

International Journal of Scientific Research in Education (IJSRE)

ISSN: 1117-3259

Determining Mediating Effect of Information Satisfaction on International Students' College Choice: Empirical Evidence in Malaysia's University

Ismail Nurlida¹
Taylor's Business School, Taylor's University College Malaysia

Hassan Faridahⁱⁱ Institute of Business Excellence, Faculty of Business Management Building, Universiti Teknologi MARA Malaysia

> Mohamad Sheriff Noorainiⁱⁱⁱ Graduate Business School, Universiti Teknologi MARA, Malaysia

Mohd Daud Norzaidi^{v1}
Faculty of Business Management/Institute of Business Excellence/Accounting Research Institute
Universiti Teknologi MARA
Malaysia

Abstract

This study aims to shed light on college choice satisfaction by examining the role information satisfaction may play when evaluating the relationship of college attributes with choice satisfaction. Previous research has successfully demonstrated the direct relationship between college attributes, information satisfaction and choice satisfaction; however, study on the possibility of variables having a mediating role on choice satisfaction has yet to be investigated. This study attempts to address this knowledge gap and seeks to serve a provocative role in explaining international students' college choice satisfaction. This study was conducted on 149 international students from a private university in Malaysia. Results suggested that college attributes and information satisfaction were essential predictors of students' choice satisfaction. However, more importantly the findings also highlighted that information satisfaction has a partial mediating effect in enhancing the relationship between college attributes and students' choice satisfaction. Hence this significant finding implied that the challenges of educational institutions are not only to focus on the vital attributes that are influencing students' college choice but also strategies on how information regarding the attributes should be disseminated appropriately. This is logical since students' satisfaction with their college choice is dependent on their satisfaction of the information they have acquired with regards to the college attributes.

Keywords: Information satisfaction, mediator variable, college choice, international students, Malaysia

Nurlida, I., Faridah, H, Nooraini, M.S., & Norzaidi, M.D. (2010). Determining mediating effect of information satisfaction on international students' college choice: Empirical evidence in Malaysia's university, *International Journal of Scientific Research in Education*, 3(1), 51-63. Retrieved [DATE] from http://www.ijsre.com.

¹ Corresponding author

INTRODUCTION

The prospect of intense competition in college enrollments has generated tremendous pressure on college administrators and educators to find effective approaches to attract students (Ivy, 2001; Soutar & Turner, 2002). Therefore, understanding students' satisfaction is necessary because it reveals the voice of the customers. The notion of customer satisfaction takes up a vital position in marketing practices and it continues to attract the attention of researchers and marketers. In understanding customers' satisfaction, researchers have long acknowledged and recognized the importance of attributes in influencing customers' choice satisfaction (Churchill & Suprenant, 1982; Halstead, Hartman & Schimdt, 1994; Oliver, 1993; Oliver, 1997; Athiyaman, 1997; Kozak, 2003)

In the case of educational institutions, identifying and measuring satisfaction can tell us which aspects of the college attributes will have the greatest impact on the outcome called student choice behavior and eventually will lead to student retention. Previous findings indicate that college attributes such as tuition fees, availability of programs, academic recognition, quality of academics, quality of facilities and campus atmosphere among others are essential predictors of students' college choice (Chapman, 1981; Wajeeh & Micceri, 1997; Joseph & Joseph, 2000; Mazzarol & Soutar, 2002; Burns, 2006; Ismail, 2008). Also, students mainly collect information on respective colleges prior to making a choice. These colleges will employ a wide range of communication devices such as promotional materials in their effort to inform and influence potential students. It is therefore natural that before a student chooses a college, he or she must foremost be satisfied with the information obtained regarding the college. Information satisfaction is therefore essential specifically in the early stage of the student's decision making process since it is an imperative in the assessment of a college to be chosen.

Moreover, the current study contemplates on information satisfaction since there have been no attempt made to relate all possible factors of college choice in one single setting. To fill the gaps, this study aims to shed more light on college choice satisfaction by examining the role information satisfaction may play when evaluating the relationship of college attributes with choice satisfaction. Specifically, this study attempts to answer the following research questions:

- Do college attributes positively influence college choice satisfaction?
- Do college attributes positively influence information satisfaction?
- Does information satisfaction influence college choice satisfaction?
- Does information satisfaction mediate the relationship between college attributes and college choice satisfaction?

Since education environment is becoming more competitive globally findings from this study will definitely provide significant input on how Malaysian educational institutions can successfully attract more international students to pursue their education in Malaysia. In addition results of this study serve as a guide to other industries with reference to information satisfaction having a mediating role on choice satisfaction.

LITERATURE REVIEW

Importance of Choice Satisfaction

Customer satisfaction is referred to as the customer's state of being sufficiently contented in a purchase situation for the sacrifice the customer has made (Loudon & Bitta, 1993). Previous researchers have indicated that satisfaction is highly linked to customer retention and loyalty (Hallowell, 1996; Athiyaman, 1997; Helgesen & Nesset, 2007). In addition, it has also been pointed out that the ability to build up loyalty in customers and hence retention is perceived as a key feature in sustaining and improving market share and enhancing the value of the organization (Rust & Zahorik, 1993; Beerli, Martin & Quitana, 2004). Winning new customers is good but it is cheaper to hold on to existing customers. As indicated in earlier studies, loyalty reduces the need to incur customer acquisition costs (Reichheld, 1996) and the cost of acquiring customers may be five times more costly than that of retaining them (Peters in Rust & Zahorik, 1993). Therefore, making certain that customers stay loyal and satisfied with its service is of importance to an educational institution. More than ever in the current situation, where competition is intensive, it is

important that educational institutions search for resourceful cost effective ways to persuade and retain their customers. As businesses become more aggressive and as many services become commodities, customer satisfaction is even more rigid than ever to uphold. Hence, for an educational institution to be successful in the long run, it must satisfy customers, at the same time making a profit. Indeed, it can be argued that satisfying students should be the prime obligation of a college and virtually all its activities, programs and policies should be evaluated in terms of their contribution towards satisfying students. Hence, students' satisfaction is so critical for educational institutions that any educational institution interested in the delivery of superior service must start with a comprehensible understanding of its customers, not forgetting the impact it will generate as satisfied customers over time will come back and bring more friends.

Hypothesis 1: College attributes has a positive significant influence on college choice satisfaction

College Attributes

One of the major predicaments faced by service customers is the uncertainty about the consequences of the choice decision that they cannot anticipate (Iglesias & Guillen, 2002). Due to service distinctive characteristics namely, intangibility, inseparability, heterogeneity and perishability (Parasuraman, Zeithaml & Berry, 1985) customers usually associate service with high level of risk (Guiltinan, 1987; Murray & Schlacter, 1990; Murray, 1991; Iacobucci, 1992). More so for education as the whole process will definitely take years to complete even after the decision has been made (undergraduate study will take up to three years minimum) and as such the process of student's assessment of a service is to a certain degree dependent on credible information regarding the attributes of an institution. Halstead, Hartman and Schimdt (1994) supported that educational institution represents an unfamiliar first time experience for students, therefore, students' evaluation of their expectations and performance are attributes or characteristics based. In education, students may not be able to sense the college's intrinsic quality immediately and hence for students the utilization of college attributes (acting as physical cues to enhance the tangibility of college) in appraising choice satisfaction is critical. Previous studies have indicated that college attributes do have strong impact on students' satisfaction in their choice of college (Oliver, 1997; Athiyaman, 1997). These attributes among others include lecturers' quality, availability of desired programs, international recognition, quality of college facilities (library services, computing facilities and recreational facilities), class size and subject difficulty and availability of financial support (Chapman, 1981; Wajeeh & Micceri, 1997; Joseph & Joseph, 2000; Mazzarol & Soutar, 2002; Burns, 2006; Ismail, 2008).

Hypothesis 2: College attributes has a positive significant influence on information satisfaction

Satisfaction with College Information

The important issue of concern for a service provider is to understand customer evaluation process of service. In addition to post purchase satisfaction, it is also relevant to recognize that satisfaction with information may also occur before a choice is made. During the initial stage of the decision making process, the customer will evaluate potential service through information acquired hence, the expectations that a customer has pertaining to a service will be highly dependent upon information collected from a selection of sources. In the process of choosing a college, it is essential that students are able to acquire all information needed from different sources as they could make a better judgment and be satisfied with their choice of college. It is quite logical that before a student can be satisfied with the choice, he must foremost be satisfied with the information obtained regarding the college. Hence information satisfaction is essential since it is an imperative in the assessment of college performance.

As elaborated by Spreng, Mackenzie and Olshavsky (1996) and Bruce (1998), the feeling of satisfaction is not only reliant on the performance of the service alone but the feeling of satisfaction will also be contingent on the information that an individual has acquired prior to choice decision and on which his expectations are based. Satisfaction with the information is defined by Ismail (2008) as an individual agreement and contentment of the information used in choosing a service.

Information gathered regarding respective colleges will be the basis of students' primary evaluation in their pursuit of selecting a college to study. Generally students will search and evaluate information from up to five colleges in their process of deciding their choice of college (Ismail & Leow, 2008). In their study it was also suggested that in students search process, market dominated sources of information (for examples college printed materials and college

websites) were more widely used compared to personal sources of information (for examples family members and friends). It is thus very necessary for educational institutions to ensure that students are satisfied with the information they acquire during this initial stage of decision making process as this feeling of satisfaction could lead to a choice behavior.

As mentioned earlier, services such as those provided by educational institutions are perceived as risk associated due to their intangible offerings, therefore, students would most probably use information cues to assess and confirm their choice satisfaction. For the purpose of this study, information satisfaction is characterized as students' satisfaction with the information they have acquired regarding the attributes of the college that they are currently enrolled in. The term attributes is described as the various characteristics or features of the college.

Hypothesis 3: Information satisfaction has a positive significant influence on college choice satisfaction

Hypothesis 4: Information satisfaction has a partial mediating effect between college attributes and college choice satisfaction

The theoretical framework of the current study is shown as follows; (see Figure 1)

Figure 1: Framework of college choice satisfaction **Information Satisfaction** H 2 H 3 H 4 **College Attributes** Issues of the education institution : Items include - reputation, quality, academics, etc. Academic programs College Choice : Items include - variety, flexibility, mode of delivery, etc. Satisfaction H 1 Professional skills & development : Items include - soft skills, internship, industry linkages Cost & financing : Items include - tuition fees, financial aids, cost of living, etc. Items include - security, library, hostels, transportation, etc.

The basic concept of the above framework was based on studies by Spreng, Mackenzie and Olshavsky (1996) and Bruce (1998), where results revealed that information satisfaction and attributes have a significant effect on choice satisfaction. This study however attempts to make a contribution by examining the mediating effect that information satisfaction might has on the relationship between attributes and choice satisfaction in the context of educational institutions.

METHODOLOGY

Sampling Procedure

The sample frame comprised of undergraduate international students, these being defined as non – Malaysian citizens. International students should be identified as a niche market as these students have a different disposition of college choice. For these students their college choice decision making process definitely requires extra effort and is riskier as compared to local students. As such a study on international students' college choice is much warranted for. Moreover,

competition for international students' enrolment among higher educational institutions has necessitated the need to understand these students' college choice satisfaction. Satisfied students will become walking advertisements as they will inform others of their positive experience. In addition, the enrolment of international students will not only result in significant economic returns but will contribute positively to the globalization of Malaysian education. This is in line with the Government's objective of making Malaysia as the "Education Hub".

Respondents were first year international students pursuing their degree program in the field of business of a private higher educational institution in Malaysia. They were selected randomly from a student listing provided by the institution. In order to improve the response rate, survey was conducted during lecture and permission was obtained from the lecturer. 149 out of 201 students participated showing a response rate of 74 percent.

Survey Questionnaire Development

The measurements for satisfaction were based on the general feelings about respondent's college choice decision and information obtained. Respondents were asked to give an indication of satisfaction levels in connection with information sought and their choice of college employing a five-point Likert rating scale from "strongly agree" to "strongly disagree" with "somewhat agree" as the midpoint. Oliver's (1980 and 1997) scale of satisfaction was adapted in this study for both college choice satisfaction and information satisfaction. Adjustments and modification to Oliver's scale had to be made to suit the purpose of this study. Several different constructs of college attributes from previous researchers have been identified and employed (Chapman, 1981; Halstead, Hartman & Schimdt, 1994; Poock & Love, 2001; Cubillo, Sanchez & Cervino, 2006). In addition, students were also questioned on the number of colleges they searched for before deciding on their college choice so that the frequency of number of colleges searched by the respondents can be analyzed.

To begin with data reduction process a simultaneous run was conducted on both the dependent and independent variables to demonstrate the inter-construct convergence and discriminant within the three constructs, namely college choice satisfaction, information satisfaction and college attributes. Principle Component Analysis (PCA) was employed as the extraction method for validity testing to show convergence and discriminant of all variables within the constructs. PCA with varimax rotation was carried out on 42 variables; suppressed at 0.50 and as a result 16 variables survived. For college choice satisfaction six out of ten variables were maintained. Eight items were retained for college attributes and only 2 items continue to exist for information satisfaction.

Data Collection and Preparation

SPSS (version 16) was used to analyze data from the survey. Based on Cronbach's alpha (for reliability), all items were maintained for the three constructs, namely: college choice satisfaction (0.88), college attributes (0.92) and information satisfaction (0.71) as this is consistent with Nunally's (1967) suggested reliability estimates of 0.70 (minimum) as the cut-off value. In addition, the Kaiser-Meyer-Olkin (KMO) was used to measure the adequacy of the sampling and a cut-off result greater than 0.5 (threshold) was used for a satisfactory factor analysis to proceed (Hisham & Norzaidi, 2009). And finally Barlett's Test of Sphericity was used to establish its significance that is, its associated probability should be less than 0.05.

Establishment of Mediation

Utilizing Baron and Kenny's (1986) and Judd and Kenny's (1981) steps, the following regression equations were observed in establishing mediation:

Step 1: Regressing the dependent variable (DV) on the independent variable (IV) and the IV must be shown to affect the DV

(Equation 1: $CS = b_{01} + b_{11} Att$)

Step 2: Regressing the mediator (M) on the IV and result must show that IV is correlated with the M.

(Equation 2: IS = $b_{02} + b_{12}$ Att)

Step 3: Regressing the DV on the M and again the relationship must be significant.

(Equation 3: $CS = b_{03} + b_{13}IS$)

Step 4: Regressing the DV on both the IV and M.

(Equation 4: $CS = b_{04} + b_{14}IS + b_{24}Att$)

Where: CS = College Choice Satisfaction, IS = Information Satisfaction and Att = College Attributes

Full mediation holds if the IV no longer affects the DV after M has been controlled and so the relationship between IV and DV is zero. Partial mediation occurs when relationship between IV and DV is reduced in absolute size but still different from zero when M is controlled.

RESULTS

Respondents' Profile

Analysis of basic demographic information reveals that the sample size is representative of the student population in terms of gender with approximately 42 percent males and country-of-origin with reasonable diversity of international students from 17 different countries. In addition, it was discovered that approximately 72 percent of the students searched for information of three to five colleges prior to choosing a college.

Table 1: Descriptive statistics of respondents' profile

	Frequency	Percentage
Gender:		
Male Female	63	42%
Female	86	58%

Measurement evaluation

The result for the KMO test for the variables is 0.793 which indicates that the sample data is good and therefore fit for factor analysis. The Barlett's Test of Sphericity result reveals that this test is significant (p = 0.000). A final run on remaining variables was conducted to evaluate internal consistency. The final value of Cronbach's alpha for college choice satisfaction is 0.90, college attributes alpha value is 0.85 and value for information satisfaction is 0.60.

Table 2: Convergence and discriminants of variables measuring college choice satisfaction, college attributes and information satisfaction

	Component				
	College Choice Satisfaction	College Attributes	Information Satisfaction		
collsa 5: Comfortable with choice	.851				
collsa 4: Satisfied with choice	.827				
collsa 3: Selection was accurate	.814				
collsa 6: Choice was a wise one	.798				
collsa 7: Contented with preference	.782				
collsa 1: Made right decision	.709				
attributes 20: Soft skill development		.824			
attributes 14: Appropriate exemption		.761			
attributes 13: Affordable tuition fees		.750			
attributes 21: Internship opportunities		.680			
attributes 16: Reasonable cost of living in studying abroad		.643			
attributes 23: Financial aids		.624			
attributes 8: Campus atmosphere		.610			
attributes 19: Transferability to wider selections		.596			

infosa 5: College websites informa	.807			
infosa 4: Made better decision on	.690			
Eigenvalue		4.11	3.90	1.76
% of explained variance		25.70%	24.40%	11.00%
Cumulative explained variance		25.70%	50.10%	61.10%
Cronbach's Alpha		0.90	0.85	0.60
Kaiser-Meyer-Olkin Measure of S	ampling Adequacy			0.793
Bartlett's Test of Sphericity	Approx Chi-Square			1166.205
	df			120
	Sig.			.000

Mediation Establishment

Results indicated that information satisfaction plays a significant role in mediating the relationship between college attributes and international students' satisfaction on their choice of college. Based on Baron and Kenny's (1986) and Judd and Kenny's (1981) steps, the following results were established:

Step 1: College attributes has a positive significant influence on college choice satisfaction

Table 3: Relationship between college attributes and college choice satisfaction

		Unstandardized Coefficients		t	Sig.	
	В	Std. Error	Beta			
(Constant)	17.781	1.543		11.527	.000	
College Attributes	.150	.056	.218	2.695	(.008)	

The result above reveals that college choice satisfaction is found to be notably influenced by college attributes (t = 2.695; p = 0.008; b = 0.150). This indicates that college attributes do play an important role in international students 'college choice. The result reported in this study is consistent with previous research findings. Corresponding to this result, in the case of higher educational institution, Athiyaman (1997) observed that college attributes such as quality of faculty members and college facilities are consequences of students' satisfaction.

Step 2: College attributes has a positive significant influence on information satisfaction

Table 4: Relationship between college attributes and information satisfaction

	Unstand	ardized	Standardized	t	Sig.
	Coeffici	ents	Coefficients		
	В	Std. Error	Beta		
(Constant)	5.599	.576		9.716	<u>.000</u>
College Attributes	.048	.021	.189	2.320	.022

It was hypothesized that college attributes has a positive correlation with information satisfaction. Result of this study is in tandem with the hypothesis where t = 2.320; p = 0.022; b = 0.048. Oliver (1997) suggested that one way of evaluating one's information satisfaction level is to evaluate a product on the basis of its attributes. In this situation, since education is a service, hence intangible, students will search for tangible cues (college attributes) in making their college choice. It can be concluded that satisfaction judgment in this situation is resulting from the evaluation between information gathered and students' observations of attribute performance. The more the attributes meet the expectation of these students based on information gathered, the higher will be their level of satisfaction towards the information sought.

Step 3: Information satisfaction has a positive significant influence on college choice satisfaction

Table 5: Relationship between information satisfaction and college choice satisfaction

		Unstandardized Coefficients	Standardized Coefficients t		Sig.
	В	Std. Error	Beta		_
(Constant)	15.536	1.478		10.515	.000
Information satisfaction	.912	.210	.337	4.338	.000

It was postulated that information satisfaction is a positive function of college choice satisfaction. The result of this study supported this hypothesis. Information satisfaction is found to exert a significant positive influence on college choice satisfaction (t = 4.338; p = 0.000; b = 0.912. The result has reinforced the findings of Spreng, Mackenzie and Olshavsky (1996) and Bruce (1998) which suggested that information satisfaction is an important variable in the evaluation of the performance of product used or service employed.

Step 4: Information satisfaction has a partial mediating effect between college attributes and college choice satisfaction

Table 6: The effect of information satisfaction between college attributes and college choice satisfaction

	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	В	Std. Error	Beta		
(Constant)	13.212	1.892		6.984	000
College attributes	.111	.054	(.161)	2.043	.043
Information satisfaction	.816	.212	.303	3.854	.000
	Sum of Squares	df	Mean Square	F	Sig.
Regression	256.233	2	128.117	11.403	.000
Residual	1629.064	145	11.235		
Total	1885.297	147			
Adjusted R Square					.124

The result of the Multiple Linear Regression (MLR) from table 6 above revealed that information satisfaction has a mediating role on the relationship between college attributes and college choice satisfaction. Information satisfaction and college attributes are found to exert a significant positive influence on college choice satisfaction. In additional partial mediation occurs since the relationship between college attributes and college choice satisfaction is reduced in absolute size but is different from zero (referring to table 3 and table 6 respectively, beta value reduced from 0.218 to 0.161) when information satisfaction as mediator is controlled. This finding provides a new prospective in understanding the nature of the relationship between college attributes and college choice satisfaction.

DISCUSSION AND IMPLICATIONS

According to Hirschman (1970) the inability of a service organization to satisfy its customers will result in two negative feedback mechanisms: customers will stop buying the service and customer complaints express their dissatisfaction. As such, customer satisfaction is paramount as it is highly linked to customer loyalty and retention (Rust & Zahorik, 1993; Hallowell, 1996; Athiyaman, 1997; Beerli, Martin & Quitana, 2004; Helgesen & Nesset, 2007). Hence for service organizations such as educational institutions where competition is intense there is a growing need for a deeper understanding of customer satisfaction requirements.

This present study has examined the association of college attributes and information satisfaction with college choice satisfaction and in doing so, has validated the hypotheses using the data collected. The findings from the present study provide strong support of the four hypotheses identified earlier and help clarify the role of college attributes and information satisfaction in the international students' choice of college. It is perhaps not unusual to find that the data collected from this empirical study reveal that students' choice satisfaction may not only depend on attributes of the college (Oliver 1997; Athiyaman 1997) but what is more important is the satisfaction surrounding the information acquired with respect to those attributes on which their college choice was based on. Consequently their satisfaction with the information resulted in their satisfaction acquired with their choice of college (Spreng, Mackenzie & Olshavsky, 1996; Bruce, 1998). In other words, it can be suggested that the more the information meets the requirement of the students' choice criteria (based on attributes of the college), the more the students will be satisfied with their choice of college.

In addition this study also attempts to examine the mediating effect of information satisfaction towards the relationship between college attributes and college choice satisfaction. As clarified by Baron and Kenny (1989): "Mediators explain how external physical events take on internal psychological significance. Whereas moderator variables specify when certain effects will hold, mediators speak to how and why such effects occur." (p.1176). An important finding involves the effect that information satisfaction holds in explaining the relationship between college attributes and college choice satisfaction.

With reference to Baron and Kenny's (1989) explanation, a very important contribution of this study is the revealing of information satisfaction as a mediator variable that enhances an understanding in explaining why there is a correlation between college attributes and college choice satisfaction. The rational in college choice satisfaction among the students is due to their satisfaction of the information they have acquired regarding the attributes of that particular college on which their evaluation was based upon.

Information satisfaction may be implied to function as a mediator to the extent that it accounts for or serves to clarify the nature of the relationship between attributes (independent variable) and college choice satisfaction (dependent variable). In other words, rather than hypothesizing a direct casual relationship between college attributes and college choice satisfaction, a mediational model hypothesizes that college attributes cause information satisfaction, which in turn causes student's choice satisfaction.

This association is quite logical since information satisfaction as the mediating variable is the one actually causing the satisfaction in student's college choice. Hence, based on this study, it can be implied that firstly, students will initially seek for relevant information of few colleges and will make their college choice based on the attributes that are of importance to them. Secondly, in confirming their satisfaction of their choice, they will evaluate the college performance against the information acquired. Students will be satisfied with their choice of college if college performance conforms to the information regarding the attributes of the college. Their satisfaction with their choice of college is therefore dependent on their satisfaction of the information they have acquired with regards to the college attributes.

Another important finding was obtained through the MLR results regarding the association between information satisfaction, college attributes and college choice satisfaction. Based on the standardized Beta value, information satisfaction is the more important predictor of choice satisfaction as contrasted to college attributes. This further supports the fact that students' college choice satisfaction is not totally reliant on attributes of the college but what is more important is the agreement encompassing the information acquired with respect to those attributes on which their college choice was based upon. In view of that, students satisfaction with the information acquired is the actual reason for their satisfaction with their choice of college. Hence, it can be implied that the further the information meets the prerequisite of the students' choice criteria (based on attributes of the college), the more will the students be satisfied with their choice of college.

Results of this study indicate that students are satisfied with their choice of college based on their information satisfaction with respect to certain attributes of the college and among others are career development provided by college, financial factors and academic recognition. Items under career development include internship opportunities and soft skill development. The financial factors consist of affordable fees, cost of living and financial aids. Academic recognition comprises appropriate exemption and wider transferability selections.

Results also reveal that the majority of students will search and evaluate between three to five colleges prior to their choice decision. This corresponds to previous research where it was proposed that when the customer perceived there are large differences between brand features/ attributes, they will be critical about which product/ service meets their needs and hence the search for information of a few alternatives will be greater (Ducan & Olshavsky, 1982; Urbany, Dickson & Wilkie, 1989; Iglesias & Guilen, 2002).

Recommendations

As clearly indicated by previous researchers, choice satisfaction is an important critical success factor to all organizations. Satisfaction will result in customer loyalty and the impact of customer satisfaction will lead to improvement in market share. There are a number of factors that have significant influence on students' college choice satisfaction. While administrators, marketers as well as educators of educational institutions cannot control which potential students eventually choose their respective colleges, they may be able to increase their likelihood of student enrollment. This study, therefore, recommends that there are a few proactive actions and measures that could assist these educational institutions.

First, involve marketers in their promotional process. This study may assist marketers of educational institutions in appraising their promotional effort and recruitment approach as the findings may be of help to them to understand the multiple influences affecting student's satisfaction. As such these institutions might be able to come up with better and more successful marketing strategies to attract and retain students. The result of this study does indicate that students' information satisfaction is vital to students' choice satisfaction. However, due to availability of colleges to choose from, many prospective students will experience an information overload and may not be able to effectively compare and contrast college offerings within their choice set. It is recommended that rather than providing general information of their respective college, just as any other college generally does, marketers can be more effective by focusing on their strengths or attributes that students find to be of importance and are satisfied about. Marketers need both sensitivity and sophistication in their promotional strategy. For example, based on this study it was found that the students of the particular college are satisfied with the career development (internship and soft skill development) provided by the college. With such valued information college could definitely use it as part of its promotional approach.

Next, involve college administrators in providing financial assistance to the students. With respect to financial factors, it is a common reality that international students pay higher tuition fee than local students. Previous literature has established that financial factors (tuition fees and cost of living) seem to be one of the most critical factors in determining students' choice and the result of this study further confirms their work. It is recommended that in addition to providing affordable fees for tuitions and hostels, administrators could provide supplementary alternatives to assist and attract students. Some possible options are for the college to offer grants, scholarship or part-time jobs in campus (such as library assistants or research assistants). Alternatively college could collaborate with financial institutions from various countries in supporting these students. In fact as a recommendation it would be good if college itself could offer interest free loans to deserving students. As a requirement for the loan, these students can in turn serve the institution.

Subsequently, due to its intangibility and the element of risk, it is natural that students would choose a college that is highly regarded and widely accredited. Students would prefer colleges that confer degrees acceptable either by other colleges (if they wish to transfer or pursue their studies) or by employers (if they decide to work upon completion of their degree). Hence it is very important for marketers and administrators to convince students by putting an emphasis on the college reputation when promoting it. It would be of competitive advantage if the college could provide credible testimonial of their recognition, for example, in addition to the partnership programmes with international universities, institutions could provide listing of their association with top ranked universities where their students have been transferred to. Students' achievement (either in their career or in world class competition) could also be another excellent testament to college reputation. These are information that colleges should focus in their marketing promotion.

In conclusion, the education environment has become increasingly competitive and this research demonstrates that educational institutions need to demonstrate sensitivity in students' choice satisfaction. Marketers and administrators should be cautious and should have appropriate knowledge regarding students' feedback with respect to their satisfaction. Identification of college attributes that are important to students' satisfaction could be used by these institutions in their promotional strategies. By identifying these attributes educational institutions will be able to strengthen their image and reduce or eliminate their weaknesses and thus be able to improve their possibilities of being chosen as a choice of education destination among international students. As pointed out by Maringe (2006), promotional messages should put accent on issues or information students find very important to them and not issues educational institutions think are important to students.

This study should be interpreted with some concern as it is directed only to the relationship of college attributes towards students' satisfaction in information and choices hence there is also a necessity to recognize other

variables or constructs that may possibly have an impact on customer satisfaction. It is anticipated that this will stimulate future research considering the importance of customer satisfaction, For example, variables such as student's profile (gender, parental income, previous education etc.) could be studied to better understand customer satisfaction.

Additionally, future research could also be done on dissatisfaction aspects of the customer. It would definitely provide an interesting insight if one could ascertain the dimensionality of satisfaction in opposition to dissatisfaction.

Finally, it would be interesting if this study could be replicated. A comparative analysis could be done involving other educational institutions. This would ascertain whether there are significant differences between these institutions with respect to students' college choice satisfaction.

REFERENCES

- Athiyaman, A. (1997). Linking student satisfaction and service quality perceptions: The case of university education, *European Journal of Marketing*, 31(7), 528-540.
- Baron, R. M. and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical consideration, *Journal of Personality and Social Psychology*, *51*(6), 1173 1182.
- Beerli, A., Martin, J. D. and Quitana, A. (2004). A model of customer loyalty in the retail banking market, *European Journal of Marketing*, 38(1/2), 253 275.
- Bruce, H. (1998). User satisfaction with information seeking on the internet, *Journal of the American Society for Information Science*, 49(6), pp. 541-556.
- Burns, M. J. (2006). Factors influencing the college choice of African-American students admitted to the college of agriculture, food and natural resources, thesis presented to the faculty of the graduate school University of Missouri-Columbia.
- Chapman, D. W. (1981). A model of student college choice, *The Journal of Higher Education*, 52(5), 490-506.
- Churchill, G. A. and Suprenant, C. (1982). An investigation into the determinants of customer satisfaction, Journal of *Marketing Research*, 19(4), 491 504.
- Cubillo, J. M., Sanchez, J. and Cervino, J. (2006), International students' decision-making process, *International Journal of Educational Management*, 20(2), 101-115.
- Duncan, C. P.and Olshavsky, R. W. (1982). External search: The role of consumer beliefs, *Journal of Marketing Research*, 19, 32-43.
- Guiltinan, J. P. (1987). The price bundling of services: A normative framework, *Journal of Marketing*, 51, 74–85.
- Hallowell, R. (1996). The relationship of customer satisfaction, customer loyalty, and profitability: An empirical study, *International Journal of Service Industry Management*, 7(4), 27 42.
- Halstead, D., Hartman, D.and Schimdt, S.L. (1994). Multisource effects on the satisfaction formation process, *Journal* of the Academy of Marketing Science, 22(2), 114-129.
- Helgesen, Ø.and Nesset, E. (2007). What accounts for students' loyalty? Some field study evidence, *International Journal of Educational Management*, 21(2), 126-143.
- Hirschman, A.O. 1970, Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States, Harvard University Press, Cambridge
- Iacobucci, D. (1992). An empirical examination of some basic tenets in services. *Advances in Services Marketing and Management*, 1, 23 52.
- Iglesias, M. P.and Guillen, M.J.Y. (2002). Searching for information when seeking a restaurant, *Food Service Technology*, Vol. 2, pp. 35 45.
- Hisham, M.B., & Norzaidi, M.D. (2009). The Effect of Strategic Alignment on Strategic Information System Planning (SISP) Success: An Exploratory Study in Public Universities in Malaysia, *International Journal of Scientific Research in Education*, 2(2), pp. 76-87.
- Ismail, N. (2008). International students' satisfaction in their choice of a private higher education institution, paper presented at the 9th International Business Research Conference, 24 November 26 November, Melbourne, Australia.
- Ismail, N., & Leow, Y. M. (2008). Sourcing for Information: A Private Higher Education Perspective, paper presented at the 9th International Business Research Conference, 24–26 November, Melbourne, Australia.
- Ivy, J. (2001). Higher education image: A correspondence analysis approach, *The International Journal of Educational Management*, 15(6/7), 276 282.

- Joseph, M. and Joseph, B. (2000). Indonesian students' perceptions of choice criteria in selection of a tertiary institution: strategic implications, *International Journal of Educational Management*, 14(1), 40–44.
- Judd, C. M. and Kenny, D. A. (1981). Mediators, moderators and tests for mediation, *Journal of Applied Psychology*, 69, 307 321.
- Kozak, M. (2003). Measuring tourist satisfaction with multiple destinations attributes, *Tourism Analysis*, 7, 229 240. Loudon, D. I. and Della Bitta, A. J (1993), *Consumer behavior*, Singapore: McGraw-Hill.
- Maringe, F. (2006). University and course choice: Implication for positioning, recruitment and marketing, *International Journal of Educational Management*, 20(6), 466-479.
- Mazzarol, T.and Soutar, G. N. (2002). Push-pull factors influencing international student's destination choice, *International Journal of Educational Management*, 16(2), 82-90.
- Murray, K. B. (1991). A test of service marketing theory: Consumer information acquisition activities, *Journal of Marketing*, 55, 10-25.
- Murray, K. B.and Schlacter J. L. (1990). The impact of services versus goods on consumers' assessment of perceived risk and variability, *Journal of the Academy of Marketing Science*, 18(1), 51-65.
- Nunnally, J. C. (1967), Psychometric theory, New York, McGraw-Hill Book Company
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions, *Journal of Marketing Research*, 17, 460-469.
- Oliver, R. L. (1993). Cognitive, Affective and Attributes Bases of the satisfaction Response, *Journal of Consumer Research*, 20(3), 418 430
- Oliver, R. L. (1997), Satisfaction: A behavioral perspective on the consumer, McGraw-Hill, New York, NY.
- Parasuraman, A., Zeithaml, V. A.and Berry L. L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, 49, 41-50.
- Peters, T. (1988), Thriving on chaos, New York N.Y. Alfred A. Knopf.

education marketing. He can be reached on E-mail: nurlida.ismail@taylors.edu.my

- Pook, M. C.and Love, P. G. (2001). Factors influencing the program choice of doctoral students in higher education administration, *NASPA Journal*, 38(2), 203 223.
- Reichheld, F. F. (1996), The loyalty effect: The hidden force behind growth, profits, and lasting value, Harvard Business School Press, Boston, MA.
- Rust, R. T.and & Zahorik, A. J. (1993). Customer satisfaction, customer retention and market share, *Journal of Retailing*, 69(2), 193 215.
- Soutar, G. N. and Turner, J. P. (2002), Students' preferences for university: A conjoint analysis, *International Journal of Educational Management*, 16(1), 40-45.
- Spreng, R. A., Mackenzie, S. B.and Olshavsky, R. W. (1996). A reexamination of the determinants of consumer satisfaction, *Journal of Marketing*, 60, 15-32.
- Urbany, J. E., Dickson, P. R.and Wilkie, W. L. (1989). Buyer uncertainty and information search. *Journal of Consumer Research*, 16, 208-215.
- Wajeeh, E. M.and Micceri, T. (1997). Factors influencing students' college choice at traditional and metropolitan universities, paper presented at the 37th Annual Forum of the Association for Institutional Research, 18–21 May, Orlando, Florida. Retrieved January 1, 2007, from http://isis.fastmail.usf.edu/surveys/RePDF/199705 1.pdf.

🔤 © IJSRE

.....

E-mail: faridah387@salam.uitm.edu.my

62

¹ Ismail Nurlida a senior lecturer and is the Associate Dean (Teaching & Learning) for School of Business, Taylor's University College, Malaysia. She is pursuing her PhD at Universiti Teknologi MARA. Her research has been published in international conference proceedings and journal. Her research interests are in the areas of marketing specifically consumer behavior and higher

Professor Dr Hj Hassan Faridah, is a Director, Institute of Business Excellence, Universiti Teknologi MARA Malaysia. Currently, she is an active Fellow Member of professional Chartered Institute of Marketing (UK), and a Board Council and Regional Member for Malaysian CIM. Her research interests are in the areas of Marketing and Strategic Management for the corporate and small medium companies, financial institutions and trust fund, public and private education, and tourism and government agencies. He can be reached on Tel: +603 55211940 (DL)

Dr Mohamad Sheriff Nooraini obtained her PhD in Business Management from Universiti Teknologi MARA, Malaysia and is currently the Deputy Director (Coursework) Graduate Business School, Faculty of Business Management, UiTM. He can be reached on Tel: +603 55444793; E-mail: nooraini@salam.uitm.edu.my

iv Mohd Daud Norzaidi is an Associate Professor of Management, Faculty of Business Management, Universiti Teknologi MARA, Malaysia. His research interests include management information systems and management of education in higher learning institutions which won him more than 59 innovation awards at national and international levels. He has published more than 50 articles in international refereed journals (IJSRE, AELJ, IMDS, JCIS, JTL, IJMIE, JAWHAR, GMBR, IJDS, IMCS, JIBE, MPM, IJEF, Aslib Proce., Kybernetes, Humanomics, CWIS, BSS, IJBSR, IJIL, IJSS etc.), and conference proceedings (Harvard U. etc). he can be reached on Tel: +603 55211940; Email: zaidiuitm2000@yahoo.com