from interactions in a specific relationship with a service provider (Brodie et al., 2011). Student engagement is well-known and increasingly recognized within the marketing sector respectively (Brodie et al., 2011; Chathoth et al., 2016). Student engagement has gained greater research emphasis in the last 10 years (Bowden, 2009; Brodie et al., 2011; van Doorn et al., 2010; Kumar et al., 2013; Leventhal et al., 2014; Monferrer et al., 2019; Pansari and Kumar, 2017; Roy et al., 2018; Sprott et al., 2009). Based on the multidimensional approach, So et al. (2014) described CE as a customer's relation to a brand as expressed in cognitive, affective, and behavioural responses without regard to the purchase.

Student Loyalty

Student loyalty is a crucial factor in achieving a sustainable competitive advantage, as it affects the purchase and repurchase of goods and services. Research indicates that maintaining current students is a much more successful market strategy than recruiting new students to replace lost students (Mohammad Haghghi, 2012). A study on student loyalty and companies by Dhasan et al. (2017) demonstrated that creating and sustaining student loyalty is essential to business success. This study suggests that companies should concentrate their efforts on building customer relationships via better student engagement platforms, promotional offers, and appropriate service quality styles to generate value for their target customers. Antonios Le Port (2011) claimed that in general terms, student loyalty is a difficult topic to research because it consists of several dimensions, and its conceptualization has been characterized by three approaches (Raju, 2021). The three distinct approaches to measure loyalty are behavioural approach, attitudinal approach, and composite approach (Bowen and Chen, 2001).

Conceptual Framework

In this study, independent variable was used to study the influence of this variable on the student loyalty via the mediating of student engagement. The independent variable is service quality. In the dependent variable, the student loyalty was selected to be used in this study, determined by the student ability to exchange details, tell others good things, recommend them to friends, continue buying the service, buy additional services and try new services (Raju, 2021). Also, there is one mediating variable, which is student engagement. Previous studies have investigated the direct relationship. The relationship between service quality and student engagement is supported by (Puriwat and Tripopsakul, 2014). In addition, service quality has a significant and positive correlation to student loyalty (Ngo and Nguyen, 2016). Finally, research by (Hapsari *et al.*, 2017) revealed a relationship between student engagement and student loyalty. The following conceptual framework (Figure 1) for this study was developed based on the literature review.

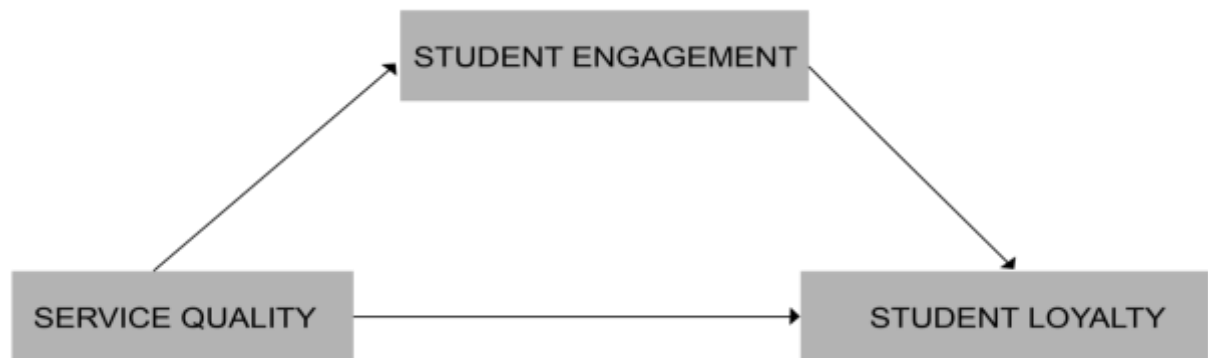


Figure 1. Conceptual framework of the mediation effect of CE on the relationship between factors and CL

The direct relationship between the variables has been established in several and various sectors by previous researchers. However, based on the literature review, there are limited previous studies on the indirect relationship through the mediating of student engagement (Raju, 2021), so this study aimed to explore the mediating effect of student engagement on the relationship between service quality and student loyalty. This framework also serves as a guide to direct this study to analyze various variables' connection. One hypothesis was addressed and developed:

- H1: Service quality has a significant impact on student loyalty through the mediating role of student engagement.

Methodology

Survey Instrument

The demographic profile on Table 1, includes 5 questions such as gender, age, nationality, highest qualification, and Yemeni recruitment agency. The objective of this is to collect brief information about respondents. For descriptive statistics, a total of 36 items for service quality, student engagement and student loyalty. The independent variable of the service quality includes 22 items, the mediating of student engagement contains 6 items and the dependent variable of student loyalty consists of 8 items. Each of the statements was scaled in a five-point scale where; 1 indicates "Strongly Disagree"; 2 indicates "Disagree"; 3 indicates "Neutral"; 4 indicates "Agree," and five indicates "Strongly Agree" (Lin and Wang, 2006). Data collection used structured and semi-structured questionnaires. Nominal ordinal and Likert scales are used to measure distinct categories.

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Table 1: Demographic Profile

Respondent Characteristics	Sub-Profile	Frequency	Percent
Gender	Male	206	65.4
	Female	109	34.6
Age	18 years old	54	17.1
	19 - 20 years	97	30.8
	21 - 30 years	127	40.3
	31 - 40 years	36	11.4
	Other	1	0.3
Nationality	Yemeni	130	41.3
	Saudi arabia	27	8.6
	Iraqi	27	8.6
	Kuwaiti	26	8.3
	Libyan	16	5.1
	Pakistani	5	1.6
	Egyptian	14	4.4
	Syrian	15	4.8
	Omani	16	5.1
	Palestinian	15	4.8
	Sudanese	10	3.2
	Jordanian	6	1.9
Algerian	8	2.5	
Highest qualification	Language	54	17.1
	Diploma	40	12.7
	Degree	121	38.4
	Master	66	21.0
	PhD	34	10.8
Yemeni student's recruitment agencies in Malaysia	Salaysia Education Services	80	25.4
	Help for Study	43	13.7
	Qudarat	28	8.9
	My one Fattah	91	28.9

	GOAXIA	33	10.5
	Dimond Student	40	12.7

Sample

A questionnaire distributed to the International students who have registered through the Yemeni student recruitment agencies in Malaysia. The respondents were selected through simple random sampling from different agencies and universities. The total sampling size of students is 338 and requested to complete the questionnaire. The international students were from universities located in Kuala Lumpur, Selangor, Penang, and Johor Bahru. Out of 338 distributed questionnaire, 315 completed and usable questionnaires. This made up the response rate of 93.19 %. The 315 completed and usable questionnaires were tested and analyzed using two types of data analysis: SPSS version 23 and SmartPLS Version 3.

Data Analyses

Two statistical techniques have been adopted to analyze the data. The first statistical technique is the Statistical Package for the Social Sciences (SPSS), which was used to analyze the descriptive analyses. The descriptive analysis was used for both demographic and the variables of this study, such as means and standard deviations. The second statistical technique is the Structural Equation Modeling (SEM using SmartPLS03) was also used to test the evaluation of the measurement test, such as the reliability and validity test, including (convergent and discriminant validity). The structural test assessment, including the collinearity assessment (VIF) and the hypothesis test (Sarstedt *et al.*, 2017).

Service quality was stated by 22 items (from SQ1 to SQ22) as suggested by (Cronin & Taylor, 1992; Tee, Preko, & Tee, 2018; Berry, Parasuraman, & Zeithaml, 1988). The highest score of service quality expresses the highest loyalty level by students. The average score of service quality was 3.93, and the total score was 86.46 (Table 1).

Student engagement dimension was measured by six items (from SE1 to SE6), attributed to (Hapsari *et al.*, 2017; So *et al.*, 2014). The highest score of engagement defines the highest engagement level of service provider. The average score of engagement collected from respondents was 4.23, and the total score was 25.42. The highest score appointed by students was “When interacting with the Yemeni student recruitment agency, it is difficult to detach myself” (Mean=4.26 and Std. Deviation=.663). The lowest score was for “I am proud of the Yemeni student recruitment agency’s success” (Mean=4.19 and Std. Deviation =.613) (Table 1).

Student loyalty dimension was stated by eight items (from SL1 to SL8) as suggested by (Zeithaml, Berry and Parasuraman, 1996; Mols, 1998; Caruana, 2002; Chen, 2008; Nadiri *et al.*, 2008; Brodie, Whittome and Brush, 2009; Hu, Kandampully and Juwaheer, 2009; So, King and Sparks, 2014; Hapsari, M. D. Clemes and Dean, 2017a; Sarder *et al.*, 2017). The highest score of student loyalty expresses the highest loyalty level by students. The average score of student loyalty was 4.33, and the total score was 34.71 (Table 1).

Table 2. Descriptive statistics

Factors	Mean	SD
Service Quality	3.93	.711
Student Engagement	4.23	.663
Student Loyalty	4.33	.645

Structural Equation Modeling Approach

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The structural equation modeling used to test the consistency of the items that define the variable also how it's different between conceptual framework and experimental data. In this approach, it helped the researcher to test and evaluate the conceptual framework that consists of different variables.

Evaluation of measurement model

The SmartPLS version 3 was used to evaluate the reliability and validity of the instruments. To measure reliability, Cronbach's alpha has been used in this study. So, the Cronbach's alpha of service quality, student engagement and student loyalty were between (0.925 and 0.979) as shown on table 3. This indicated that all the instruments used in this study are accurate and reliable as all constructs achieved the standard value of 0.70 proposed by (Chang *et al.*, 2012; Nunnally, 1978).

Convergent validity is the assessment to measure the level of correlation of multiple indicators of the same construct in agreement (Hair *et al.*, 2019). To establish convergent validity, the factor loading of the indicator, the average variance extracted (AVE), composite reliability (CR) have to be considered. (Byrne *et al.*, 2016) suggested that the loading factor of more than 0.50 is deemed sufficient for the reliability of the indicator, average variance extracted (AVE) should be more than 0.70 and >0.5 as proposed by (Hair *et al.*, 2019), and composite reliability (CR) should be >0.7 , as suggested by Fornell & Lacker (1981). As shown on table 3, all of the measurement of the constructs met the required criteria. Based on factor loading and SQ criteria, only nine (9) items meet the acceptance level. Thirteen indicators failed to meet the acceptance criterion, which suggests model re-specification. The respective indicators are SQT1, SQT2, SQT3, SQT4, SQRES1, SQRES2, SQRES3, SQRES4, SQEMP1, SQEMP2, SQEMP3, SQEMP4, and SQEMP5 with factor loadings low. The AVE is between (0.728 and 0.736) which is greater than 0.5 also composite reliability is between (0.925 and 0.961) which is more than 0.7, so the factor loading, AVE and composite reliability achieved these requirements.

Table 3. Construct Reliability & Validity

Factors	Items	Factor Loading	Items were deleted	AVE	CR	Cronbach's alpha
Service Quality	SQA1	0.850	13	0.732	0.961	0.979
	SQA2	0.844				
	SQA3	0.867				
	SQA4	0.848				
	SQR1	0.862				
	SQR2	0.845				
	SQR3	0.866				
	SQR4	0.847				
	SQR5	0.871				
Student Engagement	SE1	0.800	0	0.728	0.941	0.925
	SE2	0.851				
	SE3	0.846				
	SE4	0.877				

	SE5	0.869				
	SE6	0.875				
Student Loyalty	SL1	0.874	0	0.7 36	0.92 5	0.956
	SL2	0.851				
	SL3	0.851				
	SL4	0.859				
	SL5	0.860				
	SL6	0.849				
	SL7	0.857				
	SL8	0.861				

Discriminant validity refers to the extent to which the construct differs from one another empirically. It also measures the degree of differences between the overlapping construct. The discriminant validity can be evaluated by using cross-loading of indicator and Fornell & Larcker criterion. To confirm the discriminant validity, AVE square should be higher than the squared correlations between the latent variable and all other variables. So, the results on Table 4 indicated the measurement model has a sufficient level of discriminant validity. It is proven from the values of the square root of all AVE values for each construct (bold values in diagonal) exceeded all the inter-factor correlations between them and each other construct for each construct. It can be concluded that all items have sufficient validity, and it refers that there is no discriminant validity issue.

Table 4. Result of Discriminant Validity Variable Correlation (Square Root of AVE Using)

Factors	Service Quality	Student Engagement	Student Loyalty
Service Quality	0.856		
Student Engagement	0	0.853	
Student Loyalty	0	0.541	0.858

Cross loading demonstrated in Table 5 display adequate discriminant validity levels for each construct. The factor loading indicators in the specified construct must be greater than all loading in other constructs when looking at cross-loading, such that the loading factor cut-off value is higher than 0.70. Each item factor in the bold value of table demonstrates strong loading values to the corresponding latent construct and low loading values to other constructs.

Table 5. Result of Discriminant Validity “Cross loading”

Items	Factors		
	Service Quality	Student Engagement	Student Loyalty
SQA1	0.849	0.404	0.807
SQA2	0.844	0.404	0.798
SQA3	0.866	0.411	0.842
SQA4	0.848	0.474	0.830
SQR1	0.862	0.436	0.803

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SQR2	0.845	0.387	0.787
SQR3	0.866	0.394	0.786
SQR4	0.847	0.437	0.765
SQR5	0.870	0.451	0.816
SE1	0.473	0.799	0.499
SE2	0.419	0.850	0.453
SE3	0.403	0.845	0.439
SE4	0.407	0.877	0.445
SE5	0.407	0.869	0.460
SE6	0.450	0.875	0.463
SL1	0.812	0.479	0.873
SL2	0.781	0.456	0.850
SL3	0.761	0.464	0.851
SL4	0.785	0.877	0.858
SL5	0.821	0.433	0.860
SL6	0.817	0.466	0.848
SL7	0.848	0.478	0.857
SL8	0.819	0.438	0.860

Evaluation of structural model

The structural model was used to evaluate and test the relationship of the variables by using bootstrapping in SmartPLS 03 software. p-value, t-test and confidence interval were calculated using a bootstrap resampling technique was used to test the hypothesis (Preacher and Hayes, 2008). This study used a resampling procedure with 300 subsamples to assess the significance of the hypothesized relationships.

Collinearity assessment

Based on the Collinearity Statistics, as presented in Table 6, independent variable has a tolerance value greater than 0.1: service quality (.205). Tolerance values that are more than 0.1 indicate that the variable has a high tolerance level; thus, the predictors are not redundant (Bruin, 2006). Meanwhile, independent variable does not display any multicollinearity problem because all variance inflation factors values (VIF) are not more than 10 (Robert, 2007). The VIF value for this service quality is (3.882). There is no multicollinearity symptom in service quality. Mediating and dependent variables have been tested, and it found that there is no multicollinearity problem as Tolerance of student engagement is (.463), VIF (2.158) and Tolerance of student loyalty is (.583) and VIF (1.714).

Table 6. Collinearity Assessment

Factors	Collinearity Statistics	
	Tolerance	VIF
Service quality	.205	3.882
Student Engagement	.463	2.158
Student Loyalty	.583	1.714

Hypotheses (Mediation test)

This study focused on exploring student engagement's mediation effect on the relationship between factors and student loyalty. So, this mediation was established using the bootstrapping approach (Preacher and Hayes, 2008). This kind of approach was achieved under two conditions: bootstrap; the indirect effect (total effect) should be significant, and the confidence interval of upper and lower levels should not exist zero between them (Preacher and Hayes, 2008).

Table 7. Mediation Test of Student Engagement

Relationship	Path coefficient		Indirect Effect			Bootstrapped Confidence Interval		Decision
	Path a	Path b	Path coeff (Path a*Path b)	SE	T-value	95% LL	95% UL	
SQ-> SE -> SL	0.503	0.091	0.046	0.018	2.543	0.010	0.081	Partial Mediation

The mediation was tested by two steps; first the results extracted from the indirect effect through the bootstrapping shows that the indirect effect of service quality to student loyalty with the present of student engagement as a mediator is significant at $p < .000$. Also by following Preacher & Hayes (2008) where the lower level confidence level (LLCL) is 0.010 and upper level confidence level (ULCL) is 0.081 (Refer to table 7). Then the mediation level was measured by looking at Figure 2 of the relationship between the IV and DV and Figure 3 the relationship between the IV and DV through the mediating effect. So, when the indirect effect of the relationship reduces the direct effect, it means the mediation level is partially mediation. In contrast, when there is no relationship between direct effect through the mediating effect, it can be confirmed the relationship is full mediation. It shows that the level of mediation is partially mediation. As shown on Figures 2 and 3, the relationship between SQ and CL was (0.941) and after the introduction of the mediator was (0.895). Since the relationship through the mediating of student engagement reduces, it can be concluded that the level of the mediation was partially mediation. The t-values (2.543) and p-values (0.000) for H1 showed significance. The T-value and P-value meet with acceptance criteria as recommended by (Sarstedt *et al.*, 2017) that T-value should be ≥ 1.96 and suggested by (Henseler and Sarstedt, 2013) that P-value should be ≤ 0.05 .

Table 8. Hypothesis Result

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Hypothesize Relationship	Path Coefficient	P-value	Conclusion
H ₁ Student engagement mediates the relationship between service quality and student loyalty	0.046	0.00	Partial mediated

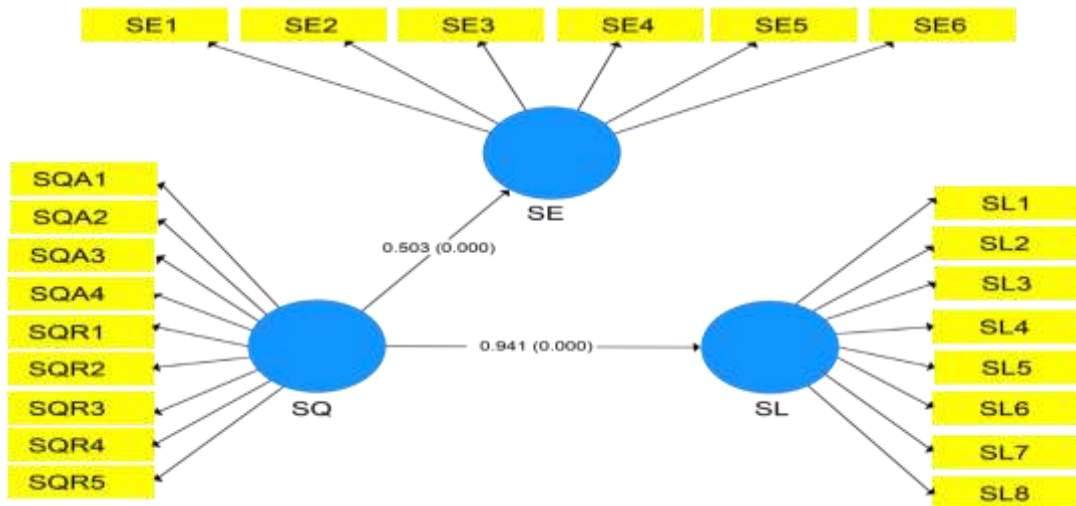


Figure 2. Direct Relationship between SQ and SL

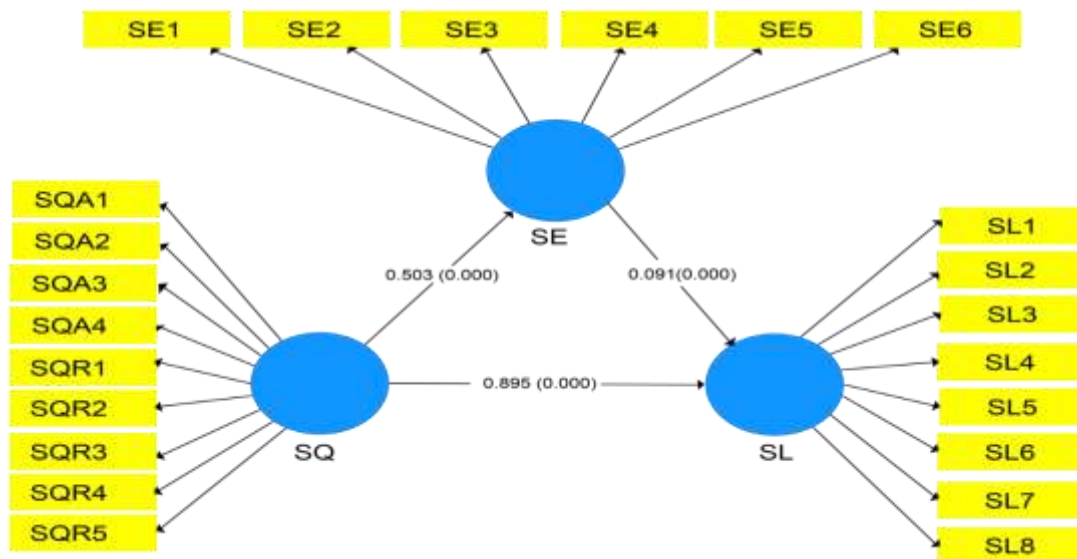


Figure 3. Indirect relationship between SQ and SL through the mediating of SE

Conclusion and Recommendation

This study is to build relationship between variables which are service quality, student engagement and student loyalty. Based on this, several researches have been conducted and evaluated on these variables of service quality, student engagement and student loyalty but they don't test the indirect relationship between service quality and student loyalty through the mediating effect of student engagement (Raju, 2018). Therefore, this study aimed to explore the association between service quality and student loyalty through the mediating effect of student engagement in Yemeni student recruitment agencies in Malaysia. This study proposed conceptual framework to test and validate the relationship between the service quality and student loyalty

mediated by the student engagement. In order to achieve this objective, SmartPLS data analysis was adopted. Based on the measurement model, all variables were confirmed as reliable and valid. Meanwhile, the results of the structural model indicated that there was a direct and significant relationship between service quality and student engagement. This finding is consistent with engagement Quach, Jebarajakirthy, and Thaichon (2016). Meanwhile, student engagement had a direct and significant relationship with student loyalty (Chetty and Phung, 2018). This finding is consistent with Monferrer, Moliner, and Estrada (2019). This study also indicated that service quality and student loyalty had a direct and significant relationship. This finding is consistent with Khizindar & Al-Azzam (2015). The mediating test was used to analyze the construct of student engagement. The study findings claim that student engagement mediates the correlation between agencies' service quality and the students' loyalty. This study's findings are consistent with earlier research (Puriwat and Tripopsakul, 2014; Hapsari, M. D. Clemes and Dean, 2017a; Tee, Preko and Tee, 2018; Monferrer, Moliner, and Estrada, 2019). The level of the mediation of the service quality is partially mediation as the relationship between service quality and student loyalty reduced when the student engagement has been introduced (0.895). therefore, the finding was supported and met H1.

The outcomes of this study help to think about the main factors of loyalty to students. In this study, it was noticed that by enhancing service quality, there would be a rise in student loyalty across different types of services, and that students prefer to deal with service providers that offer excellent services with reasonable rates. It is reasonable to suggest that student loyalty would have a huge effect on the profitability of the Yemeni student recruitment agencies services. There is also no reason to ignore the value of student loyalty as management seek to implement profitable strategies in the business and aim to develop higher market share (Raju, 2021). Yemeni student recruitment agencies should investigate what students need and want. Yemeni recruiting agencies should allow students to identify with and become excited to engage their students. Yemeni student recruiting agencies are requested to make the student pay attention to and engage with the service they offer. To do this, Yemeni recruiting firms will modify their marketing messages and initiate innovative marketing strategies to engage the student with the agency. Yemeni student recruitment agency employees should pay student engagement attention. Engage students by Yemeni student recruitment agencies not only revisit and little probability to find an alternative. Also, the word of mouth recommendation is essential, which means that engaged students are unconditionally loyal to Yemeni students' recruitment agencies, which will help new market development. This study's test result demonstrates that service quality resulted in a positive relationship with student loyalty through the mediating of student engagement. Thus, Yemeni student recruitment agency employees should concentrate more on the service quality to improve student loyalty more effectively. Yemeni student recruiting agencies in Malaysia should develop a strong relationship with the students, maintain student relationships, and engage them.

Although this study has obtained important results about the influence of service quality on student loyalty via student engagement of Yemeni student recruitment agencies in Malaysia but cannot avoid some limitation. There are many limitations to this study. First limitation, there are different mediating variables, but this study focused on only one mediating variable, which is student engagement. It is suggested for future research, it would better to focus on more than one of mediator to be included. Second limitation is a cross sectional research design used in this study which cannot establish the cause-and-effect relationships between the variables. For future research longitudinal study can be used to collect data to detect the development or changes in characteristic of target population, also to make conclusive results or association between variables. A variety of customer service and personal characteristics should be established, which can show meaningful insights on determining how similarities and differences between customers influence the quality of service provided by organisations. Third limitation, this study is implementing a quantitative approach (questionnaire tools), while it was better to use both quantitative (questionnaire) and qualitative (interview).

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