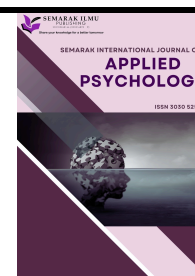




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# Binary Logistic Regression Model: Factor Influencing the Intention to Pursue Further Study at Higher Education Institutions in Malaysia among STPM Students

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### ABSTRACT

Student's intention to pursue their further study is influenced by many factors nowadays because they have many channels if compared to previous. STPM students can choose to continue study at higher education institution in Malaysia or abroad because the certificate is also recognised by foreign countries. They are able to differentiate the cost and benefit of their chance to further study. Hence, the objective of this study is to investigate the factors influence the intention of STPM students to further their study at higher education institution in Malaysia. The primary and quantitative data are used for this study. Questionnaires are distributed to 254 selected respondents among the STPM students who study at the government school in Kulai, Johor. Moreover, the binary logistic regression model is applied in this study. From the results, most of the students have intention to pursue their further study at higher education institution in Malaysia. Moreover, the value of education and the physical facilities have the likelihood to influence the student's intention. Hence, these factors need focused by the government to reduce the brain drain in Malaysia.

## 1. Introduction

Malaysians or rakyat also very concerned about the education in each family. This can be shown by the number of the graduate is increasing year by year because the education can change the future not only the individual but also the family. Therefore, each family will try their best to send their children learning in the higher education institution to gain the knowledge, skills either soft skill or hard skill, experience and social life to improve their children. Besides, the demand to the job market is depend on the level of education besides the experience of the individual. This will encourage the students choose to further study at the higher level of education institution. Malaysia is becoming the region's education hub which not only attract the local student but also attract the foreign student to choose Malaysia for further their study at the higher education institution in Malaysia. It seen be the demand of the education in Malaysia is quite high in recent year. Hence, the education

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market in Malaysia not only provided by the public but also the private. Each institution will implement each strategies in term to attract the students' choice which further study at their institution. Students is a group which can make the rational decision about their intention to further study. They will select the institution which give them the better education and environment according to their background to maximise their wants and need. Hence, the competitive in the education sector nowadays is very high because the institution not only need to maintain good reputation but also need to fulfil the students' wants.

The education system in Malaysia also divided into five stages, which are pre-school education, primary education, secondary education, post-secondary education and the higher education or tertiary education. Nowadays, the ministry of education fixed the primary education and the secondary education as a compulsory for every students in Malaysia. Meanwhile, the post-secondary education and the tertiary education are the individual choice to the students which according to their ability and their background. Hence, the national education system had a 1-6-3-2-2 structure which indicate the number of schooling year for each level [19]. Hence, there are several channel such as the form six, matriculation classes, foundation classes and polytechnics which are provided by the government, the A-level or foundation level provided by the private education and the overseas pre-u including the CPU and SAM before entering the higher education institutions. According to the UNESCO (1998), [27], higher education comprised all post-secondary education, training and research guidance at education institutions.

**Table 1**

Number of public high education institution and private high education institution

Year / Sector	2007	2017	2018	2019
Public				
Public University	20	20	20	20
Polytechnic	22	36	36	36
Community College	37	94	94	94
Sub-total	79	150	150	150
Private				
Universities	32	53	53	53
Foreign university branch campus	5	10	10	10
University colleges	0	35	38	39
Colleges	563	397	351	347
Sub-total	600	495	452	449
Total	679	645	602	599

Source: Ministry of Education, Department of Higher Education, Department of Polytechnic and community college

From the Table 1, the higher education institution is according to the sector. In the public sectors have 150 institution in year 2019, including 20 public university, 36 polytechnic and 94 community college. Meanwhile, there is 449 institution in the private sector which include 53 private university, 10 foreign university branch campus, 39 university colleges and 347 colleges. From the Table 1.2.1, it can be seen clearly the difference among the institution before 10 years ago (year 2007) and after 10 years ago (year 2017). For the public university, the quantity of institution remains the same. The polytechnic increased by 14 institutions from 22 to 36 while the community increased sharply from 37 to 94 which increased by 57 institutions. Regard the private sector, it can be seen there are many colleges had been recognised by the government and upgrade the university or the university college. For instance, the private university increased from 32 to 53 while the university colleges increased from none to 35.

**Table 2**

Student enrolment

Sector/year	2014	2015	2016	2017	2018
Public University	563 186	540 638	532 049	538 555	552 702
Private higher education institution	493 725	580 928	695 026	666 617	668 689
Total	1 002 911	1 121 566	1 227 075	1 205 172	1 221 391

Sources: Ministry of Education, 2019

From the Table 2, the total student enrolment in the higher education institution is increasing from 2014 to 2018 which is from 1 002 911 students to 1 221 391 students. Within this five years, the number of students increased as 21.78%. In 2014, the enrolment of students in public university (563 186) is exceed the enrolment of students in private higher education institution (493 725). However, this enrolment of students in private higher education institution in year 2018 (668 689) is exceed the enrolment of students in public university (552 702). Hence, this difference shown that the choice of the student himself to the higher education institution is depend on the several factors.

The Malaysian High School Certificate or in Malays called Sijil Tinggi Persekolahan Malaysia (STPM) is one of the students' option to further their study after finishing their SPM. STPM is the pre-university programme which is the preparation to enter the public university or the private university for degree. STPM was monitored and managed by the Malaysian Examination Council (MPM). There are two main streams in STPM which are the science stream and art stream. The system of the STPM had been changed from terminal system which 100% of the exam based to the modular system which the around 20% to 40% of the school-based assessment and the around 60% to 80% of the centralised examination since 2012. Due to modular system, the one and half year STPM divided into three semester which every semester take the period as 6 months. Besides, there is a centralized examination in the end of every semester and the students can choose to retake for repair their result for the semester one and two. The STPM is recognised by the higher education institution either Malaysia or the foreign countries. Besides that, it is the best choice for the students who come from the low-income family because there is no tuition fee charged for the STPM (MOE, 2019).

**Table 3**

Number of STPM students

Year	2005	2014	2015	2016	2017	2018
Number of Students	81 142	43 789	44 179	46 908	45 487	45 084

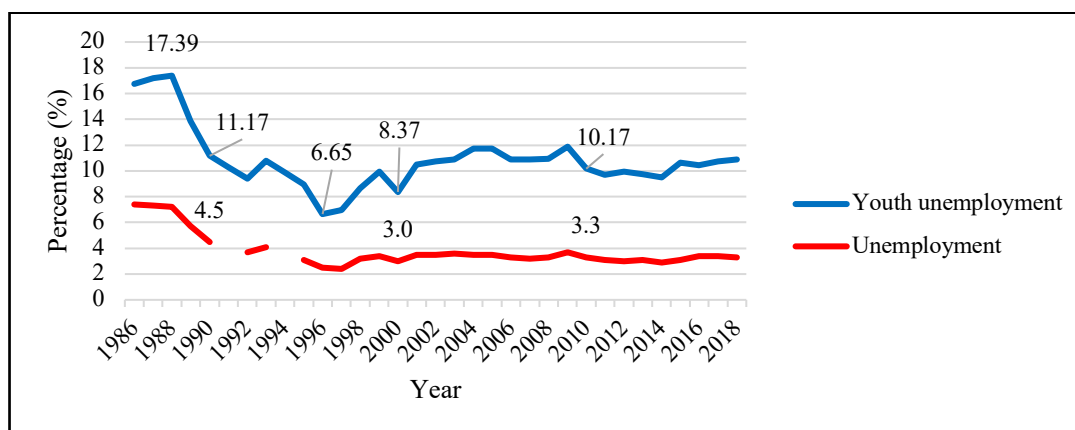
Source: Ministry of Education, 2019

From the Table 3, the number of STPM students is decreasing if compared to 13 years ago which is 2005. However, the number of students still is exceed more than 40 000 people. Parents will send their children to the matriculation because this will easier to get the place of the programme which is preference by themselves. However, increasing in the quota of the matriculation without increasing the enrolment quota in the public university will lessen the place of STPM students at the higher education institution. Some of the flying colour STPM students will choose to study abroad instead of studying in Malaysia because of the places issue. The course which offered to the STPM students which not the student's preference will make the STPM students turn over and decide not to study at higher education institution in Malaysia.

The youth unemployment become serious nowadays in Malaysia. It have achieve double digit during this recent years and the value is triple than the total unemployment rate. It becomes worse

with the impact of Industrial Revolution (IR) 4.0 which most of the job is replaced by the automation and the robotics. Hence, 38 programmes which related with sports psychology, animation and creative technology, entrepreneurship and commerce and electric and electronic telecommunication engineering offered from the 19 public universities were dropped [8]. This is because these programmes fail to meet the needs of the industries made the graduates difficult find a job in the future. Therefore, the programmes nowadays which offered by the universities need to be modified and changed suitable with the demand of IR 4.0. The changes not only in the technical education of the content, but also need to develop new education programmes which fulfil the IR 4.0. Hence, it requires the university able to produce the graduates who able to think critically and creative [21]. Therefore, the content of the programmes which offered by the university is concerned by the students before choosing to pursue their study at the higher education institution in Malaysia.

Moreover, the allocation of the budget will influence the tuition fee charged by the higher education institution. In year 2018, University Tunku Abdul Rahman (UTAR) and the Tunku Abdul Rahman University College (TAR UC) increase slightly to their tuition fee [1]. This is because of the adjustment of the inflation in year 2009 and the cut of the allocation for the development fund by the government. Regard the public university, the University Malaya (UM) tuition fees for the local students have been increased by RM50 while for the international students have been increased at least three times more without any prior notice to the students [27]. Hence, increasing of the tuition fee will increase the student's burden because most of the students is depend on the loan of the national higher education fund (PTPTN). The fee will influence the decision of the new generation either to continue study or stop to study at higher education institution in Malaysia.



**Fig. 1.** Youth unemployment and unemployment in Malaysia from 1986 to 2018

Sources: DOSM, 2019

Furthermore, the increasing of the total number accepted into matriculation from 25 000 places to 40 000 places with the racial quota keep unchanged which is 90% for the Malays while other 10% is for non-Malay students [20]. The larger intake of the matriculation students will be reduce the opportunity of the STPM students to get their preference university and programmes such as the medical, dental and engineering. As the students are rational to make their choice, they will compare the cost and benefit between the choice of study in higher education institutions in Malaysia or higher education institutions in abroad or enter the labor market.

Hence, the objective of this study is to use the binary logistic regression to predict the probability that an observation falls into one of two categories of a dichotomous dependent variable which are have intention or not have intention to pursue their further study at higher education institutions in Malaysia among STPM students.

The decision making among the students in education is according to the socioeconomic concept which is from the combination of the economic concept and the sociological concept. The economic theory emphasizes the rational decision making in the education. It said that the consumers or students is able to differentiate the cost of the education with the return of the education. When the return of education is higher than the cost of education, it means that this investment is valuable and desirable. As a rational consumer, the students will choose the education choice which bring them with the higher return [11]. Moreover, students will differentiate the current cost of the education with the future unpredicted salary which is the return of the education to the individual [2]. Hence, the cost of education and the return of education in the economic concept will determine the rational decision among the student in the education. Jackson [11], claimed that the social factors will influence the occupational and educational aspiration among the students. The sociological concept include the external factors and internal factors. External factors include the race, school contexts, student and parent educational aspirations, parental expectations, peer groups, academic achievements and high school curriculums [3]. However, the internal factors including social origins, status, personality traits, interests, talents, professional orientation consultations which influence the individual in making the decision [9].

Chew *et al.*, [5] in their research regarding the factors influencing students' intention to pursue higher education. They used the students' attributes, social influence and financial aid as independent variables and intention to pursue higher education as dependent variable. A research regarding the factors affecting the choice of higher education institutions by potential students in Latvia by Rika *et al.*, [24] is shown that there are 51% of the potential students said that the level of tuition fees is important factor while the availability of the scholarship and discount policies will influence the decision to the higher education institution among 45% of the students. Moreover, Bourke [4] claimed that the recognition of degree overseas, ability of courses and the entry requirement will influence the students' choice to the higher education institutions. In his research of a model of the determinants of international trade in higher education, the result revealed the 70% of the students referred that the recognition of degree overseas will influence them to choose the institutions while the availability of courses accounted as 69% from the students which will influence them to choose the institutions.

Rudhumbu [26], using a sample of 300 respondents from 1240 undergraduate students at Botho University in the year 2016 to determine factors that influenced decisions of undergraduate students' choice of a university to study at Botho University. The results indicated that the 73.5% of the students are influenced by the image and the reputation of the institution while only 26.5% of the students are either slightly or not influenced at all by the image and reputation of the institution. Rughoobur Seetah [26], claimed that the quality of physical infrastructure is one of the important factor which guide the students in making the decision regarding their higher education institutions. His research regard the factors affecting students' choices of tertiary institutions in small island developing economies which in Mauritius by the questionnaire to 20 of the university students in Mauritius. The infrastructure including the cafeteria, library facilities, sports, recreational infrastructure and the quality of lecture rooms. Walsh and Cullinan [29], suggested that there are peer, sibling and parent influences the students for the choice on the high education institutions. Their research is focusing on the factors influencing higher education institution which analysed from a national survey conducted in late 2015 of Leaving Certificate students in Ireland. From the result, students are less likely to be influenced by their friends and siblings but more likely influenced by the parents.

Daguplo [6], illustrated that the interaction among behaviour and cognition, personal factors, and environmental factors will influence students' choice to take higher education. The study used the

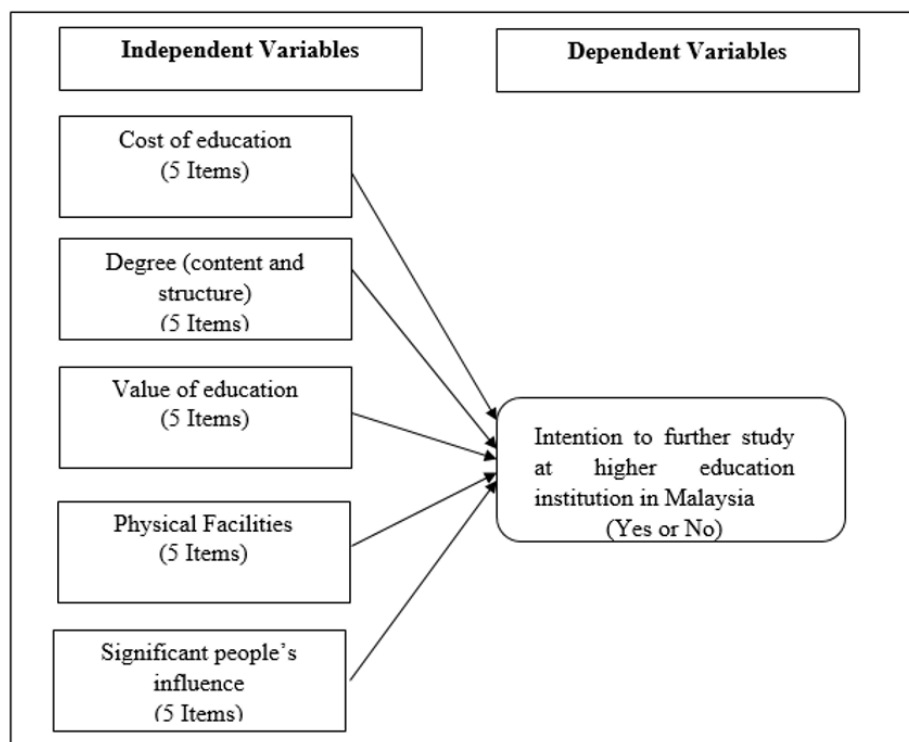
binary regression analysis to predict the likelihood for a student to take higher education. Meanwhile, the result shown that the students whose parents are educated with high income are 1.77 times more likely to pursue higher education than not while the older female students are less likely to pursue higher education. Premarathne, *et. al.*, [22] in their research with the objective which is to analyse the factors influencing the choice of degree-offering institutes among the logistic management students in Sri Lanka. The qualitative and quantitative data are used for their research and a binary logit model is applied. The results portrayed that the institutional discipline and advanced level stream are the leading criteria for logistics management students to select a degree-offering institute. Hossain *et al.*, [10] claimed that the students' satisfaction toward the local higher educational institution is very important because they will pursue their further study abroad if they do not satisfy the local higher educational institution. Hence, their study is to identify the relative importance of factors that influence the students' satisfaction at private and public universities in Bangladesh by utilize the binary logistic regression.

This study tried to fill the gap of the literature by investigating the intention further study at higher education institutions in Malaysia among STPM students. As our knowledge, we identified most of the study focus on the undergraduate student rather than the high-school leavers. Undergraduate students already make their choice but the high-school leavers are making their plan to further study in the university. Hence, STPM students are chosen as the respondents In this study.

## 2. Methodology

### 2.1 Research Framework

The framework is contributed by the intention of further study at higher education institution in Malaysia as the dependent variable while the independent variables are including the cost of education, the degree which includes content and structure, value of education, physical facilities and significant people's influence. The framework is shown at the Figure 2.



**Fig. 2.** Research framework

## **2.2 Research Framework**

The instrument of variables is portrayed in the Table 3. Hence, the questionnaire was built and it is separated into three section which the section A is regarding the respondents demography, section B is regarding the intention to pursue study at higher education institution and section C is regarding the factor which influence intention to pursue study at higher education among STPM students. In section A, there is seven questions are asked about the demography including the gender, form either upper six or lower six, stream including art and science, school, race, religion and family gross monthly income. Meanwhile, the nominal scale is used for section B either have or do no have. This normal scale is used to identify the intention to pursue further study. Besides that, the five point rating likert scale is used in the section C for each of the items. The 1 point stated as very disagree, 2 point stated as disagree, 3 point stated as neutral, 4 point stated as agree and 5 point stated as very agree. This five point rating likert scale is applied for the independent variables, namely cost of education, degree from the content and structure, value of education, physical facilities, and also significant people's influence. Meanwhile, there are five items to measure the cost of education, which including affordable of tuition fee, availability of scholarship, availability of non-financial aid, availability of loan, and the convenient of fee payment. Five items also used to measure the degree, which are standard with required CGPA, various of course choice, the content of syllabus, major and minor courses, and the period of study. For the value of education, well known for the reputation, recognised by the professional bodies, suitable with the employer's needs, recognised by the other countries, and well known with academic value also selected. Meanwhile, there are five items for the physical facilities, which are lecture hall, accommodation, sport facilities, study facilities, and the health facilities. The influence from parent, peer, teacher, sibling, and cousin are chosen to describe the significant people's influence.

**Table 3**

**Instrument of variables**

No.	Dependent Variables	Measurement of Items	Scale used to measure this variable	Type of measurement used
1	Intention to pursue further study		Nominal scale	Have and do not have
No.	Independent Variables	Measurement of Items	Scale used to measure this variable	Type of measurement used
1	Cost of education	<ol style="list-style-type: none"> <li>1. Affordable of tuition fee</li> <li>2. Availability of scholarship</li> <li>3. Availability of non-financial aid</li> <li>4. Availability of loan</li> <li>5. The convenient of fee payment</li> </ol>	Interval scale	Five point rating likert scale
2	Degree (Content and structure)	<ol style="list-style-type: none"> <li>1. Standard with required CGPA</li> <li>2. Various of course choice</li> <li>3. The content of syllabus is provided</li> <li>4. There are major and minor for particular courses</li> <li>5. The reasonable period of study</li> </ol>	Interval scale	Five point rating likert scale
3	Value of education	<ol style="list-style-type: none"> <li>1. Well known for the reputation</li> <li>2. Recognised by the professional bodies</li> <li>3. Suitable with the employer's needs</li> <li>4. Recognised by the other countries</li> <li>5. Well known with the academic value</li> </ol>	Interval scale	Five point rating likert scale
4	Physical facilities	<ol style="list-style-type: none"> <li>1. Lecture hall</li> <li>2. Accommodation</li> <li>3. Sport facilities</li> <li>4. Study facilities</li> <li>5. Health facilities</li> </ol>	Interval scale	Five point rating likert scale
5	Significant people's influence	<ol style="list-style-type: none"> <li>1. Parent's influence</li> <li>2. Peer's influence</li> <li>3. Teacher's influence</li> <li>4. Sibling's influence</li> <li>5. Cousin's influence</li> </ol>	Interval scale	Five point rating likert scale

### 2.3 Data Collection Sampling and Procedure

The questionnaires will be distributed to the respondents who is currently study in STPM either the upper six or lower six in Kulai, Johor. The sampling were collected by using the random sampling. With the aid of the school teacher, the selection of sample is depend on the student's register number. The number will be randomly choose and the questionnaire will be distributed to him or hers. Based on the Table 4, there are three school in Kulai, Johor which offer the STPM programmes



to the student. As the total number of STPM students in Kulai is 737 students, the number of respondents should be 254 respondents [12].

**Table 4**

Number of STPM students in Kulai, Johor, 2023

School name	Number of students
SMK Sultan Ibrahim Kulai	248
SMK Bandar Tenggara	212
SMK Tunku Abdul Rahman Putra	277
Total	737

Hence, the STPM students in Kulai, Johor are selected as respondents because there are programmes of science and the art provided by the school in this area. For example, SMK Sultan Ibrahim offered the science stream and art stream while SMK Bandar Tenggara and the SMK Tunku Abdul Rahman Putra offered the art stream. Hence, the data will be not bias to art stream students only but there are science stream students.

## 2.4 Technique of Data Analysis

The logistic regression model assumes that,

$$\text{Logit}(P(Y = 1|X_1, \dots, X_p)) = \log(P(Y = 1|X_1, \dots, X_p)/1 - P(Y = 1|X_1, \dots, X_p)) = \beta_0 + \beta_1 X_1 + \dots + \beta_p X_p \quad (1)$$

This implies that,

$$\pi = P(Y = 1|X_1, \dots, X_p) = \exp(\beta_0 + \beta_1 X_1 + \dots + \beta_p X_p) / 1 + \exp(\beta_0 + \beta_1 X_1 + \dots + \beta_p X_p) \quad (2)$$

The unknown model parameters  $\beta_0, \beta_1, \dots, \beta_p$  are ordinarily estimated by maximum likelihood.

$$INT = f(COST, DEG, VAL, FAC, PEO) \quad (3)$$

Where,

INT = Intention of pursue further study at higher education institution in Malaysia

COST = Cost of education

DEG = Degree (Content and structure)

VAL = Value of education

FAC = Physical facilities

PEO = Significant people's influence

Thus,

$$INT_i = L_i = [P_i / (1 - P_i)] = \alpha_1 + \beta_2 COST + \beta_3 DEG + \beta_4 VAL + \beta_5 FAC + \beta_6 PEO + m_i, \dots, (4)$$

Meanwhile, the reliability test is conducted through the Cronbach's Alpha coefficient to ensure that the measureable items of each variable were measuring the same underlying construct. Besides that, the Hosmer-Lemeshow test is applied to test the goodness of fit of the model.

### 3. Results

#### 3.1 Demographic

There are 254 respondents which is 107 (42%) male students and 147 (58%) female students. Among these respondents, there are 35 (14%) Malay students, 197 (77%) of students is Chinese, 18 (7%) out of 254 students are Indian while others races is 4 students or 2%. The sample size for the races are reflecting the actual condition among the STPM students in Malaysia, which mostly occupied by the non-Malay students [23].

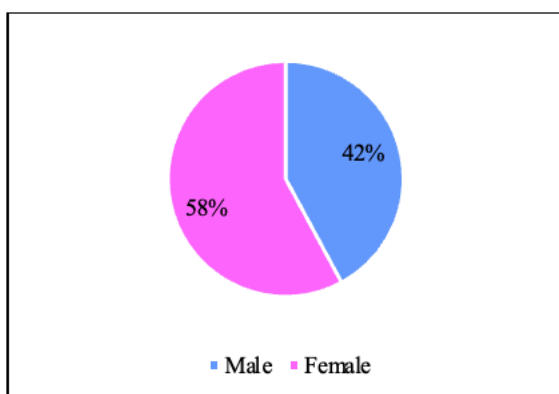


Fig. 3. Gender

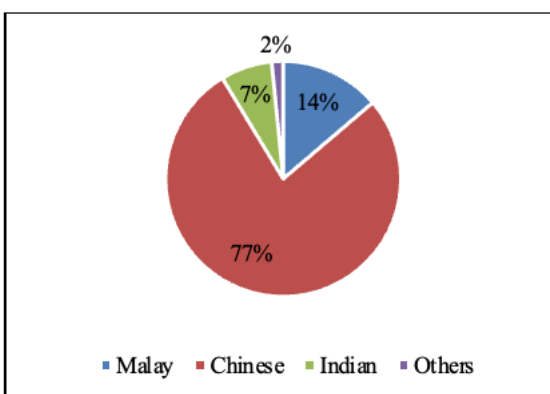


Fig. 4. Races

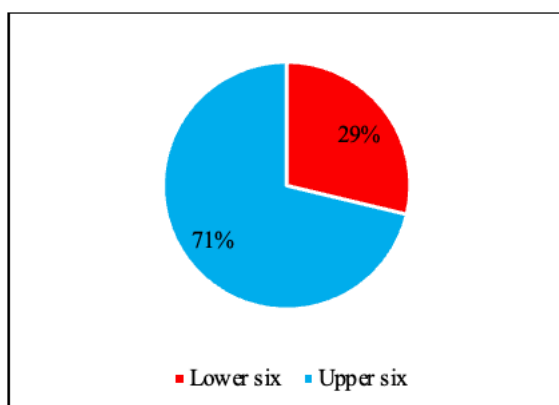


Fig. 5. Form

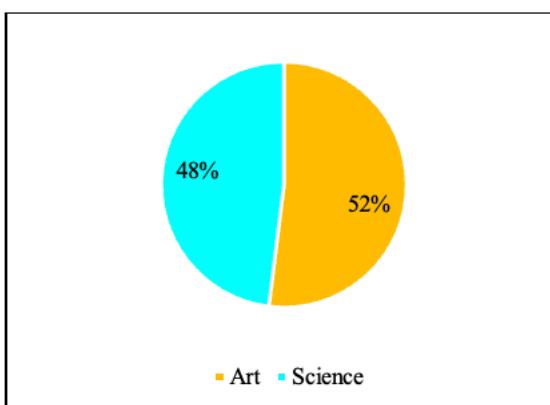
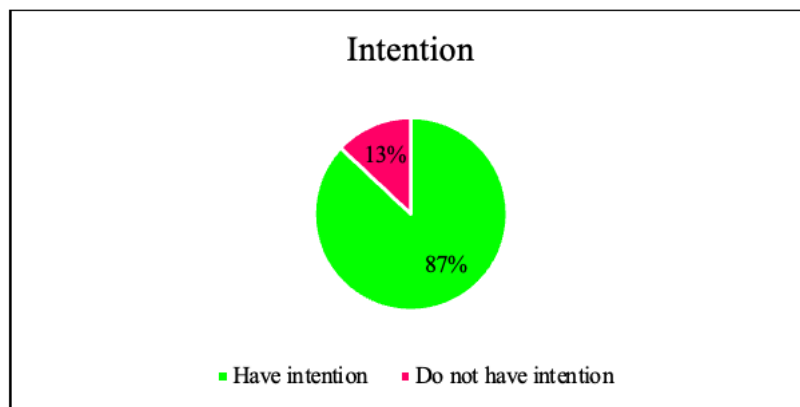


Fig. 6. Stream

Besides that, there are 73 students or 29% come from lower six while 181 students or 71% come from upper six. In the term of stream, they are 52% of respondents come from art stream while others 48% of the respondents come from science stream.



**Fig. 7.** Intention of pursue further study at higher education institution in Malaysia

From Figure 7, there are 221 students or 87% have intention to pursue further study at higher education institution in Malaysia. However, there are 33 students or 17% do not have intention to pursue further study at higher education institution in Malaysia.

### 3.2 Cronbach's Alpha Coefficient

The reliability test is conducted through the Cronbach's Alpha coefficient which the result is revealed as Table 5.

**Table 5**

Cronbach's Alpha coefficient

Variables	Cronbach's Alpha coefficient	Reliability
Cost of education (COST)	0.654	Fair
Degree (Content and structure) (DEG)	0.785	Good
Value of education (VAL)	0.778	Good
Physical facilities (FAC)	0.807	Excellent
Significant people's influence (PEO)	0.828	Excellent

### 3.3 Logistic Regression Result

**Table 6**

Result of Logistic Regression

Variables	DF	Coefficient	Standard Error	P-value <sup>a</sup>	Odd-ratio <sup>b</sup>
Cost of education (COST)	1	-0.457	0.317	0.149	0.633
Degree (Content and structure) (DEG)	1	-0.511	0.294	0.082*	0.600
Value of education (VAL)	1	0.442	0.254	0.083*	1.555
Physical facilities (FAC)	1	0.593	0.278	0.033**	1.809
Significant people's influence (PEO)	1	-0.209	0.321	0.514	0.811

<sup>a</sup>Input variable with (\*\*\*), (\*\*), dan (\*) show the significance level at 1%, 5% and 10%

<sup>b</sup>Odds ratios that are greater than 1 represent that the event is likely to happen.

From the Table 6, the degree include the content and structure and value of education are significant influence the student's intention to further study at higher education institution in Malaysia at 10% confidence interval. Meanwhile, physical facilities is significant influence the student's intention to further study at higher education institution in Malaysia at 5% confidence

interval. However, the impact of value of education and physical facilities have the likelihood to influence the student's intention to further study at higher education institution in Malaysia. The higher education institution with value of education are 1.555 times more likely to enable STPM student pursue their further study at higher education institutions in Malaysia. Meanwhile, the higher education institution with physical facilities are 1.809 times more likely to enable STPM student pursue their further study at higher education institutions in Malaysia. This is because the value of education is the benefit of the student's investment. When the benefit is greater, the student will increase their intention to make the investment. Besides that, the facilities is more concerned by the current STPM students. They need an institution with complete facilities in their period of study. Hence, the sustainable environment can enhance their performance. Apart from that, the facilities for sport and entertainment are important nowadays to ensure that student can release their stress in the study.

**Table 7**

Hosmer-Lemeshow Goodness-of-Fit evaluation for binary specification

	Quantile of Risk		Dep=0		Dep=1		Total Obs	H-L Value
	Low	High	Actual	Expect	Actual	Expect		
1	0.5826	0.7835	5	6.77589	20	18.2241	25	0.63850
2	0.7860	0.8191	5	4.93650	20	20.0635	25	0.00102
3	0.8203	0.8611	6	4.14253	20	21.8575	26	0.99072
4	0.8611	0.8765	2	3.25329	23	21.7467	25	0.55504
5	0.8765	0.8769	5	3.21002	21	22.7900	26	1.13873
6	0.8782	0.8908	4	2.92085	21	22.0791	25	0.45145
7	0.8912	0.9099	2	2.54415	23	22.4558	25	0.12957
8	0.9118	0.9221	2	2.15577	24	23.8442	26	0.01227
9	0.9221	0.9360	0	1.81964	25	23.1804	25	1.96248
10	0.9368	0.9827	2	1.24137	24	24.7586	26	0.48686
Total			33	33.0000	221	221.000	254	6.36663
H-L Statistic			6.3666		Prob. Chi-Sq(8)		0.6062	

Notes: if the p-value smaller than 0.05, the model does not fit the data.

Moreover, the goodness-of-fit test is applied to establish the adequacy and acceptability of the model. The test with the objective to determine whether the predicted probabilities deviate from the observed probabilities in a way that the binomial distribution does not predict. Hence, the goodness of fit tests for model adequacy reveals that the model is fit for the data because the p-value of the H-L statistic is 0.6062 which is larger than 0.05. It is fail to reject the null hypothesis that the distribution is following a binomial distribution.

#### 4. Conclusions

In conclusion, this study with the objective is to study the factors influence the intention of STPM students to further their study at higher education institution in Malaysia. This study applies the binary logistic regression model because the dependent variable utilizes the binary scale which is have intention and do not have intention. The STPM students in Malaysia majority is Chinese students compared to other races because other races have other choices such as Matriculation, Foundation, Diploma or other channels to enter higher education institutions in Malaysia. However, STPM certificate is recognised by other higher education institutions in most of the foreign country. Therefore, STPM students have several choice either continue to study at higher education

institutions in Malaysia includes public and private or study abroad. From the result, most of the students have intention to continue their further study at higher education institutions in Malaysia. The likelihood to have intention is more when it is influenced by the value of education and the physical facilities. Hence, government of Malaysia should ensure that our value of education is always at the higher level and the campus of the higher education institutions are completed with the facilities to reduce the brain drain in Malaysia. Human capital is one of the major determinants to bring our country from the "middle-income" trap. STPM students are the one of the human capital of our country. Therefore, the government need to plan initiative to attract the human capital continue stay at our country and serve for our country.

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