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# FACTORS AFFECTING STUDENTS' CHOICE OF HIGHER EDUCATION INSTITUTION: A MALAYSIAN PERSPECTIVE

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# **ABSTRACT**

#### Article History

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Keywords Marketing mix 7P Student choice of higher Education institution Product Price Place Promotion Process Physical evidence People Student choice Customer decision. Malaysia is currently having an increased competition among higher education institutions. The ambition of this research is to identify the relationship between the marketing mix model (7P) and students' choice of Private Higher Education Institutions (PHEIs) in Malaysia. Primary data have been obtained from students in selected higher education institutions in Malaysia. The target respondents have been selected by using quota sampling method under the non-probability sampling technique. Self-administered questionnaires were distributed to the target respondents from different PHEIs (UniKL, UTAR, TARUC and SEGi University) and 302 useful questionnaires were collected. All questions are measured using a 5-point Likert Scale. The result reveals that the marketing mix (product, place, price, promotion, people, process and physical evidence) has a significant influence on students' choice of PHEI. This research provides a better insight to help PHEIs to understand and develop best services to increase the students' enrolment. This research also demonstrates the importance of the marketing mix (7p) model in higher education institutions' perspective.

**Contribution/Originality:** This study demonstrates the importance of the marketing mix (7p) in higher education institutions' perspective while studying students' choice of higher education institutions.

# **1. INTRODUCTION**

In Malaysia, there is a significant and observable trend for recruiting students from local and international countries in private institutions of higher learning (Sohail *et al.*, 2003). According to the statistics (Sohail *et al.*, 2003) retrieved from the Malaysian Qualification Agency, there are a total of 512 accredited private higher education institutions including branch campuses in Malaysia in 2018. The rating systems used such as SETARA and My QUEST were introduced to measure the overall performance of private universities and universities colleges. Besides, My QUEST also evaluates the HEI based on the quality of students, programs, graduates, resources and governance of PHEI in Malaysia.

The introduction of the accreditation process established a system of quality control has resulted in the application of marketing activities among universities (Rodić-Lukić and Lukić, 2016). To attract students succeed in an extremely competitive environment, private universities implement various types of educational marketing as part of their strategies (Oplatka, 2002). The solution can be a simple marketing framework which enables

universities to plan their activities, investigate what works and reuse them in their most effective circumstances (Kotler and Armstrong, 2008). As the competition to attract student's increases, the importance of efficient and effective marketing approaches needs to be emphasized by the private higher education institutions (PHEIs).

#### 1.1. Problem Statement

In the current scenario, education is a significant factor that contributes to a country's economy and therefore the education industry has expanded tremendously worldwide (Bulley, 2014). This in turn, has resulted in the formation of education services which have become more competitive, especially in developing countries (Bulley, 2014). To accommodate the issue of increasing competition, countless past studies have been conducted to guide higher education institutions on how to attract students and to increase student-enrolment.

Gyamfi *et al.* (2016) conducted a study in Ghana to find out the factors that impact students' choice of university by incorporating the marketing mix (7p) model. The result showed that the students perceived the elements of product, price, and process as most important for them to decide on enrolment. On top of that, there was also a study at the University of Novi Sad, Serbia by Rodić-Lukić and Lukić (2016) that used a modified marketing mix (7p) model but excluded the elements of product and process. In this study, the image of a university was most significant to the respondents while the promotion element was the least important for them. Moreover, Samani *et al.* (2017) incorporated the same marketing mix (7p) model in their study to identify the factors that would affect students' choice of university in 3 the biggest universities in Iran. In this case, promotion, people, and price were the most concerned factors by the students.

In the Malaysian context, there are currently 512 PHEIs according to the Malaysian Qualification Agency (MQA) official website. As such, universities and colleges in Malaysia are facing challenges of increasing competition in the-market due to globalization and liberalization (Teo and Ahmad, 2016). Therefore, PHEIs in Malaysia are forced to enhance their quality of education to increase the enrolment of students (Teo and Ahmad, 2016). Moreover, an article by Grapragasem *et al.* (2014) that discussed the current trends in the Malaysian higher education offerings also addressed the problem of increased competition among the higher education institutions. To support this assertion, Munisamy *et al.* (2014) addressed the same problem faced by the Malaysian higher education institutions. To resolve these challenges, many private higher education institutions in Malaysia encountered the issues of dropping in student intake and improve the weaknesses in marketing strategy planning (Teo and Ahmad, 2016).

However, despite the importance of marketing mix (7p) demonstrated by foreign studies in which marketing mix are tools that can be controlled by the higher institutions to accommodate students' needs (Samani *et al.*, 2017) none of the local studies actually incorporated the marketing mix (7p) model to investigate the issue.

# 2. REVIEW OF RELEVANT THEORETICAL MODEL

The Marketing mix model (7Ps) was introduced by Booms and Bitner (1981) they retained the original (4Ps) model and adding three more elements to the model. The marketing mix model is a combination of factors that can be used by the company to influence customer behaviour. Before the 4Ps were introduced, Borden (1964) defined the marketing mix with 12 elements. The elements include product planning, pricing, branding, channels of distribution, personal selling, advertising, promotions, packaging, display, servicing, physical handling, and fact-finding and analysis. In 1964, the marketing mix model (4Ps) which included factors such as, price, place, product, and promotion, was developed by McCarthy based on Borden's 12 elements (Constantinides, 2006). However, with the growth of service industries over the years, the 4Ps marketing mix model is no longer appropriate in this context. 4Ps Marketing Mix model has been criticized that it is product-oriented and not customer-oriented (Popovic, 2006) the elements of 4Ps are not equally important as product and price are the 2 main elements in the model (Kellerman *et al.*, 1995). Therefore, Booms and Bitner (1982) stated that the 7Ps are essential to "the

definition and promotion of services in the consumers' eyes, both before and during the service experience". 7Ps marketing mix model includes product, price, place, promotion, people, physical evidence and process. 7Ps Marketing Mix model is widely used among service industries because the model suits them well. Besides being used among PHEIs, 7Ps marketing mix model is also being implemented by the fast food industry (Lin, 2011). Hospitals also implement 7Ps marketing mix in their business (Sreenivas *et al.*, 2013). According to Alipour and Darabi (2011) the service marketing mix also affects engineering and technical services corporations.

# **3. REVIEW OF LITERATURE**

#### 3.1. Student Choice

The choice involves decide on the merits of multiple alternatives in a situation and selecting one or more of them. The choice often starts from one's liking for one option over others (Sela *et al.*, 2017). Therefore, the choice is often described as a reflection of one's personal interest, which results in people to conclude their preferences by examining their selection. When people are selecting from alternatives, it involves measuring and weighing information of available options at the time, and then choose the option(s) that shows the most successful indicator (Vohs *et al.*, 2014). According to Kiani *et al.* (2014) people make decisions when they usually have a degree of certainty or confidence, which reflects a graded trust about the probability of different outcomes.

# 3.2. Product and Student Choice

Product can be defined as product or services offered by a firm that might fulfil the customers' need or want in a particular market (Al Muala and Qurneh, 2012). Some prior studies stated that there is a significant relationship between product and students' choice (Shah *et al.*, 2013; Migin *et al.*, 2015; Baliyan, 2016). A higher education institution that offers a quality course or teaching style can attract more students' enrolment. Based on the discussion above, we developed the following hypothesis:

H1: There is a significant relationship between product and students' choice of private higher education institution.

#### 3.3. Price and Student Choice

Price refers to the amount of money required to exchange for products or services (Armstrong *et al.*, 2014). In the case of pure service context, like education services, legal services or medical services, price is a crucial factor for the customers to choose among different competing service providers (Yelkur, 2000). Several studies conducted mention<del>ed</del> that price factor had a significant influence on students' choice (Kusumawati, 2013; Gyamfi *et al.*, 2016; Samani *et al.*, 2017). The price or tuition fee that is perceived as favourable or worth it is more likely to attract more students-enrolment. From the discussion above, we developed the following hypothesis:

H2: There is a significant relationship between price and students' choice of private higher education institution.

## 3.4. Place and Student Choice

Place is the process of making a product or service convenient to obtain for targeted customers (Armstrong and Kotler, 2006). As service cannot be inventoried or stored for future use, customers must go for the service in person or the service provider delivers the service to the customers. Place in this context is defined as the distribution method in the higher private education marketing strategy, The traditional way of conducting lectures in the classroom and modern ways of sharing information through the web, email, video podcasts and others need to be explored and applied by service providers (Ivy, 2008). Numerous studies have proved that there is a significant relationship between place and students' choice (Kusumawati, 2013; Rudhumbu *et al.*, 2017; Samani *et al.*, 2017). It is more probable that customers will choose a near home service provider rather than an organisation that is far away. Based on the discussion above, we developed the following hypothesis:

H3: There is a significant relationship between place and students' choice of private higher education institution.

#### 3.5. Promotion and Student Choice

Promotion is considered as a selling technique that involves communication with customers and aims to succeed in a marketing program (Khan, 2014). Promotion usually includes brand positioning, advertising, sales promotion, publicity and some others (Rafiq and Ahmed, 1995). Services sector such as private higher education services could stress on the publicity and brand positioning. Past studies by Rudhumbu *et al.* (2017); Sabir *et al.* (2013); Garwe (2016) showed that there is a significant relationship between promotion and students' choice. A PHEI that could differentiate its brand could be highly influential to the choice of the students. Based on the discussion above, we developed the following hypothesis:

H4: There is a significant relationship between promotion and students' choice of private higher education institution.

## 3.6. Physical Evidence and Student Choice

Physical Evidence or Physical Facilities, as stated by Al Muala and Qurneh (2012) refers to the environment provided the service provider. In the context of private higher education sectors, the physical evidence includes the furnishing, colour, noise level, layout, lecture facilities and teaching materials (Rafiq and Ahmed, 1995). Several prior studies had revealed the significant relationship between physical evidence and students' choice (Chatfield and Lee, 2012; Shah *et al.*, 2013; Agrey and Lampadan, 2014). When physical evidence is more favourable and preferable, it is more likely to attract more students. This discussion helps us to develop the following hypothesis:

H5: There is a significant relationship between physical evidence and students' choice of private higher education institution.

# 3.7. People and Student's Choice

People refer to the persons who are involved in the production and delivery of the services (Al Muala and Qurneh, 2012). As most of the services are handled by labour, customers' perception of the service quality can be easily influenced by the people (Rafiq and Ahmed, 1995). Past studies by Ramalu *et al.* (2013) showed that people had low influence on students' choice. On the other hand, Fosu and Poku (2014); Baliyan (2016) had proved that there are average and strong relationship between people and students' choice. Friendliness of staff and student recruitment teams are the students' first encounter which impact on students' choice of enrolment. Based on the discussion above, we developed the following hypothesis:

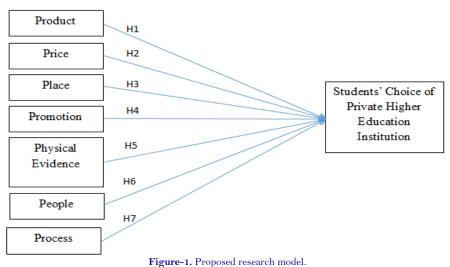
H6: There is a significant relationship between people and students' choice of private higher education institution.

## 3.8. Process and Student Choice

Process can be defined as the action or function taken to enhance the value of a product or service, process is also used to maintain the product quality (Khan, 2014). It involves the routines, task schedules, and supervision when providing services (Magrath, 1986). In the context of higher private education sectors, the processes include all the administrative, policy and the governance of the university. The process starts with the student registration to graduation, learning to examination and others (Ivy, 2008). Numerous past studies expressed that process act as a significant role in students' choice (Gyamfi *et al.*, 2016; Huang, 2016; Aungamuthu and Vigar-Ellis, 2017). The university that implements a good flow of process to achieve higher student satisfaction would enhance the brand name and attract students' enrolment. Based on the discussion above, we developed the following hypothesis: *H7: There is a significant relationship between process and students' choice of private higher education institution*.

#### 3.9. Research Model

The above literature review leads to the following research model as in Figure 1.



\*Adopted from Booms And Bitner's 7ps Marketing Mix model.

#### 3.10. Research Design

The purpose of this study is to determine the effect of the marketing mix (product, price, place, promotion, people, process, physical evidence) on the choice-decision of students in enrolling in private higher education institutions. For the purpose of this study, data was gathered via a survey and primary data collection were used. These two tools of data collection in this study may capture useful opinions and information from respondents that have different characteristics to solve the problem (Salaria, 2012). With that, data was collected by conducting a self-administered survey questionnaire. Furthermore, this research incorporated a cross-sectional approach as one-time collection of data is sufficient to conclude the topic in the study. The advantage of using a cross-sectional approach is that data can be collected at a lesser cost and time (Mann, 2003). The focus of this study is to analyse the Malaysian students elements of choice based on Booms and Bitner's7Ps Marketing Mix model.

## 4. DATA COLLECTION METHOD

Survey questionnaires were adopted to obtain primary data from our target respondents. Students were required to return the questionnaire upon completion. The questionnaires and data were distributed and collected in January 2019. Quantitative data were collected. The questionnaires were distributed to several private higher institutions in Malaysia such as UTAR, TARUC, SEGi University & College and UniKL. These PHEIs were chosen because they have the largest population of student enrolment. The data was measured by using a 5-point Likert scale.

### 4.1. Research Instrument

A pre-test was carried out among UTAR students as UTAR is one of the targeted institutions. We ensured that all of the respondents understood the questions in our questionnaire and answer them as honestly as possible based on their opinion. A total of 30 samples were collected for pilot testing which helped to improve the quality and efficiency of the questionnaire (Hazzi and Maldaon, 2015).

Variables	Cronbach's alpha coefficient		
Product	0.662		
Price	0.748		
Place	0.821		
Promotion	0.727		
Physical evidence	0.724		
People	0.772		
Process	0.846		
Students' choice	0.819		

Table-1. Result of pilot test reliability.

Table 1 illustrates the result of the pilot test in which the Cronbach's alpha values fall between 0.662 to 0.846. According to Sekaran (2003) the value which is below 0.6 is considered as poor and can be interpreted as 0.662 was still considered reliable. For the Cronbach's alpha, more than 0.7 indicates the questionnaire is reliable (Christmann and Van Aelst, 2006).

# 4.2. Sampling Design

Population refers to a broader group of people who share a common characteristic. As the number of our population Malaysian private university is large, it is impossible to acquire opinion from every Malaysian private university students. Sampling refers to "selecting a large number of units from a population, or specific subgroups (strata) of a population". According to the Ministry of Higher Education, the total number of undergraduates of PHEIs in Malaysia is 565,852 in the year 2017. It is vital for the sample to make sure the population accurately being represented (Cohen, 1991). As the population of Malaysia PHEI students is large, sampling was required.

#### 4.3. Target Population

The Malaysian PHEI students are our target population because there are more PHEIs located in Malaysia competing with each other to increase the enrolment rate to their institutions. According to data retrieved from the Malaysian Qualifications Agency (MQA) official website, currently, there are a total of 213 public higher education institutions in Malaysia. As we mentioned in earlier, currently there are 512 PHEIs in Malaysia a figure that is higher compared to public higher education institutions in Malaysia, the competition among them to maintain competitiveness are at an intense level. The universities are more focused on marketing to attract fresh undergraduates from high school to enrol in their institution since the 1990s (Farr, 2003). Besides, there is a wide scale of adoption of marketing strategies in higher education sectors (Drummond, 2004). So, as a result, the students from PHEIs understand and comprehend the factors that influence them to decide to enrol in particular PHEIs. In other words, students have their criteria in selecting their universities and they most probably will enrol in particular universities if the universities meet their criteria. This population will have a more thorough understanding of the factors affecting their choice of PHEIs.

## 4.4. Sampling Frame

The sampling frame used is for the whole population of Malaysia PHEI students. The size of the population remains unknown as the sampling frame will be difficult to establish. Therefore, the non-probability sampling technique was adopted (Choong *et al.*, 2013).

## 4.5. Sampling Techniques

Quota sampling can be defined as the techniques which divides the population into several groups based on the characteristics (Stephanie, 2015). We divided the population based on the total number of undergraduates in a particular PHEI. Four Malaysia PHEIs were selected based on the total number of existing undergraduates. These top 4 largest PHEIs include UniKL (30,000 students), TARUC (27,000 students), UTAR (26,000 students) and

SEGi University (25,000 students). A random sample was taken from the students in UniKL, TARUC, UTAR and SEGi University.

# 4.6. Sampling Size

According to Hinkin (1995) a proper sample size should consist of item to response ratios within an interval of 1:4 - 1:10. As our questionnaire consists of 40 questions, the minimum sample size was 160 and a maximum of 400. Our study targeted 300 sample sizes with the targeted respondent of existing students of the selected PHEIs.

# 4.7. Variables and Measurements

All items in the questionnaire were adapted from the previous studies. Nominal and ratio scales measurements were used to analyse the demographic profile of target respondents. There are a total of 34 questions for all variables, after including demographic questions, there are 40 questions in total. Each item was measured by using the 5-point Likert scale that "1=strongly disagree; 2=disagree; 3=neutral; 4=agree; and 5=strongly agree".

# 5. RESULTS

# 5.1. Demographic Profile of the Respondents

Profile	Categories	Frequency	Percentage
Gender	Female	180	59.6%
	Male	122	40.4%
Age	Below 20 years old	135	44.7%
0	20 to 30 years old	167	55.3%
	31 to 40 years old	0	0%
	Above 40 years old	0	0%
Programme	Foundation/O-Level/STPM	68	22.52%
study	Diploma/A-Level	82	27.15%
	Bachelor's degree	150	49.67%
	Master's degree	2	0.66%
	Doctoral degree	0	0%
	Others	0	0%
Course study	Natural and Physical Sciences	1	0.33%
	Information Technology	70	23.18%
	Engineering and Related Technology	59	19.54%
	Architecture and Buildings	3	0.99%
	Agriculture, Environmental and Related Studies Health	0	0%
	Education	13	4.3%
	Management and Commerce	9	2.98%
	Society and Culture	77	25.5%
	Creative Arts	4	1.32%
	Food, Hospitality and Personal Services	11	3.64%
	Others	11	3.64%
		44	14.57%
Family income	Below RM1000	22	7.28%
level	Between RM1000 and RM3000	141	46.69%
	Between RM3001 and RM4000	60	19.87%
	Above RM4001	79	26.16%
Ethnicity	Malay	61	20.20%
-	Chinese	158	52.32%
	Indian	70	23.18%
	Others	13	4.3%

Table-2. Demographic profile.

The demographic profile of 302 valid respondents is presented in Table 2 shown above. Firstly, there are 59.6% female and 40.4% male respondents. More than half of the respondents were between ages of 20 to 30. From this total, 49.67% of the respondents are pursuing Bachelor Degree, 27.15% are Diploma/A-Level, 22.52% are Foundation/O-Level/STPM, and there are 0.66% of respondents from Master's Degree and lastly 0 % from

Doctoral Degree. In course study category the majority of respondents are from Information Technology, Engineering and Related Technology, Management, and Commerce programmes which constitute of 23.18%, 19.54%, and 25.5% respectively.

# 5.2. Central Tendencies Measurement of Variable

Table-3. Statistics of var	encies measurement.	
Variables	Mean	Standard deviation
Product		
Pp1	4.066	0.816
Pp2	3.897	0.764
Pp3	3.649	0.864
Pp4	4.294	0.774
Pp5	3.447	0.926
Price		
Pr1	4.208	0.866
Pr2	3.801	0.94
Pr3	4.04	0.975
Place		
Pl1	4.168	0.819
Pl2	3.741	1.017
Pl3	-	
	3.98	0.794
Pl4	3.87	0.932
Prontion Pro1	8.000	0.02
Pro1 Pro2	3.268 3.115	0.92
	-	
Pro3	3.109	0.921
Pro4	3	0.998
Pro5	3.125	0.983
Pro6 Physical evidence	3.009	1.188
Pe1	4.005	0.749
	4.225	0.748
Pe2	4.394	0.701
Pe3	3.98	0.854
People		
Peo1	3.728	0.802
Peo2	4.307	0.774
Peo4	4.029	0.848
Peo5	3.953	0.825
Process		
Pc1	3.94	0.812
Pc2	4.016	0.792
Pc3	3.831	0.851
Students' choice		
Sci Sci	3.589	0.753
Sc2	3.519	0.789
Sc3	3.566	0.769
Sc4	3.357	0.849

Moreover, there are also a handful of respondents who are from the 'other' category which constitute 14.57%. Some programmes recorded insignificant numbers namely Agriculture, Environmental and Related Studies and Natural and Physical Sciences. As for family income level, 7.28%, 46.69%, 19.87%, 26.16% of respondents have family income levels of below RM1000, between RM1000 to RM3000, between RM3001 to RM4000, and above

RM4001 respectively. Lastly, more than half of the respondents were Chinese while the remaining were Malay and Indian which consist of around 20% each.

From Table 3 above it can be seen that the mean ranges from to 3.000 to 4.394 for all variable items, the result indicates that the majority of respondents choose "Moderately Important", "Important", "Very Important" on the items. Item 2 of physical evidence have the highest mean which means a majority of respondents think that student facilities are important. The mean value of all items is within the range of 3.000 (Pro4) to 4.394 (Pe2). The majority of the mean is greater than 3.0 which indicate that the majority of the respondents agree with the survey questions. 30 over 32 of components have a standard deviation from 0.701 to 1 while remaining items' standard deviations are more than one. The results show that data are clustered around the mean.

# 5.3. Reliability Test

Variables			
	Number of items	Number of sample size	Cronbach's alpha coefficient
Product	5	302	0.705
Price	3	302	0.761
Place	4	302	0.766
Promotion	6	302	0.840
Physical evidence	3	302	0.782
People	4	302	0.731
Process	3	302	0.807
Students' choice	4	302	0.818

Table-4. Result of reliability test

In the final test as in Table 4, data of 302 sample size were collected and the Cronbach Alphas for all items is above 0.7 which indicates the questionnaires are reliable. However, 2 items (pp3 and pp6) from the variable people were deleted to increase the reliability to 0.731. As all variables had obtained the score of  $\geq$ 0.70, they are considered to be reliable (Nunnaly, 1978).

## 5.4. Normality Test

Table-5. Result of normality test.					
Variables					
Product	Items	Skewness	Kurtosis		
	Pp1	-0.564	-0.063		
	Pp2	-0.273	-0.081		
	Pp3	-0.343	-0.051		
	Pp4	-0.995	0.896		
	Pp5	-0.347	-0.051		
Price					
	Pr1	-0.972	0.588		
	Pr2	-0.438	-0.237		
	Pr3	-0.835	0.090		
Place					
	Pl1	-0.794	0.302		
	Pl2	-0.625	0.045		
	Pl3	-0.405	-0.128		
	Pl4	0.580	0.083		
Promotion					
	Pro1	-0.249	-0.147		
	Pro2	-0.213	-0.447		
	Pro3	-0.295	0.109		
	Pro4	-0.181	-0.409		
	Pro5	-0.191	-0.091		

		,	
	Pro6	-0.055	-0.775
Physical evidence			
	Pe1	-0.680	0.000
	Pe2	-0.954	0.512
	Pe3	-0.636	0.209
People			
	Peo1	-0.363	0.174
	Peo2	-0.940	0.371
	Peo3	-0.215	-0.481
	Peo4	-0.680	0.281
	Peo5	-0.411	-0.245
	Peo6	-0.150	-0.518
Process			
	Pc1	-0.301	-0.576
	Pc2	-0.513	0.082
	Pc3	-0.383	-0.110
Students' choice			
	Sc1	0.096	0.201
	Sc2	-0.188	0.228
	Sc3	-0.003	0.087
	Sc4	-0.103	0.189

As Table 5 shown, the skewness and kurtosis of all the items were within the range of  $\pm 3$  and  $\pm 10$  respectively. Based on Jo (2009) fulfil the condition above shows that the data are normally distributed. The skewness ranged between -0.995 and 0.58 while kurtosis ranged between -0.775 and 0.896.

## 5.5. Pearson Correlation Analysis

Variables	PP	PR	PL	PRO	PE	PEO	PC	SC
PP	1.000							
PR	0.404	1.000						
	<.0001							
PL	0.394	0.376	1.000					
	<.0001	<.0001						
PRO	0.309	0.251	0.364	1.000				
	<.0001	<.0001	<.0001					
PE	0.471	0.438	0.414	0.336	1.000			
	<.0001	<.0001	<.0001	<.0001				
PEO	0.372	0.420	0.542	0.559	0.528	1.000		
	<.0001	<.0001	<.0001	<.0001	<.0001			
PC	0.387	0.480	0.446	0.344	0.519	0.557	1.000	
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001		
SC	0.268	0.115	0.242	0.364	0.158	0.332	0.210	1.000
	<.0001	0.045	<.0001	<.0001	0.005	<.0001	0.0002	

Table-6. Pearson correlation analysis.

From Table 6 above it can be seen that multicollinearity does not exist if the correlation coefficient is 0.90 and below (Hair *et al.*, 2010). According to the result, the multicollinearity problem does not exist as all independent variables' correlation coefficient is less than 0.9. On top of that, all IVs have a significant relationship to DV once the p-value is under 0.05. All IVs provide a weak positive relationship to the DV range from (0.115 to 0.364).

Table-7. MLR analysis.						
Variable	Parameter estimate	Pr >  t	Tolerance	Variance inflation		
Intercept	1.771	<.0001		0		
Product	0.200	0.005	0.687	1.454		
Price	-0.066	0.211	0.675	1.479		
Place	0.044	0.466	0.636	1.570		
Promotion	0.201	0.000	0.672	1.487		
Physical evidence	-0.098	0.152	0.577	1.731		
People	0.194	0.026	0.447	2.232		
Process	0.030	0.631	0.565	1.769		
R square $(R^2)$		0.185				
Adjusted R square	0.166					
F value	9.85					
Significant F	Significant F <.0001					

#### 5.6. Multiple Linear Regression (MLR) Analysis

Based on Table 7, the outcome shows R Square is 0.185 indicates 18.5% of all 7 IVs can justify the variation in the DV. The balance of 81.5% can be explained by the items that are not being used in this research. Moreover, F-value is 9.85 while P-values of all IVs are less than 0.05, this means model fitness is explained. The DV can be justified by IVs.

On top of that, multicollinearity exists when variation inflation equal to 10 and above while the tolerance value is 0.10 or below. According to the table above, the result shows multicollinearity does not occur (Hair *et al.*, 2010). The equation of MLR analysis is as follow:

Students' Choice = 1.771 + 0.200(Product) - 0.066(Price) + 0.044(Place) + 0.201(Promotion) - 0.098(Physical Evidence) + 0.194(People) + 0.030(Process).

# 6. DISCUSSION OF MAJOR FINDINGS

# 6.1. Product

Consistent with previous research from Shah *et al.* (2013) and with Migin *et al.* (2015) that concluded product is a significant factor that would influence students' choice on PHEI. In Migin *et al.* (2015) research, they stated that programme is a factor that students consider because it is important to have programmes that are recognized by future employers. Besides, the design of the courses such as the duration is essential in student choices because the more flexible the courses in term of time, the more appealing the university is Shah *et al.* (2013).

## 6.2. Price

Price factor is not significant towards the choice decision of PHEI. The result contradicts with the past studies of Gyamfi *et al.* (2016); Kusumawati (2013) and Samani *et al.* (2017) which all recognized that price has a significant relationship with the choice decision of PHEI. Students are focusing more on standards, quality and value for money for their PHEI rather than focusing on the price alone (Shah and Chenicheri, 2011).

#### 6.3. Place

The students' choice of PHEI is a disregard for the place. The result from our study is opposed to the previous studies done by Rudhumbu *et al.* (2017); Kusumawati (2013) and Samani *et al.* (2017) which all concluded that there is a significant relationship between place and students' choice on PHEI. Students do not prioritize the location of the institution as long as they are offered the programmes that meet their needs according to Migin *et al.* (2015). They place their priority on the features and attributes of the courses instead of the availability of the accommodation or the infrastructure nearby.

#### 6.4. Promotion

Promotion is an effective tool that affects students' choice on PHEI because the major source of information obtained about those institutions is from promotional materials such as websites, radio, television advertisements and others (Garwe, 2016). Promotional activities such as counselling sessions during open days or university staff visiting high school to provide information about the institution. Through these mediums, the institution established a strong case about themselves towards their targeted prospective students.

#### 6.5. Physical Evidence

The relationship between physical evidence and students' choice of PHEI is not significant. It is contradicting with the research conducted by Chatfield and Lee (2012); Agrey and Lampadan (2014) and Shah *et al.* (2013). The reason for this is that students nowadays do not require the best and most updated teaching and learning equipment and facilities as long as the institution provides sufficient equipment and facilities for the students in their studies. According to Samani *et al.* (2017) physical facilities acquired the lowest mean score among the other 6 marketing mix strategies.

## 6.6. People

People have a significant relationship with students' choice of PHEI. It contradicted preceding research by Ramalu *et al.* (2013) and Fosu and Poku (2014) that concluded that people have a low effect on students' decision regarding the choice of PHEI. However, our result is consistent with Baliyan (2016) that concluded people have an average to a high significant relationship between people and students' choice of PHEI. Experienced teaching staff and warmth, helpfulness and efficiency of administration staff are important to help students fit into the environment as soon as possible. They both indicate the quality of education and thus affect the reputation as well (Aungamuthu and Vigar-Ellis, 2017).

## 6.7. Process

Process did not have a significant relationship on students' choice of PHEI. It is contradicting with Aungamuthu and Vigar-Ellis (2017) and Gyamfi *et al.* (2016). Reason for this result which shows insignificant process to students' choice is because students feel that services provided by private higher education institution are almost the same between one and another. Process could only affect students' choice of private higher institution with the cooperation of people and physical evidence strategy (Enache, 2011).

## 6.8. Practical Implication

This paper could help Malaysia PHEI to allocate their resources effectively to cope with the increasing competition in the industry. The result showed that Promotion is the most significant variable that affects the students' choice of PHEI. Hence, PHEIs should promote their brands to stand out from other institutions by focusing on their advertising method as it can make a huge difference in attracting students' enrolment.

Besides, Product is another significant factor from the result of our research. PHEIs should enhance their teaching quality to maximise their competitiveness, and they should always keep courses offered up-to-date and provide the latest and useful knowledge.

The last significant factor is People. Hence, PHEIs should recruit more experienced and helpful staff to attract students. Besides, they also should enhance personal contact with students by creating a friendly environment that can attract more students to enrol into the higher institution.

Last but not least, from the result, Price, Place, Physical evidence and Process are not significant to the students' choice of PHEI. However, we suggest PHEIs do further investigations on these variables to ensure that there are no errors that might occur in our research.

## 6.9. Theoretical Implication

We used the marketing mix (7p) model that in our research to investigate the relationship between the marketing mix (7p) and students' choice of PHEI in Malaysia. Besides, our research further investigates the significance of the 7p as a controllable tool to control the purchasing intention of customers.

By referring to our research, future researchers can easily get the results and eliminate all the unnecessary procedures to save time when doing their researches. According to our research, we found out that only promotion, product, and people have a significant impact on Malaysia students' choice of PHEI, the rest of the variables (price, place, physical evidence and process) show insignificant influence.

#### 6.10. Limitation of Study

First, the language barrier existed during our questionnaire distribution process which may cause the results of the research less reliable. As our questionnaire only uses a single language which is English, some respondents faced difficulties in understanding the questions.

Second, the sample size (300) that we have collected may be too small as there is a large PHEI student population (565,852) in Malaysia. The sample we collected may not represent the interest and opinion of the PHEI student population.

Moreover, the time constraint is one of the limitations that we encountered. There are approximately 10 months for us to carry out our research. Besides, we also encountered cost constraints during our research because we need to bear the cost of travelling and the cost of printing.

# 7. FUTURE RESEARCH RECOMMENDATION

Firstly, since Malaysia consists of multicultural society the questionnaire distributed should be bilingual or multilingual to help the respondents have a more thorough understanding of the questions asked and reduce the inappropriate response from the target respondents. Other than that, the interviewing method is suggested as it would help the researcher to seek information more detail from respondents (Alshenqeeti, 2014). It would also avoid the language barrier if the interview is conducted by translating the questionnaire into respondents' native language and record the response based on their answer.

Secondly, future related researches are suggested to select a larger sample size to obtain more accurate results which represent the interest and opinion of the entire PHEI student population in Malaysia. Future researches are also encouraged to collect data from several PHEI as students from various PHEIs may have a different opinion.

# 8. CONCLUSION

From the result generated, we found that 3 out of 7 IVs (Product, Promotion and People) significantly affect the DV (students' choice of private higher education institution), while the remaining 4 IVs (Price, Place, Physical Evidence and Process) do no influence the DV significantly. In conclusion, the research objective which is studying the relationships between marketing mix strategy and students' enrolment in private higher education institution have all been achieved in this research.

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