

# Students' Perception of Lecturers' Competency and the Effect on Institution Loyalty: The Mediating Role of Students' Satisfaction

Muhammad Safuan Abdul Latip<sup>1\*</sup>, Farhana Tahmida Newaz<sup>2</sup>, Ravindran Ramasamy<sup>3</sup>

<sup>1</sup>Faculty of Hotel and Tourism Management,  
Universiti Teknologi MARA Cawangan Terengganu,  
Kampus Dungun, Sura Hujung, 23000 Dungun, Terengganu, Malaysia  
safuanlatip@uitm.edu.my

<sup>123</sup>Graduate School of Business, Universiti Tun Abdul Razak,  
195A, Jalan Tun Razak, 50400 Kuala Lumpur, Malaysia  
farhana@unirazak.edu.my  
ravindran@unirazak.edu.my

\*Corresponding Author

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**Abstract:** The lecturer's competency is the most important factor that influences students' achievement and satisfaction as per traditional learning theory. Indeed, it is found to be a critical element for institutions' sustainability through loyalty. Thus, the study investigated the impact of lecturers' competencies on student satisfaction and student loyalty involving a total of four exogenous variables, namely, knowledge and credential, pedagogy knowledge and skill, industrial experience, and motivation of the lecturers. The mediating effect of student satisfaction was tested. The target population of the study comprised a total of 1,055,245 active students enrolled in bachelor's degree, master's degree, and doctoral degree programmes in Malaysia. A total of 386 valid responses were obtained through a traditional questionnaire method in eight higher education institutions. The findings revealed that knowledge and credential, industrial experience, and motivation of lecturers all have significant positive relationships with students' satisfaction. On the other hand, only the motivation of lecturers was found to have positive effects on student loyalty towards the institution. Students' satisfaction was found to mediate the relationships of knowledge and credential, industrial experience and motivation of lecturers toward student loyalty. The outcome of the study also accentuated the importance of maintaining and delivering a good service quality by the institution, achieved primarily through competent lecturers as this will lead to student loyalty and institutional sustainability. In return, students will have a better understanding of the subjects taught, and the institution will be likely to sustain and to have positive brand awareness in the market.

**Keywords:** Higher education, Lecturer competency, Student satisfaction, Student loyalty

## 1. Introduction

The growing number of private higher education institutions in Malaysia has resulted in intense competitions among them (Benjamin et al., 2011). In facing a challenging environment and to remain competitive in the global market, these institutions, together with the government, need to focus their attention to improve the quality of education. This is well in tandem with the goal of the Ministry of Higher Education Malaysia (MOHE) to make the country a regional hub of higher education in the Asia Pacific (Jusoh, 2014).

Lecturers' competency is one of the primary service quality experienced by the students (Latip et al., 2019). A competent lecturer possesses a holistic aspect of learning and teaching, which includes professional knowledge and interactions, social interactions, good character, and matured personal qualities (Hanapi & Nordin, 2014). As knowledge transfer is the core activity of the institutions, subject knowledge and lecturers' quality are vital for students' satisfaction towards the services provided by the institutions (Awang, 2014). Hence, it is particularly important for the lecturers to improve their professional competency as an essential facet in the overall learning process, including emotional intelligence to cater for the students' needs and to cope with a stressful working environment (Prasetio et al., 2017).

As a matter of fact, the quality of the lecturers will affect students' academic performance (Muzenda, 2013) and the institutions they belong to (Hanapi & Nordin, 2014). There is a potential association between student satisfaction and student loyalty which originates from a greater service quality (Santhi & Ganesh, 2015), which expected outcome will be long-term benefits gained by the institutions through repetitive purchase behaviour and positive referrals of the students (Carter & Yeo, 2016).

Satisfied customers are likely to be loyal and they will tend to spread around positive word of mouth. In contrast, those who are dissatisfied may likely tend to do the opposite. Furthermore, since the students need to pay for the course fees to the institutions they are attending to, their expectation for quality education is high. As the cost of tertiary education in Malaysia has been escalating faster than the national inflation rate, issues of affordability and quality education have been raised which often cause some sensitivities related to the cost paid (Benjamin et al., 2011). Thus, this research is important with its aim to ensure that quality education and student expectation can be met accordingly.

Many studies have shown significant relationships between student satisfaction and student loyalty (Alves & Raposo, 2007; Annamdevula & Bellamkonda, 2016; Carter & Yeo, 2016). However, those focusing on the lecturers' competencies and how it may possibly affect students' satisfaction and loyalty in the current era of the Industrial Revolution (IR) 4.0 are limited in number. This is a cause for concern, since teaching staff and subject experts are one of essential facets in learning and they have been found to be the most important factor in assessing students' satisfaction in higher education institutions (Douglas et al., 2006).

Furthermore, the issues related to difficulties in study loan repayment and a high unemployment rate among graduates have accentuated the need for this study to be expedited (Hanapi & Nordin, 2014). It is vital to address students' satisfaction for the higher education institutions to remain competitive and to ensure their own sustainability (Santhi & Ganesh, 2015). The local institutions are not only competing among themselves but also with prestigious international brand universities operating in Malaysia. Thus, the need for this research to be conducted is even greater. The study aimed to find answers for the following important questions.

- 1) Do the competencies of lecturers affect the satisfaction and loyalty of students toward the institution?
- 2) Is there any mediating effect of students' satisfaction between lecturers' competencies and students' loyalty?

## **2. Literature Review**

### **2.1 Underpinning theory**

Customer satisfaction is mainly underlined by the cognitive process and the emotional state of the individual (Mill, 2011). Expectancy-Disconfirmation paradigm theory was used as a baseline of this study. The customers are comparing their service experience with a standard which they have developed (Mill, 2011; Oliver, 1980). The resulting satisfaction or dissatisfaction is based on the expectation, attitude and the intention of the customers towards the products or services (Mill, 2011). Similarly, in the context of the study, students' evaluation will highlight the important aspect of competency looking by the students and how it influences their satisfaction.

The professional competency in education is at most important and it focusses on the lecturer's ability to learn new developments and adapt and get ready towards the competency-based education.

Competency-based education provides a significant role for teachers in modern society that ensures student progress in multiple mental faculties based on the role. The teacher or lecturer in the context of this study is a learning key, and potentially affect students' in-depth knowledge, in character building and understanding. Thus, the lecturer must be competent to ensure a good efficient and effective learning process to take place (Burke, 1989; Gibbons & Grant, 1980). It is supported by the previous study as the effectiveness of learning perceived by students generally influenced by the lecturer, and the effect is stronger with a positive self-efficacy among the students (Latip et al., 2020).

## 2.2 Variables of the study

*Knowledge and credential.* Subject knowledge is considered a primary determinant of lecturers' quality since knowledge transfer is the main activity performed (Awang, 2014), and it is a primary facet for students to learn the theoretical aspect of the course (Kashif & Ting, 2014). Indeed, lecturers is a referral for the subject and it affects the institution reputation (Wong et al., 2014).

*Pedagogy knowledge and skill.* Pedagogy is defined as a teaching knowledge which encompasses an entire aspect of teaching, including the decision on the material to use, curriculum, teaching approach, teaching methodology, and others (Awang, 2014). It has a strong relationship with the success and failure of the overall learning process (Kashif & Ting, 2014). A good pedagogy skill and knowledge also contribute to effective teaching and students' satisfaction (Carter & Yeo, 2016).

*Industrial experience* is a knowledge (theory and practical) obtained by being a part of the workforce in the industry. Theoretical knowledge and industry knowledge of the faculty members are a valuable aspect which students need while learning in the classroom (Kashif & Ting, 2014). It is imperative to ensure that, the theory part of the course and the practices of the industry are well integrated in the learning process, in order to produce qualified professionals who are highly marketable, thus reducing the unemployment rate among graduates (Hanapi & Nordin, 2014).

*Motivation* accounts for the level, direction, and persistent efforts found in an individual to accomplish definite objectives. Work motivation is important because it has a positive relationship with employee productivity and work performance. Pedagogical knowledge, belief, motivation, and self-regulation of a teacher have a positive correlation with student outcome (Kunter et al., 2013). Additionally, a study found that lecturer motivation, empowerment, and service quality have a positive relationship with the student satisfaction level (Yunus et al., 2010)

*Student satisfaction.* Satisfaction is the perception of service attainment in positive ways (Oliver, 1980). The expectation has an effect in determining individual satisfaction. Despite, the value perceived, quality received, and expectations are also positively correlated (Alves & Raposo, 2007). Lecturer competency significantly contributes towards student satisfaction and character development, which contribute towards a positive word of mouth marketing for the institution (Latip et al., 2019).

*Student loyalty.* Loyalty in higher education is an act that persists of study not only until the year of graduation but also thereafter in pursuing higher education in the same institution and returns benefits to the university in the long run. Loyalty and retention are the components of commitment that indicates a preference for a product or service to be consumed in the future (Carter & Yeo, 2016). A positive loyalty towards an institution contributes not only in the form of enhanced revenue, reputation but also in recommending the institution's name to the potential future students who are willing to pursue higher education (Latip et al., 2019).

## Lecturer competency and student performance

The task of lecturers is not merely to transfer knowledge but also to support and prepare students to become qualified professionals who will serve the nation well. In doing so, their own competency influences that of their students (Radzi et al., 2013). As such, competent educators from all facets of learning, comprising social interaction and professional, character, and personal qualities which represent a positive image towards students are highly needed (Hanapi & Nordin, 2014). The lecturers' credentials contribute directly to the positive image and reputation of the institutions. A poorly rated institution is commonly associated with poor academic staff, and this influences student satisfaction unswervingly (Wong et al., 2014). Moreover, a study found a significant association between student achievement and pedagogy knowledge of the lecturers. Student achievement is higher

if the lecturers have better pedagogical content knowledge, a professional belief, and are motivated in teaching (Kunter et al., 2013).

Pedagogical skills also provide lecturers' comprehension of ways to treat students differently, according to the individual needs and abilities to develop enthusiasm among students (Wong et al., 2014). Since there is a positive relationship between student academic performances and teaching skill, Muzenda (2013), pointed out that, training on a specific component of lecturer competency including teaching skill will lead to a better academic performance of the students.

Pedagogical skill is essential during the service encounter because the lecturers' approach has a strong relationship with the success and failure of the overall learning process (Kashif & Ting, 2014). A good pedagogy skill and knowledge contribute to effective teaching derived from a good knowledge and application of good teaching practices (Awang, 2014). Besides, students also expect to obtain the input of real industry during the learning process from the lecturers (Kashif & Ting, 2014). Thus, lecturers are expected to be complete resource persons for students to be able to link and correlate the theory part of the subject with current industrial practices.

Additionally, lecturer motivation, empowerment, and service quality have a positive relationship with student satisfaction level. Lecturer attitude and motivation are inter-correlated, and they create a conducive environment for both the students and the lecturers. Thus, students will feel motivated by the positive aura from the lecturers throughout the learning process (Yunus et al., 2010). For students to achieve their goal, motivation is crucial during the process of learning, and highly motivated lecturers are able to motivate their students (Latip et al., 2019).

### **Lecturer competency, students' satisfaction, and students' loyalty**

Teaching quality and lecturer competency are an essential variable contributing to student satisfaction (Wong et al., 2014). Despite perceived value of the students, service quality received, and expectation are correspondingly associated with satisfaction (Alves & Raposo, 2007). Loyalty in higher education can be understood as a persistence study until graduation, and returns benefit to the university for a long-term (Carter & Yeo, 2016). Indeed, it can be translated and measured through positive word of mouth and intention to purchase.

Teaching ability and subject expertise of the staff are topmost important reasons which determine student satisfaction (Douglas et al., 2006). Furthermore, the student also expects the lecturer to be expert in the academic and practical part of courses. It is even more crucial for hands-on courses (Latip et al., 2019). Motivation and enthusiasm in teaching, together with pedagogy knowledge, support lecturer in determining a perfect method to deliver a lesson in class and ensure a complete understanding among students (Kunter et al., 2013). Thus, it will lead to student satisfaction while the institution will accomplish its goal and remain profitable (Kashif & Ting, 2014).

Increasing perceived quality would escalate the level of student satisfaction. On the contrary, dissatisfaction not only affects loyalty but also student performance, including bad grade and unpleasant rapport with other people (Letcher & Neves, 2010). Somehow, student satisfaction will lead to student loyalty (Alves & Raposo, 2007). A satisfied student will create a positive word of mouth, often resulting in loyalty effects seen in a positive attitude of repeat patronage and recommendations to others (Annamdevula & Bellamkonda, 2016).

It is necessary for the university to provide excellent quality services, offering a wide choice of products, while promoting and maintaining excellent services for the students to ensure its sustainability in a competitive market (Carter & Yeo, 2016). Student satisfaction and image of the university are related to student loyalty in a way that, the satisfied student will perceive the university and the course undertaken as having a good image. The perception of students on a study programme will affect their perception of the university and their loyalty. Thus, the success of the university does not only depend on a good relationship with active students, but also with former students.

### **3. Methodology**

The study is a causal study deliberately to test either one variable causes another variable to change through a quantitative type of study using primary data (Sekaran & Bougie, 2016). A personally administered questionnaire was applied because of a large population involved. A non-contrived study

was used in this research. Newly registered and active students in Bachelor degree, Master's degree, and Doctoral degree were the targeted population to examine loyalty behaviour while the alumni were not invited to be involved due to potential contradictions in perception on the current market situation. Diploma level students were also not involved as they are doing a very first level of higher education level. Thus, there might be some limitations in the study about the development of expectation on the lecturer competency aspect. Customers often compare the service experience with a standard they have developed (Mill, 2011; Oliver, 1980).

Any academic research will be carried out at the significance level of 5%, alternatively at a confidence level of 95%. The respondents usually will return 30% of questionnaires distributed as per the literature. Any response rate of more than 30% is a great success in survey data collection. Based on the above facts, as per this formula the sample size is determines as follows.

$$SS = \frac{Z^2 * p * (1-p)}{C^2} \quad (1)$$

Where

SS = Sample size

Z<sub>2</sub> = Normal distribution ordinate level for 95% confidence level which is 1.96

P = Probability of getting back a questionnaire back

C<sub>2</sub> = Significance level which is 0.05 or 5%

$$(1.96^2 * 0.3 * 0.7) / 0.05^2 = 323$$

323 is the minimum sample required for this study to ensure the confidence level. The sample size is 386 and it exceeds the minimum required level. The pilot study was conducted involving 30 randomly approached students of Universiti Tun Abdul Razak (UNIRAZAK). Cronbach's Alpha value of the pilot study was 0.85. There were eight universities involved in the final data collection, namely, (1) Universiti Teknologi Mara (UiTM), (2) Universiti Putra Malaysia (UPM), (3) Universiti Teknologi Malaysia (UTM), (4) Universiti Malaya (UM), (5) Universiti Tun Abdul Razak, (6) Infrastructure University Kuala Lumpur (IUKL), (7) Universiti Kuala Lumpur (UniKL) and (8) Management Science University (MSU). An ethical principle of research was applied by the study during data collection. This study sought consent from every respondent to participate in the survey after informing that all information collected will be used only for academic research, will be kept confidential, not for making any pecuniary benefit and also not to sponsor any institution.

The questionnaire of the study consists of four sections. Section A of the questionnaire measures the independent variables of the study, namely, knowledge and credential, pedagogy knowledge and skill, industrial experience, and motivation, while Section B of the questionnaire measures the moderating variable of the study, which is student satisfaction. This is followed by section C, which measures student loyalty as a dependent variable. Lastly, section D measures the university selection factors of students and identifies the respondent demographic information.

### 3.1 Statistical analysis

The data were analysed using the Structural Equation Modelling (SEM) through Analysis of Moment Structure (AMOS) and Statistical Package for Social Science (SPSS). The multiple regression analysis was conducted to test the hypothesis of the study. Data screening was conducted through a maximum and minimum analysis to ensure that the data was decoded appropriately. Histogram and box plot analysis were conducted to test the normality of data. Extreme values were immediately removed prior to the analysis to ensure that, all of them were within a normal outlier. The Box plot analysis indicates a normal outlier of the data for all variables.

## 4. Data analysis and result

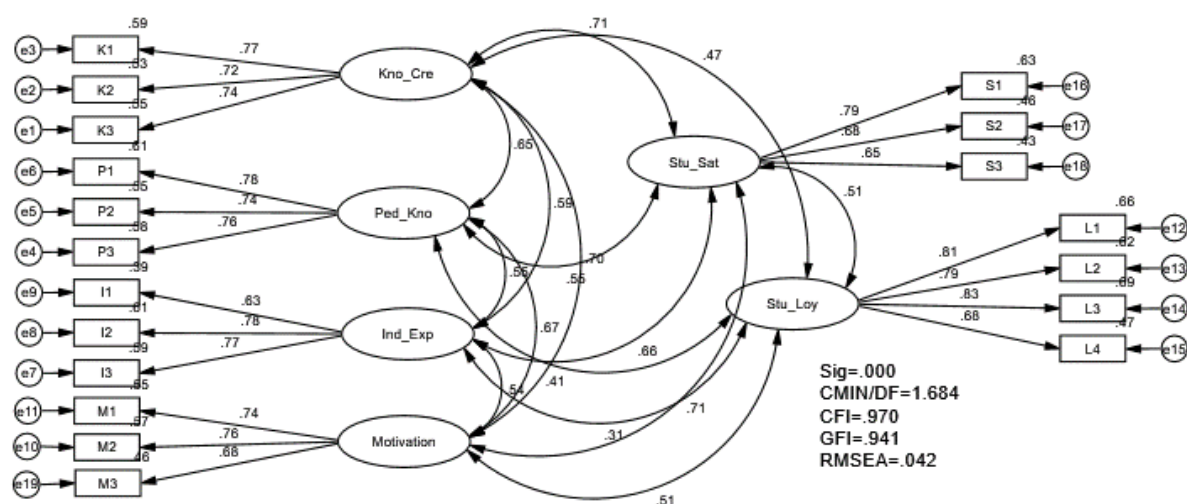
### 4.1 Demographic analysis

The demographic profile of respondents can be seen in Table 1, indicating that female respondents (71.8 per cent) outnumbered male respondents (28.2 per cent), which implies that there are more female students in the higher education institutions. Meanwhile, the majority of the respondents were aged between 18 to 29 years old (96.1 per cent), corresponding to the number of undergraduate students which formed the majority among the respondents (87.3 per cent). Meanwhile, the majority of respondents study in different institutions (56.5 per cent) and the remaining 43.5 per cent of them study at the same institutions. This might imply that there is a potential for loyalty effect to be taking place among the students.

**Table 1.** Respondents' profile of the study

		Frequency (N=386)	Percentage (%)
<b>Gender</b>	Female	277	71.8
	Male	109	28.2
<b>Age</b>	40 and above	2	0.5
	30 to 39	13	3.4
	18 to 29	371	96.1
<b>Education</b>	Master degree / Ph.D.	49	12.7
	Bachelor degree	337	87.3
<b>Students</b>	International student	15	3.9
	Malaysian student	371	96.1
<b>Institution</b>	Private University/ College	176	46
	Public University/ College	210	54
<b>Previous Institution</b>	Different	218	56.5
	Same	168	43.5

### 4.2 Full measurement model



**Fig. 1** CFA analysis

The Confirmatory Factor Analysis (CFA) was conducted to measure the model to verify the psychometric characteristics of each item in the instrument, while the reliability, convergent validity,

and discriminant validity were carried out using Cronbach Alpha analysis, Average Variance Extracted (AVE) and Composite Reliability (CR). The construct validity of the model was also conducted. The CFA results are shown in Figure 1 and Table 2, indicate that all loading factors scored are above 0.6, and it is sufficient to explain an excellent psychometric characteristic for each item. The model fitness in Figure 1 also indicates the CMIN/DF of 1.684. The GFI (.941) and CFI (.970). It is considered as a slightly good fit of the model. The model score of 0.042 with confidence interval on RMSEA indicates a good fitness of the model because it shows a close fit of the model with the level of freedom (Awang et al., 2018).

### 4.3 Reliability and validity analysis

The composite reliability (CR) and average variance extracted (AVE) in Table 2 indicate a proper validation on the construct. The CR score above 0.6 and AVE score above 0.5 show that the data achieves adequate convergent validity (Awang et al., 2018). Over half of the item variances were able to be represented by their construct, indicating that the data has a satisfactory convergent validity.

**Table 2.** The composite reliability (CR) and average variance extracted (AVE)

Construct	Item	Question	Load. factor	CR	AVE
Kno_Cre	K1	The lecturer is well qualified in the teaching courses (Kashif & Ting, 2014).	0.77	0.79	0.56
	K2	The lecturer has good experience in the subject taught (Kashif & Ting, 2014).	0.73		
	K3	The lecturer is able to explain theory part of the courses excellently (Kashif & Ting, 2014).	0.74		
Ped_Kno	P1	The lecturer uses teaching practices that grab our attention on the subject (Latip et al., 2019).	0.78	0.80	0.58
	P2	The lecturer organises activities for the student to actively participate in class (Moreno-Murcia et al., 2015).	0.74		
	P3	The lecturer uses teaching materials that facilitate learning (Moreno-Murcia et al., 2015).	0.76		
Ind_Exp	I1	The lecturer incorporates his/her industry professional experience in teaching (Carter & Yeo, 2016).	0.63	0.77	0.53
	I2	The lecturer has extensive industrial experiences (Latip et al., 2019).	0.78		
	I3	The lecturer explains how the industry works in real life (Latip et al., 2019).	0.77		
Motivation	M1	The lecturer sees the importance of his or her teaching towards student performance (Watjatrakul, 2014).	0.74	0.77	0.53
	M2	The lecturer is concerned about what I learn in classes (Watjatrakul, 2014).	0.76		
	M3	The lecturer looks energetic in class (Latip et al., 2019).	0.68		
Stu_Sat	S1	I am satisfied with my lecturer's knowledge of the theory aspect of the courses (Latip et al., 2019).	0.79	0.75	0.50
	S2	I am satisfied with the industrial experience of my lecturer (Latip et al., 2019).	0.68		
	S3	Overall, I am satisfied with the lecturers here (Latip et al., 2019).	0.66		
Stu_Loy	L1	I feel proud to study at this University (Annamdevula & Bellamkonda, 2016).	0.81	0.86	0.61

Construct	Item	Question	Load. factor	CR	AVE
	L2	I care about this university (Annamdevula & Bellamkonda, 2016).	0.79		
	L3	I will refer this university to my family and friends (Annamdevula & Bellamkonda, 2016).	0.83		
	L4	I prefer to further my study here in the future (Latip et al., 2019).	0.68		

Table 3 shows the value of each diagonal square root AVE for the construct, together with the correlation value of the construct. As the diagonal value is higher than the value under its correlation, the discriminant validity as achieved (Awang et al., 2018).

**Table 3.** Result of AVE and squared correlations of each construct.

Construct	Stu_Loy	Kno_Cre	Ped_Kno	Ind_Exp	Motivation	Stu_Sat
<b>Stu_loy</b>	<b>0.78</b>					
<b>Kno_cre</b>	0.47	<b>0.75</b>				
<b>Ped_kno</b>	0.41	0.65	<b>0.76</b>			
<b>Ind_exp</b>	0.31	0.59	0.55	<b>0.73</b>		
<b>Motivation</b>	0.51	0.70	0.67	0.54	<b>0.73</b>	
<b>Stu_sat</b>	0.51	0.71	0.55	0.66	0.71	<b>0.71</b>

#### 4.4 The direct effects hypothesis

The formative analysis between lecturers' competencies and student satisfaction in Table 3 revealed that, when knowledge and credential go up by 1, student satisfaction goes up by 0.346 with a *p*-value of 0.001. Thus, H1 is supported (Knowledge and credential have a significant relationship with student satisfaction). Next, when industrial experience goes up by 1, student satisfaction increases by 0.279 with a *p*-value of 0.001. So, H3 is supported (Industrial experience have a significant relationship toward student satisfaction). Besides, when motivation goes up by 1, student satisfaction increases by 0.345 with a *p*-value of 0.001. Therefore, H4 is accepted (Motivation have a significant relationship with student satisfaction). However, H2 of the study was rejected (Pedagogy knowledge and skill have a significant relationship towards student satisfaction). When pedagogy knowledge and skill increases by 1, student satisfaction reduces by -0.075 with a *p*-value of 0.350.

Meanwhile, the analysis of the lecturers' competency and student loyalty revealed a different result. Out of four variables, only one variable was found to be significant. When the motivation of the lecturer increases by 1, student loyalty increases by 0.263 with a *p*-value of 0.04. Thus, only motivation was found to be statistically significant and H8 is accepted (Motivation have a significant relationship towards student loyalty). Meanwhile H5, H6 and H7 were rejected (Knowledge and credential; Pedagogy knowledge and skill; Industrial experience have a significant relationship with student satisfaction).

The H9 of the study was accepted as an analysis between student satisfaction and student loyalty indicates a significant positive relationship (Student satisfaction have a significant relationship toward student loyalty). When student satisfaction increases by 1, student loyalty increases by 0.341 with a *p*-value less than 0.05.



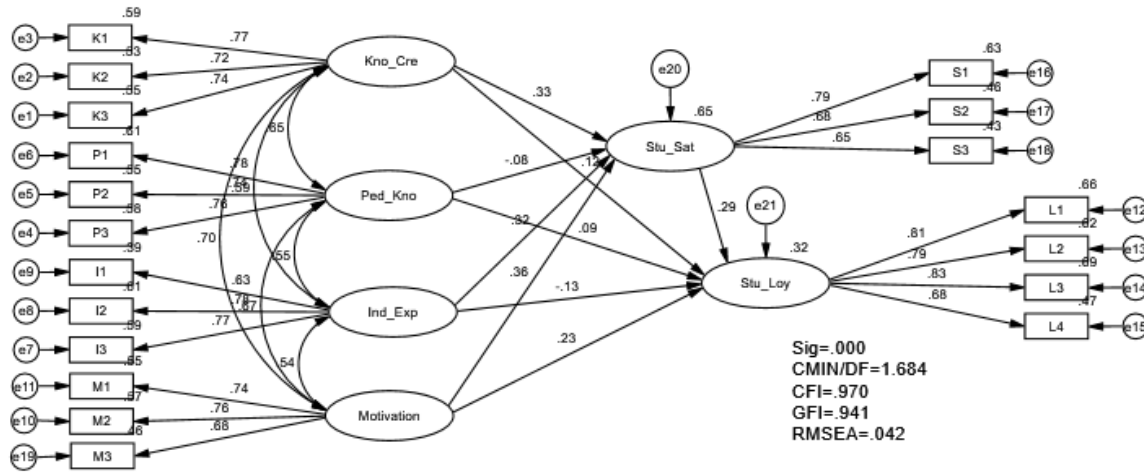


Fig. 2 Structural model of study

Table 3. Direct relationship analysis

Relationship tested		Est.	S.E.	C.R.	P	
Kno_cre	□	Stu_sat	0.346	0.101	3.431	0.001
Ped_kno	□	Stu_sat	-0.075	0.08	-0.935	0.350
Ind_exp	□	Stu_sat	0.279	0.066	4.255	0.001
Motivation	□	Stu_Sat	0.345	0.092	3.763	0.001
Kno_cre	□	Stu_loy	0.147	0.136	1.08	0.28
Ped_kno	□	Stu_loy	0.099	0.103	0.969	0.332
Ind_exp	□	Stu_loy	-0.132	0.092	-1.427	0.154
Motivation	□	Stu_Loy	0.263	0.128	2.059	0.04
Kno_cre	□	Stu_loy	0.341	0.143	2.389	0.017

#### 4.5 The bootstrapping and hypothesis of the mediation effect

The bootstrapping test was applied to examine the mediating effect of student satisfaction purposely to assign measures of accuracy to sample estimates (Awang et al., 2018). The study selected 2000 bootstrap samples, with 90% of the bias-corrected confidence interval. The summary of the results is as in Table 4. Knowledge and credential, and industrial experience have a full mediation effect on student satisfaction as the standardized indirect effects are significant with a *p*-value less than 0.05, although the direct effect is not significant as the *p*-value is more than 0.05. Thus, it fully supports the H10 (Student satisfaction mediates the relationship between knowledge and credential and student loyalty) and H12 (Student satisfaction mediates the relationship between industrial experience and student loyalty). However, H11 of the study was rejected as the direct effect and indirect effect tested are insignificant with a *p*-value more than 0.05 (Student satisfaction mediates the relationship between pedagogy knowledge and skill and student loyalty).

Motivation was found to have a statistically significant relationship on the direct effect with a *p*-value of less than 0.05. Similarly, there was a positively standardized indirect effect with a score of 0.105 (*p* = .05) of motivation, which supports H13 (Student satisfaction mediates the relationship between motivation and student loyalty). Thus, there is a partial mediation effect of the first mediation relationship tested

**Table 4.** Summary result of bootstrapping, direct and indirect effect

Hypothesis	Standardised Direct effect (x → y)	Standardised Indirect effect	Result
Kno_cre → Stu_sat → Stu_loy	0.326	0.095*	Full mediation
Ped_kno → Stu_sat → Stu_loy	-0.079	-0.023	No mediation
Ind_exp → Stu_sat → Stu_loy	0.316	0.092*	Full mediation
Motivation → Stu_sat → Stu_loy	0.360*	0.105*	Partial mediation

Note: \*\*\*= $p < 0.00$ ; \* =  $p < 0.05$

## 5. Research finding, implications, limitations and future research direction

The analysis shows that only three antecedents of lecturers' competencies were statistically significant with students' satisfaction, namely, knowledge and credential, industrial experience, and motivation. Meanwhile, only motivation was found to be statistically significant with student loyalty. Moreover, the study identified a significant relationship of loyalty on student retention and positive word of mouth.

Theoretically, knowledge and credential were found to be statistically significant because knowledge transfer is the primary process that occurs in an institution. Indeed, the subject expertise of the staff is an essential reason which determines student satisfaction with institutions service quality, and a primary reason for students to further their study, as supported by previous studies (Annamdevula & Bellamkonda, 2016; Kashif & Ting, 2014; Latip et al., 2019; Santhi & Ganesh, 2015). Students also expect to learn about real industry practices in tandem with the IR 4.0 era to secure their job upon graduation. This theoretically explains the importance of lecturers' industrial experience on students' satisfaction. Further, a decisive engagement which exists between motivated lecturer and students potentially explain the significance of motivation variable as supported by a previous study (Yunus et al., 2010). This is expected to result in a stress-free environment to get lecturers' feedback and to have better communications for an opinion on another vital aspect of student life. Thus motivated lecturers will portray a positive and open environment for the students, thus lessening the barriers which exist between them.

Pedagogy knowledge and skill of lecturers was found to be not statistically significant, a result which contradicts with a previous study (Douglas et al., 2006; Kunter et al., 2013). It is potentially due to the shifting of teaching and learning towards interactive learning in the current era. The students are shifting toward a millennial and information technology literate generation; the lecturer is not the only sources of information exists. There is plenty of platforms, including online learning forum, video, and even virtual learning available, compared to the previous decade. Moreover, widely available resources that are available 24 hours potentially serve as a reason for the inconsistency besides generation preferences factor. Such experience did not exist during the old days where the lecturers were the primary and only source of learning, putting a total dependency on their pedagogy skills.

Moreover, the study found that students' satisfaction mediates the relationship between lecturers' competencies (knowledge and credential, industrial experience and motivation) and students' loyalty. If students are satisfied, there is a tendency for them to be loyal too and vice versa. This is supported by previous research in this aspect (Alves & Raposo, 2007; Annamdevula & Bellamkonda, 2016; Letcher & Neves, 2010). However, satisfaction is not the only factor that contributes towards the loyalty of the students because loyalty is a multifaceted concept that differs individually, according to their position and condition.

### 5.1 Study limitations

The research only focused on the four lecturers' competencies variables, namely, knowledge and credential, pedagogy knowledge and skill, industrial experience, and motivation as one of the attributes of quality service in education, whereas there are perhaps other variables which could affect the relationship tested. Moreover, a country with a different higher education setting might not be relevant to the finding. Primary and secondary schools in Malaysia with a different environment and

setting might not suit the finding. The study also has limited capabilities to reach respondents on each higher education institution in Malaysia where the range of programme fees charged might be different, besides time constraints and budget factor.

## 5.2 Implication and suggestion

**Theoretical:** The study emphasized on four aspects of lecturers' competencies, namely, knowledge and credential, pedagogy knowledge and skill, industrial experience and motivation which provide fresh insight towards the academic aspect based on the current market condition and customer demand. There are scarce studies conducted with all variables focusing intensely on lecturers' competencies, students' satisfaction, and students' loyalty aspects in this digital era. This study, on the other hand, directly contributes to a better understanding of the role of lecturers' competencies towards students' satisfaction and loyalty as one model. Indeed, the study gives new insight for global higher education on the importance of lecturer competency toward delivering outstanding teaching and maintain institution sustainability.

**Practical:** Knowledge and credential, industrial experience, and motivation of lecturers should be the central consideration aspect of employing new lecturers for all institution globally. Besides, as the finding suggests, the personal growth of the lecturers must be considered by the institution to ensure their continuous motivation. Lifelong learning from academic aspects and hand-on industry aspects must be taking place internally to support the growth and development of the lecturers themselves. Strong relationships internally between management and among lecturers are also to be developed. This will lead to a cross-reference and idea-sharing from different generations of the lecturers and give a better insight into the traditional and latest practices of the industry. Professional industrial placement for lecturers can be implemented for them to get the latest technological know-how and practices while also developing good networking with the industry. All of these efforts will improve the lecturers' competencies as educators and moderators for the students that will significantly improve graduates quality.

## 5.3 Future research direction

The same study can be conducted for a different country, including the first and third class foreign country to see the effect of the national economy on customer expectation and demand. Moreover, as the numbers of a private school in Malaysia are increasing, the study can also be conducted on primary and secondary schools as a targeted population of the study. Another aspect of lecturers' competencies can be tested to give a better understanding of the topic aligned with the changing of demand and market. Moreover, additional moderators and mediators can be used to broadly understand the concept, including the programme fees charged by the institution. Source of the fund and the association with the programme fees in the overall model also can be included.

## 6. Conclusion

The study identified three critical variables of lecturers' competencies significant towards students' satisfaction, namely, knowledge and credential, industrial experience, and motivation. Meanwhile, only motivation was found to be significant towards students' loyalty. Besides, pedagogy knowledge and skill was found to be insignificant towards student satisfaction and student loyalty in this study. The study also identified a substantial association of loyalty on student retention and positive word of mouth. Somehow, the students might not further their study at a similar institution because of several factors. Based on the data obtained, the most to the least important factors affecting student judgement to enrol in the institution are in the following order; facility of the university, credibility of the university, programme fees charged, competencies of lecturers and availability of courses offered. The study also identified a significant relationship of students' satisfaction between lecturers' competencies and students' loyalty as a mediation effect.

The finding of the study strengthens the importance to maintain and deliver a good service quality by the institution, primarily through competent lecturers, as it will lead to loyalty of the students and sustainability of the institution itself. Even though students have no intention to further their study

to the next level after completion of their present study, somehow the sense of belonging remains in them. This will result in an unpaid promotion through positive word of mouth and recommendation to family and people around. Student will have a better understanding of the subject, and the institution will be likely to sustain and possibly to get more business without heavily relying on paid promotional activities. All the recommendations made, if taken accordingly, will also contribute towards creating a positive brand awareness about the institutions.

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