

## The Factors Influencing Students' Academic Satisfaction in Higher Education

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### Abstract

Higher education institutions have rigorous procedures to achieve excellence, with student academic satisfaction being one of the main foci of all efforts to achieve success. This study identifies the determinants of academic satisfaction. The study also identifies the differences in academic satisfaction between genders. 328 respondents were selected as the sample among students in the Faculty of Business and Management and the Faculty of Science and Mathematics in one of the main college campuses in Kelantan, using stratified random sampling. Data collection was done using a self-report questionnaire. The resulting data were analysed using multiple linear regression (MLR) and independent T-test. The results indicate that sense of belonging, student interaction, and course evaluation are significantly positively related to academic satisfaction. The results also show no significant difference in academic satisfaction between genders. This topic was found to be important for educators, administrative teams, and policy makers because it provides them with the necessary background knowledge about the factors that influence the success of higher education.

**Keywords:** Satisfaction; Academic; Programme; Higher Education; Student

### INTRODUCTION

Academic satisfaction refers to the subjective evaluation of the overall educational experience and is defined as a psychological state resulting from students' expectations of their academic reality. Academic satisfaction is a continuous process that is influenced by the quality of education and students' perceptions of the learning environment (Ramos et al., 2015). Good academic satisfaction helps prevent psychological distress and encourages students to try harder to succeed academically (Antaramian, 2015; Al-Sheeb et al., 2018). Students who are satisfied with their academic experience are more likely to succeed in the workforce and are better prepared to enter and compete in the global workforce (Kakada et al., 2019). Academic satisfaction is closely related to the quality of student learning (Ramos et al., 2015). The evaluation of academic satisfaction also takes into account the institutional environment, the quality of the course, the relationship between theory and practise, the quality of teaching, the evaluation system, contact with professors and peers, the content of the curriculum, the teaching strategy, the teaching staff, and the course administration (Azila-Gbettor et al., 2022; Ramos et al., 2015). To maintain the competitiveness of higher education institutions, students must be provided with a high-quality learning environment (Kakada et al., 2019).

Institutions of higher education need to be aware of the value of student satisfaction because it influences both the likelihood that current students will continue their education there and the likelihood that they will pass on their positive experiences to potential new students. Academic dissatisfaction can

cause students to drop out, transfer to another college, or worse, lose motivation to continue their studies. In 2017, 2,096 (23.8%) dropped out because they lost interest in their studies (Amir-ud-Din et al., 2021). The rate of dropouts in Malaysian higher education institutions has resulted in tremendous academic and administrative waste and negative social impact on the country (Sangodiah et al., 2015). Higher education institutions in Malaysia should come up with a plan to overcome this problem. Although much has been done, more studies need to be conducted on academic satisfaction. The aim of this study is to investigate the basic determinants of academic satisfaction among students in higher education. This topic has been identified as important to faculty, management team, and policy makers as it will provide them with the necessary background knowledge on the factors that influence the success of higher education.

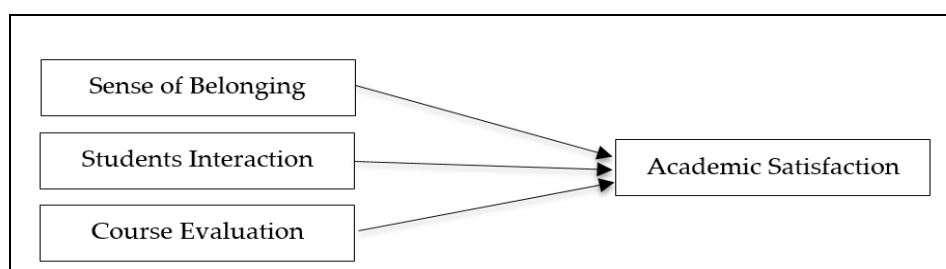
## MATERIALS AND METHODS

### *Ethics Approval*

This study was approved by the UiTM Research Ethics Board with reference to ethics approval letter BREC/01/2023(UG /MR/06).

### *Study Framework*

In this study, there are three independent variables (sense of belonging, student interaction, and course evaluation) and one dependent variable (academic satisfaction), as shown in Figure 1. In this study, sense of belonging refers to students' perceived social support on campus, a sense of belonging and feeling welcomed, respected, valued, and important to the group or others on campus. Student interaction refers to a reciprocal action or effect between students and others, especially faculty and fellow students. Course evaluation refers to educational evaluations for quality assurance. Academic satisfaction refers to students' learning quality in their educational context and students' perceptions of their learning environment.



**Figure 1** Study Framework

### *Study Design*

This study used a cross-sectional design with a self-administered questionnaire to collect data. To achieve the objectives of the study, a total of 1,324 students from one of the largest universities in Kelantan were selected as the population. With an acceptable value of sampling error (0.05), 328 students from two faculties were selected as samples using stratified random sampling technique.

### *Instrumentation*

The questionnaire was divided into five parts: Part A, Demographic Data; Part B, Sense of Belonging; Part C, Student Interaction; Part D, Course Evaluation; and Part E, Academic Satisfaction (see Table 1).

**Table 1:** Summary of The Questions by Part

Part	Variable	No. of items	Sources
B	Sense of Belonging	3	Al-Sheeb et. al., 2018
C	Students Interaction	6	
D	Course Evaluation	12	
E	Academic Satisfaction	5	Ang et. al., 2019

### Data Analysis

Table 2 shows a summary of the data analysis. In this study, multiple linear regression (MLR) is used to address the first objective, and an independent t-test is used for the second objective to identify any differences in academic satisfaction between genders.

**Table 2:** Summary of Data Analysis

Objectives	Method of Analysis
To identify the relationship between a sense of belonging, student interaction, course evaluation, and academic satisfaction.	Multiple Linear Regression
To determine if there is a significant difference in academic satisfaction between genders.	Independent T-Test

## RESULT

### Preliminary Study

Thirty randomly selected respondents were included in the pilot study. Table 3 shows the results of the reliability test for the pilot study. All variables had Cronbach's alpha values greater than 0.5, indicating that each variable had good internal consistency reliability.

**Table 3:** The Reliability Statistics for All Variables for Pilot Study

Variable	Cronbach's Alpha
Sense of Belonging	0.763
Students Interaction	0.802
Course Evaluation	0.939
Academic Satisfaction	0.920

### Demographics of respondent

Table 4 shows that most of the respondents were female students, with 76.4% of the total number compared to male students. The age of the respondents was mostly between 21 and 22 years old. In addition, the number of respondents was higher among 5th year students. The results also showed that the programme with the highest percentage was BA242, with 31.1%. Most of the respondents had a CGPA score between 3.50 and 4.00, followed by the 3.00 - 3.49 category.

**Table 4:** Descriptive Table of Respondents Demographic

		Frequency	Percentage
Gender	Male	78	24.1
	Female	246	75.9
Age	19-20	13	4.0
	21-22	260	80.2
	23-24	48	14.8
	25 and above	3	0.9
Semester	1	5	1.5
	2	17	5.2
	3	89	27.5
	4	39	12.0
	5	100	30.9
	6	63	19.4
	7	9	2.8
	8	2	0.6
Programme	BA240	55	17.0
	BA242	100	30.9
	BA249	53	16.4
	BA250	49	15.1
	CS241	61	18.8
	CS291	6	1.9
CGPA	2.00 - 2.49	1	0.3
	2.50 - 2.99	21	6.5

	3.00 – 3.49	130	40.1
	3.50 – 4.00	172	53.1

*Model Adequacy Checking*

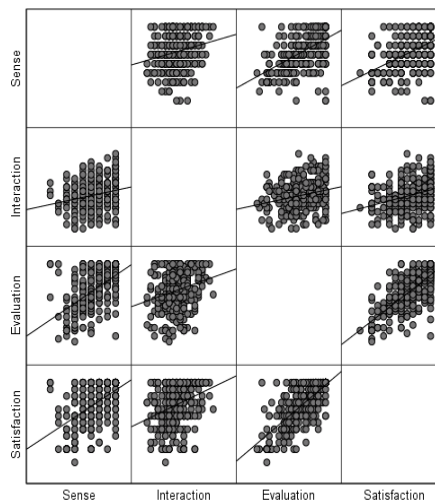
Model adequacy checks include the assumption of linearity between independent and dependent variables, normality of residuals, homoscedasticity, and multicollinearity.

- *Linearity*

Table 5 shows that there is a significant relationship between sense of belonging ( $r=0.536$ ,  $p\text{-value} < 0.05$ ), student interaction ( $r=0.388$ ,  $p\text{-value} < 0.05$ ), and course evaluation ( $r=0.739$ ,  $p\text{-value} < 0.05$ ) with academic satisfaction. Figure 1 shows the scatter plot matrix between IVs and DV. The plots show that there is a straight line pattern between all independent and dependent variables, indicating that there is a linear relationship between them.

**Table 5: Pearson Correlation**

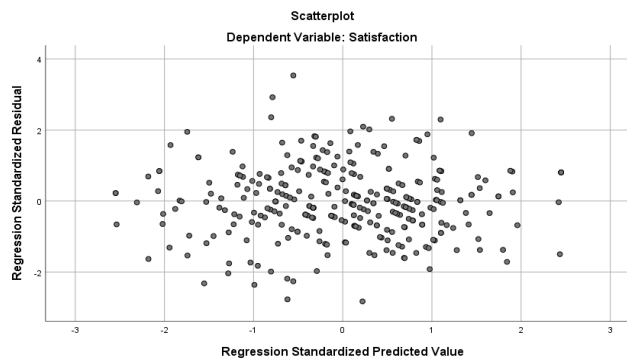
Variable	Pearson correlation	p-value
Sense of Belonging	0.536	<0.001
Students Interaction	0.388	<0.001
Course evaluation	0.739	<0.001



**Figure 1: Scatter Plot Matrix between Dependent and Independent Variable**

- *Homoscedasticity*

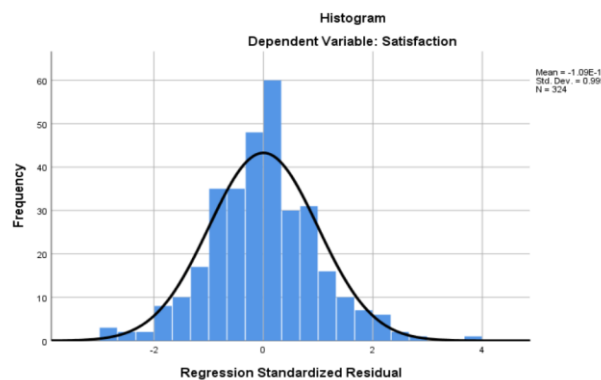
Figure 2 shows that the residuals are randomly scattered and have no obvious pattern, indicating that homoscedasticity (residuals have constant variance and are unbiased) is satisfied.



**Figure 2: Scatter Plot for Academic Satisfaction**

- *Normality*

Figure 3 shows a bell-shaped histogram indicating that the distribution of the residuals is normally distributed and thus satisfies the assumption of normality of the residuals.



**Figure 3:** Distribution of Residual for Satisfaction

*Multicollinearity*

The multicollinearity test is performed to determine whether or not the independent variables in the model are closely related. Table 6 shows that there is no evidence of multicollinearity for all variables, as the tolerance values for sense of belonging (0.656), student interaction (0.872), and level of course evaluation (0.643) are greater than 0.1. In addition, the VIF values are all less than 10, namely 1.524, 1.147, and 1.556. Therefore, there is no multicollinearity problem in this model.

**Table 6:** Coefficients form multicollinearity assumption

Variables	Collinearity Statistics		Findings
	TOL	VIF	
Sense of Belonging	0.656	1.524	No Multicollinearity
Students Interaction	0.872	1.147	
Course Evaluation	0.643	1.556	

*Significant of model*

The significance of the model is used to determine if the linear regression model fits the data. Next, the R<sup>2</sup> value provides a measure of how much of the variation in the dependent variable is explained by the independent variables. The closer R<sup>2</sup> is to 1, the better the model fit. Table 7 shows a value of the F-statistic (F=148.640, p-value < 0.05) indicating that there is a significant regression model, and the R<sup>2</sup> value (0.582) means that 58.2% of the total variation in academic satisfaction can be explained by sense of belonging, student interaction, and course evaluation, while the remaining 41.8% is explained by other factors.

**Table 7:** Analysis of Variance for MLR test

Model	Sum of square	df.	Mean Square	F	p-value	R <sup>2</sup>
Regression	70.487	3	23.496	148.640	<0.001	0.582
Residual	50.583	320	0.158			
Total	121.070	323				

*Significant of independent variable*

From the results in Table 8, it can be concluded that all independent variables (sense of belonging, student interaction, and course evaluation) have a significant impact on student satisfaction, with all p-values below 0.05.

**Table 8:** Coefficient for MLR test

Variable	Unstandardized coefficient	p-value	95% confidence interval	
			Lower	Upper
Constant	0.670	<0.001	0.321	1.020
Sense of Belonging	0.138	0.001	0.054	0.222
Student Interaction	0.137	0.001	0.064	0.209
Course Evaluation	0.641	0.000	0.547	0.734

### Independent T-test

To determine whether there is a statistically significant difference between the means of two unrelated groups, an inferential statistical test called the independent t-test is used, the result of which is shown in Table 9. The F-value for Levene's test is 0.154 (p-value > 0.05), indicating homogeneity of variance. In addition, the independent t-test shows no significant difference between academic satisfaction and gender (t-statistic = 0.389, p-value = 0.698).

**Table 9:** Independent T-test Result

Levene's test		Independent t-test			
F-value	p-value	Gender	Mean	t-statistics	p-value
0.154	0.695	Male	4.3513	0.389	0.698
		Female	4.3203		

### Summary of The Findings

The results of the entire study are summarized in Table 10.

**Table 10:** Summary of The Findings

Relationships	Findings
There is a relationship between a sense of belonging, student interaction, course evaluation, and academic satisfaction.	Supported
There is a significant difference in academic satisfaction between genders.	Not Supported

## CONCLUSION

The MLR results show that sense of belonging, student interaction, and course evaluation have a significant and positive impact on student satisfaction. These results are consistent with the findings of previous studies (Lekkas et al., 2013; Martin et al., 2018; Rahmatpour et al., 2021; Rodriguez et al., 2019). The study An independent t-test was later conducted to test the second objective, and the results showed that there was no significant difference in academic satisfaction between genders. The result is consistent with Shantakumari and Sajith (2015) who found that male and female students are similar in terms of academic satisfaction. It is hoped that these findings will help the management team to develop appropriate action plans to provide quality education and ensure student satisfaction. A longitudinal design is recommended as an option for replication of this study to examine the factors that influence academic satisfaction. A longitudinal design will help researchers obtain more relevant information. It is also suggested that future studies include more independent variables as academic satisfaction may also be influenced by other factors.

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