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The Determinants of Student Commitment and Student-Institution Engagement in Malaysian Higher Education Institutions

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Abstract

This study aims to identify the determinants that may provide the public and private HEIs with a competitive advantage in recruiting, retaining and engaging the students. Specifically, this study examines the effect of student satisfaction, dimensions of relationship investment and alternative attractiveness on student commitment, and consequently on the student engagement across public and private HEIs. To test the proposed framework, this research adopted the positivist, quantitative and deductive approach. Data were gathered using questionnaires from a sample of 300 public and private HEIs students and were analyzed using multi-group analysis in Structural Equation Modelling (SEM). The results show that in order to increase the student engagement, both the public and private HEIs should increase the student commitment and accomplish similar strategies that are to focus on student satisfaction and student direct investment. In spite of that, it is important for the private HEIs to focus on the institution social investment. This study provides understanding of how students can be retained and consequently guides the public and private HEIs in building stronger relationships with the students to achieve sustained competitiveness and survival in the industry.

Keywords: Relationship Investment, Student-Institution Engagement, Higher Education Institutions

Introduction

Malaysia envisioned to be a centre of education excellence and a hub for higher education in the Southeast Asia region. Rapid expansion of higher education can be seen in the nation, especially with the increased number of Higher Education Institutions (HEIs). Based on the statistics released by the Ministry of Education, despite the number of public HEIs remain at 20, the number of private HEIs has increased significantly from only 49 in 2010 to 486 in

2014 (Ministry of Education Malaysia, 2014). The rapid development of private HEIs is to accommodate the increase in student enrolment in HEIs (Bajunid & Wong, 2016).

The number of students enrolled in Malaysian private HEIs has increased substantially from 2014 to 2016, as shown in Table 1. On the contrary, the students' enrolment in public HEIs has decreased during the same time range. More importantly, the students' enrolment in private HEIs is higher than in the public HEIs for two consecutive years that are in 2016 and 2017 (Ministry of Education Malaysia, 2017).

Table 1: Number of Students' Enrolment

	2014	2015	2016	2017
Public HEIs	563,186	540,638	532,049	538,555
Private HEIs	493,725	493,926	595,347	565,852
Total	1,056,911	1,034,564	1,127,396	1,104,407

Source: Ministry of Education Malaysia (2017)

The figures apparently support the notion that private HEIs now play crucial roles in the development of Malaysia's higher education in contributing towards becoming the international hub of higher educational excellence and providing adequate education opportunities (Bajunid & Wong, 2016). With more private HEIs available in the local and global markets, students have more options of good education opportunities. With the rising power to choose any educational institution that perfectly matches their needs and wants, there is a high tendency for the students to become very demanding and switch to an alternative institution with better offering.

Accordingly, in order to win new students and retain existing students, all HEIs are challenged to design better offering that can penetrate the local and global education market. That is, every HEIs must ensure the relevance and competitiveness of their offering with respect to the development of knowledge as well as the local and global market needs. To achieve sustained competitiveness, marketing scholars have long raised on the significance of developing and maintaining stronger relationship with customers, rather than focusing on short-term measures including price, quality and satisfaction (Alqahtani, 2011; Carter, 2008; Circles, 2010; Hess & Story, 2005; Louis & Lombart, 2010). It has been highlighted that strong customer engagement will drive the customer willingness to exhibit brand supporting behaviours including making larger purchases, greater commitment and loyalty, positive word-of-mouth and active recommendations (Bowden, 2007; Circles, 2010; Roberts & Alpert, 2010; Sashi, 2012; Tripathi, 2009), and become the passionate advocates of a brand even in good or bad times (Ginman, 2011; Sashi, 2012). Thus, adapting this understanding to the context of the competition among the public and private HEIs, it may no longer suffice for the public and private HEIs to keep on competing in terms of education fees, quality and satisfaction to strengthen their offering but to move forward by building a stronger relationship with students. In another word, it is critical for the public and private HEIs to not only make the offer more desirable, attractive and preferable to the students but also do

whatever it takes to make the students to remain associated, interested and involved with the institutions.

Much research has been done to understand the Malaysian public and private HEIs. However, most of the studies are either conceptual in nature or focusing on identifying factors influencing students' selection of HEIs. Limited research has studied the marketing issues in Malaysian HEIs, particularly in branding aspect as well as relationship marketing. Given the limitation in the existing literature, and the rising needs to ensure the relevance and competitiveness of the HEIs's offering, a study examining the student-institution engagement across the public and private HEIs in Malaysia is needed. Hence, this study compares, (1) the effect of satisfaction on commitment, and consequently on the student engagement between the public and private HEIs, (2) the effect of dimensions of relationship investment (student direct and indirect investment, and institution economic and social investment) on commitment, and consequently on the student engagement between the public and private HEIs, and (3) the effect of alternative attractiveness on commitment, and consequently on the student engagement between public and private HEIs.

Literature Review and Hypotheses Development

Previous studies, which adopted the Rusbult's Relationship Investment model, have confirmed the significant effect of satisfaction, investment size and alternative attractiveness on commitment, in which the commitment is strengthened by satisfaction and investment size, but weakened, by alternative attractiveness (Breivik & Thorbjornsen, 2008; Li & Petrick, 2008; Sung & Campbell, 2009; Sung & Choi, 2010). Satisfaction can be defined as "a consumer's affective state resulting from an overall appraisal of his relationship with a retailer, trust as "a consumer's confident belief in a retailer's honesty towards the consumer" (Kristof De Wulf, Odekerken-Schroder, & Kenhove, 2003, p. 11). Following de Wulf, et al. (2003), satisfaction can be referred as a student's attitude towards HEI resulting from his/her overall appraisal of the relationship with HEI. Commitment refers to "a consumer's enduring desire to continue a relationship with a retailer accompanied by this consumer's willingness to make efforts at maintaining it" (Kristof De Wulf, et al., 2003, p. 11). Following de Wulf, et al. (2003), student commitment can be regarded as a student's enduring desire to continue his/her relationship with HEI.

In human interpersonal relationship context, Rusbult (1983) proposed Relationship Investment model, in which relationship investment serves as one of the predictors of relationship commitment. In the model, relationship investment is defined as the resources attached to a relationship, which would be lost or seriously diminished if the relationship were to end (Goodfriend & Agnew, 2008; Le & Agnew, 2003). Instead of looking into the investment made by both parties involved in a relationship, the model only considers the individual perception of his/her own relationship investment in influencing the means of an individual becoming committed to a relationship end (Goodfriend & Agnew, 2008; Le & Agnew, 2003; Rusbult, 1980, 1983; Rusbult, Martz, & Agnew, 1998). Formally termed as investment size, individual own relationship investment is operationalized as "*the magnitude and the importance of the resources attached to a relationship*" (Rusbult, et al., 1998, p. 359). In other words, it refers to the individual perception of how much and how important of his/her own investment in a relationship.

Realizing the applicability of the Rusbult's Relationship Investment model, many of the business-based studies have adopted the model. Following the model, relationship investment is termed as investment size. In particular, to describe the business-to-business (B2B) relationship, investment size is defined as "*the degree of the invested resources for maintaining the long-term relationship*" (Huang, Cheng, & Farn, 2007, p. 754) while in the business-to-customer (B2C) context, investment size is operationalized as "*how much that customers have already invested in a relationship*" (Nusair, Parsa, & Cobanoglu, 2011, p. 835). Besides, in several B2B studies, other terms are used to refer to relationship investment. The terms include relational-specific investment (RSI), which refers to "*the extent to which exchange members undertake tangible or intangible investments in a specific inter-firm partnership such that the investments will lose value unless the relationship continues*".

A study by Rusbult (1980) highlighted that larger intrinsic and extrinsic investments produce greater commitment, which consequently leads to relationship continuity (Yu, 2015). Although Nysveen, Pedersen, Thorbjornsen and Berthon (2005) revealed that only direct (intrinsic) investment serves as a significant predictor, the subsequent study by Moon and Bonney (2007) strengthen the previous findings by pointing out that both intrinsic (direct) and extrinsic (indirect) investments play a significant role to influence commitment. Thus, it could be expected that student direct and indirect investment play a major role to affect student commitment. Accordingly, it may be posited that

- H1: The positive influence of student satisfaction on student commitment differs significantly across public and private HEIs.
- H2: The positive influence of alternative attractiveness on student commitment differs significantly across public and private HEIs.
- H3: The positive influence of student direct investment on student commitment differs significantly across public and private HEIs.
- H4: The positive influence of student indirect investment on student commitment differs significantly across public and private HEIs.

Based on Social Exchange Theory and Signalling theory, de Wulf et al. (2001) propose the Relationship Exchange model, which perceived relationship investment is posited as a mediator in a relationship between relationship marketing efforts and relationship quality. In the model, which focuses on the consumer-retailer relationship, perceived relationship investment is defined as "*a consumer's perception of the extent to which a retailer devotes resources, efforts, and attention aimed at maintaining or enhancing relationships with regular customers*" (De Wulf, et al., 2001, p. 35). Basically, it refers to an individual's perception of the extent to which his/her partner in a relationship has actively made efforts that are intended to retain the customers. With regards to the student-institution relationship, perceived relationship investment can be regarded as the student's perception of the extent to which the Higher Education Institution (HEI) has actively devoted resources and made efforts that are aimed to retain the student in a relationship with an institution (Aurier & de Lanauze, 2012; Kim, Kim, Jolly, & Fairhurst, 2008; Wang & Head, 2007). Hence, in this study, perceived relationship investment is better termed as a perceived institution investment.

This research adopts two major dimensions of perceived institution investment i.e. economic and social investment. Institution economic investment (IEI) is defined as the student's perception of the institution's efforts aimed at building functional connections, which such efforts are easily traced financially and less personal in nature; whereas institution social investment (ISI) as the student's perception of the institution's efforts aimed at building emotional connections, in which such efforts are hardly traced financially and more personal in nature (Bolton, Smith, & Wagner, 2003; Dorsch, Carison, Raymond, & Ranson, 2001; Morais, Backman, & Dorsch, 2003; Morais, Dorsch, & Backman, 2004).

In addition, past studies revealed that perceived relationship investment has been established as a significant predictor of commitment (Aurier & de Lanauze, 2012; Odekerken-Schroder, De Wulf, & Schumacher, 2003; Shi, Shi, Chan, Liu, & Fam, 2011). Hence, the findings justify that when the customers perceive that the partner has made significant attempts to maintain or enhance a relationship with him/her, they are more likely to commit in a relationship. Despite little research on the effect of the dimensions of perceived relationship investment, Bolton et al. (2003) showed that both partner social and economic investments will promote the customer to respond more favourably to the relationship.

Furthermore, they also highlighted that the effect of the social and economic investment might differ significantly. In particular, investment in social resources has a greater influence on customers' interpersonal satisfaction with the company representatives and perceived value, while investment in economic resources has a stronger effect on customers' overall satisfaction with the organization. Further, they added that the role of social investment could transcend economic investment, which it creates stronger bonding to the extent that the emotional bonding developed could compensate the lacking in the structural bonding.

Thus, it could be asserted that both economic and social investments play a significant role to trigger the customer to value the relationship more favourably, but the effect of social investment might outweigh the economic investment. Thus, based on all the above findings, it could be expected that both institution's social and economic investments will have a positive influence on the relational outcome. Therefore, it could be assumed that

H5: The positive influence of institution economic investment on student commitment differs significantly across public and private HEIs.

H6: The positive influence of institution social investment on student commitment differs significantly across public and private HEIs.

It has been established that customer engagement is essential for companies to win and retain the customers (Circles, 2010; Forbes, 2010; Sedley, 2010; Voyles, 2007), but there is no universal definition of customer engagement adopted so far. From a general perspective, customer engagement is defined as "*the degree to which a company succeeds in creating an intimate long-term relationship with the customer*" (Voyles, 2007, p. 2). Besides, customer engagement is defined as the emotional connection between a customer and the engagement object, including a company or a brand that will encourage larger purchases, greater commitment and loyalty, positive word-of-mouth and active recommendation (Circles, 2010; Forrester, 2008; Haven & Vittal, 2008; Peplemetrics, 2009; Roberts & Alpert, 2010).

Taking the marketing perspective, customer engagement plays a significant role in the development and sustainability of customer-brand relationship (Bowden, 2009a; Brodie & Hollebeek, 2011; Brodie, Hollebeek, Juric, & Ilic, 2011; Hollebeek, 2009; Sashi, 2012; van Doorn et al., 2010; Verhoef, Reinartz, & Krafft, 2010). In fact, marketing scholars assert that

customer engagement outweighs the roles commitment in predicting the strength of an established customer-brand relationship (Bowden, 2009b; Sashi, 2012; Zainol, 2015). While commitment is frequently adopted to indicate the endurance of a relationship, customer engagement to a greater extent indicates the enduring as well as the intimacy of the relationship (Sashi, 2012; Tripathi, 2009). That is, customer engagement has the capability to reflect not only the customers' strong willingness to sustain a relationship, but also their deep intention to be intimately involved in a relationship to the extent that they are willing to act positively for the best interests of the partner (Haven & Vittal, 2008; Singh, Kumar, & Singh, 2010; Tripathi, 2009). Although the length of a relationship established would be sufficient to indicate the relationship strength, with additional insight on the depth of a relationship, customer engagement would provide better and more accurate explanation of successful customer-brand relationship (Carter, 2008; Sashi, 2012; Tripathi, 2009), particularly when emotions are at work.

In addition, in the Customer Engagement Matrix, it has been described that engaged customers are customers that not only make large purchases, but also make a positive review of the brand and promote the brand to other customers at every opportunity (Haven, 2007; Roberts & Alpert, 2010). Not only that, they also recommend, participate, provide feedback and become the passionate advocates of a brand even in good or bad times (Ginman, 2011; Sashi, 2012). Besides, customer engagement is also described as achieving high relevance of brand to customers, strong emotional connection between customer and brand (Rappaport, 2007) and, customer's sustained attention towards a brand (Abdul-Ghani, Hyde, & Marshall, 2011; Scholer & Higgins, 2009), in which the positive state of mind will further drive the customer willingness to exhibit brand supportive behaviours including increasing purchases, remaining loyal, continuing investment and making positive recommendations (Sashi, 2012; Tripathi, 2009) as to sustain a long term intimate relationship with the relationship partners.

Given the significance of customer engagement to reflect the strong bond between customer and the engagement object to the extent that will induce customers voluntary action to support the existence of brand, it is appropriate for this study to put forward the roles of student engagement as an indicator of the level of student-institution relationship. Accordingly, in this study, student engagement is defined as the intensity of the student's psychological state characterized by the emotional connection, sustained attention, brand relevancy and commitment to an active relationship with Higher Education Institution (Abdul-Ghani, et al., 2011; Scholer & Higgins, 2009).

Empirical evidence of the antecedents of customer engagement has been scarce. Based on the limited findings, it has been revealed that commitment is the strongest determinant of customer engagement (Flynn, 2012). Malciute (2012) also highlighted that commitment significantly affect all three engagement dimension, i.e. behavioural, emotional and cognitive. Accordingly, it could be hypothesized that

H7: The positive influence of student commitment on student-institution engagement differs significantly across public and private HEIs.

Drawing upon the theories and literature, the hypotheses development is depicted in the research framework presented in Figure 1 below.

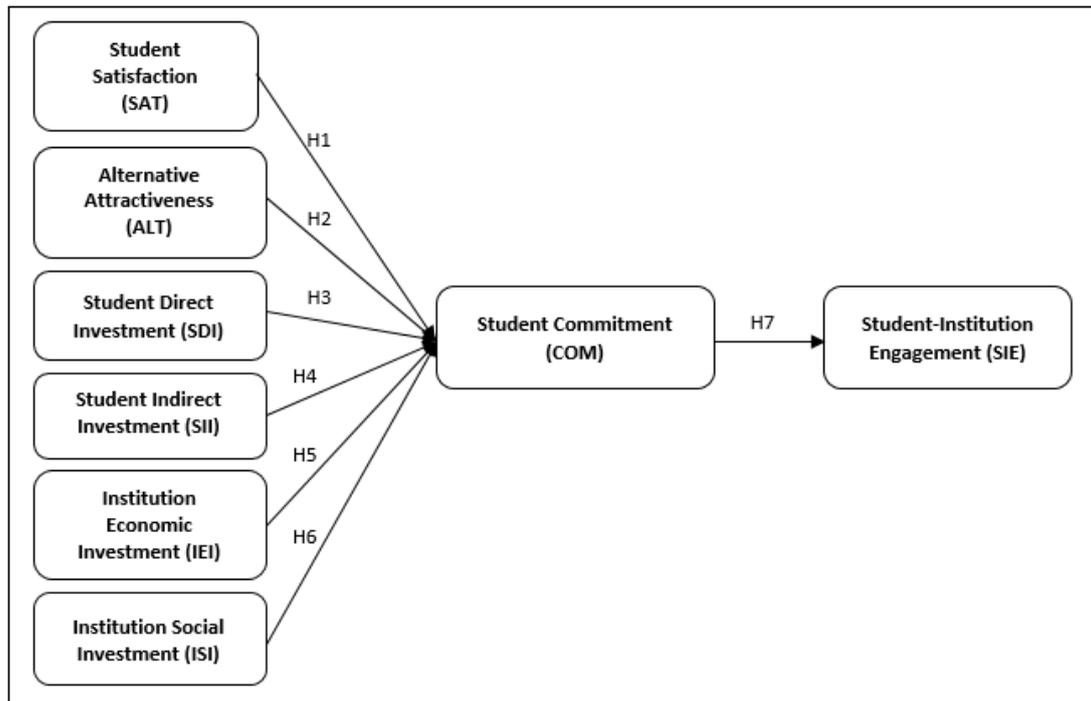


Figure 1: Proposed Research Framework

Methodology

Research Design, Sampling and Measures

This research adopts a quantitative and deductive approach as these approaches are applicable to empirically investigate the relationships among the underlying constructs (Creswell, 2009; N. K. Malhotra, 2009; Zikmund & Babin, 2006). Survey strategy is used to collect data as it is economical in terms of cost, time and effort than any other strategies, and the most efficient tool in collecting data from a larger sample to produce generalized results (Bhattacharjee, 2012; N. Malhotra, Krosnick, & Thomas, 2009; Saunders, Lewis, & Thornhill, 2009; Shukla, 2008). As to verify the relationships proposed, the data is collected from each individual student in a natural environment or non-contrived setting with minimal interference of the students' normal routine (Sekaran & Bougie, 2016). Accordingly, the unit of analysis for this research is an individual student within the specific data collection period and setting (Bhattacharjee, 2012; Zikmund & Babin, 2006).

The population of this study is all students in the selected public and private HEIs in the West Malaysia. The total number of student enrolments in both the public and private HEIs is 1,104,407 (Ministry of Higher Education Malaysia, 2007). For this research, students' evaluations as customers of the relationship factors that will induce them to engage are critical. As to ensure a valid and reliable evaluation from the students, this research considers only the existing students that possess some times of experience studying at the HEIs (MacKenzie & Podsakoff, 2012; Morais, et al., 2004). Given that six months is a good enough duration to enable the customer to give his/her true evaluation (Han, Kim, & Hyun, 2011), therefore, the sampling frame of this study comprised students who have been studying in the HEIs for more than six months or at least in their second semester. Specifically, using the street-intercept systematic sampling, 300 students who are at least in their second semester

of studies were selected as samples. The data collection was conducted in four randomly selected higher education institutions (HEIs)

A questionnaire with multiple items and seven-point Likert scale (1- strongly disagree to 7 – strongly agree) was developed for all proposed constructs. All the 53 measurement items used were adapted from the extant literatures and, slightly modified to ensure the appropriateness in the institution-student relationship context. Specifically, items to measure institution economic investment (IEI), institution social investment (ISI), student direct investment (SDI) and student indirect investment (SII) were adapted from Zainol, Yasin, Omar and Hashim (2014). The satisfaction, alternative attractiveness and commitment are measured using Sung and Choi (2010), Rusbult et. al. (1998) and Fullerton (2011), respectively. Student engagement is measured using the scale adapted from Cheung, Lee and Jin (2011).

Analysis Procedure

Prior to actual survey, a pilot study was conducted with experts and potential respondents to identify any potential problems with the questionnaire. To ensure the validity and reliability of the measurement, the Exploratory Factor Analysis (EFA) and reliability analysis were performed. A multigroup analysis in Structural Equation Modeling using AMOS was used to test the proposed hypotheses.

Findings

Out of 300 responses collected, 25 responses were excluded due to the responses have either more than 10 percent of unanswered items or the same answer to all questions (Hair, Black, Babin, & Anderson, 2010). A total of 275 valid responses were used for further analysis, representing a response rate of 91.7 percent. An overview of the respondents' profile reveals that the sample is slightly dominated by female respondents (57.3%). The mean age of the respondents is 27.62 years old and majority of them are in the age range of 20 to 24 years old (41.4%). A majority of the respondents are Malay (87.3%). More respondents are studying at the Public Higher Education Institutions (56%). With respect to program, most of the respondents are taking bachelor degree (70.2%). Finally, respondents are mostly in their third year of study (44.4%).

The screening of the data revealed no missing values for all items and all the SEM assumptions were met. Multigroup analysis for the measurement model involves two tests, i.e. examining the adequacy of goodness-of-fit for the model across groups and testing the best-fit model. A good fit model is reflected by a significant chi-square (χ^2) value, the normed Chi-square value in the range of 1 to 5, the comparative fit index (CFI) exceed 0.8 and the root mean square error of approximation (RMSEA) below 0.1 (Garson, 2015; Gaskin, 2012; Hair, et al., 2010; Schumacker & Lomax, 2016). Since this study intends to test the moderating effect, the adequacy of the model was also examined simultaneously and separately by the types of HEIs. The results of the confirmatory factor analyses (CFA) of this research (Table 1) show a significant chi-square (χ^2) value at $\alpha=0.05$. Further, the normed χ^2 , comparative fit index (CFI) and root mean square error of approximation (RMSEA) values meet the acceptable threshold levels of a good fit model, revealing a good fit for all measurement models.

Table 1: Goodness-of-fit (GOF) Indices

Measurement model	χ^2	DF	P	χ^2/df	CFI	RMSEA
Overall	1347.926	601	0.000	2.243	0.908	0.071
Simultaneous	2276.402	1231	0.000	1.849	0.875	0.058
PublicHEIs	1090.338	601	0.000	1.814	0.888	0.08
PrivateHEIs	1158.649	601	0.000	1.928	0.86	0.085
Acceptable value*	Significant at a = 0.05			1-5	> 0.8	< 0.1

After achieving the model fit, the invariance test was conducted. The results as presented in Table 2, shows the chi-square difference value of 27.416 with 29 degree of freedom that is not significant at the 0.05. Hence, the two models do not differ significantly in their goodness-of-fit. Further, the CFI and RMSEA difference shows a value that is below 0.01 and 0.015, respectively. Thus, the results indicate that invariant (constraint) model is better fitting than variant (constraint) model. Accordingly, to proceed with the structural model, the invariant model was used.

Table 2: Invariance Test for Measurement Model Results

Model	DF	CMIN	P	CFI	RMSEA
Unconstraint model	1202	2248.986	0	0.875	0.059
Constraint model	1231	2276.402	0	0.875	0.058
Difference, Δ	29	27.416	0.549	0.000	0.001
Acceptable rules	significant if $p < 0.05$			$\Delta < 0.01$	$\Delta < 0.015$

Unstandardized regression weights for both public and private groups are all significant ($p < 0.05$), and standardized regression weights are all above 0.5, indicating that all constructs are significantly representative by their corresponding items. Further, the critical ratios for differences show no value exceeded ± 1.96 , indicating no significant difference across groups. Thus, all paths will be constrained to equality in the structural model.

The structural model also shows a good fit to the data as presented in Table 3. Further, the results of the structural test show the chi-square difference and z score values for all paths are not significant ($p > 0.05$, $< \pm 1.96$) across group for types of HEIs. Hence, the hypothesized structural relationships operated similarly for both public and private HEIs (Figure 2 and Figure 3). Accordingly, all hypotheses (H1 to H7) are not supported.

Table 3: Structural Invariance Test Results

			PublicHEIs		PrivateHEIs		z-score	$\Delta\chi^2$	p
			Estimate	P	Estimate	P			
COM	<-- -	IEI	-0.489	0.015	-0.465	0.001	0.1	0.01	0.922
COM	<-- -	ISI	0.183	0.319	0.327	0.022	0.62	0.355	0.551
COM	<-- -	SDI	0.987	0.001	0.422	0.02	-1.594	2.667	0.102
COM	<-- -	SII	-0.063	0.713	0.093	0.343	0.792	0.62	0.431
COM	<-- -	SAT	0.543	0.002	0.646	0.001	0.393	0.147	0.701
COM	<-- -	ALT	0.001	0.986	0.072	0.214	0.746	0.503	0.478
SE	<-- -	COM	0.826	***	0.692	***	-0.995	0.973	0.324

Note:

IEI - Institution Economic Investment, ISI - Institution Social Investment, SDI - Student Direct Investment, SII - Student Indirect Investment, SAT – Satisfaction, ALT - Alternative Attractiveness, COM – Commitment, SE - Student-institution engagement

*** p < 0.001

Goodness-of-fit statistics: $\chi^2=2287.21$ (df=1215, p=0.000), $\chi^2/df=1.882$, CFI=0.872, RMSEA=0.06

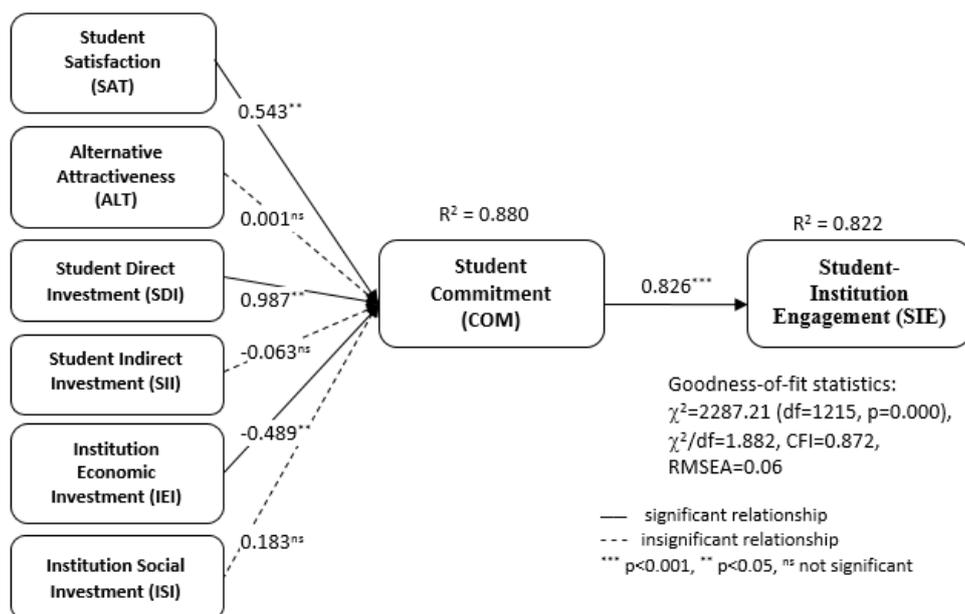


Figure 2: Structural Model for Public HEIs

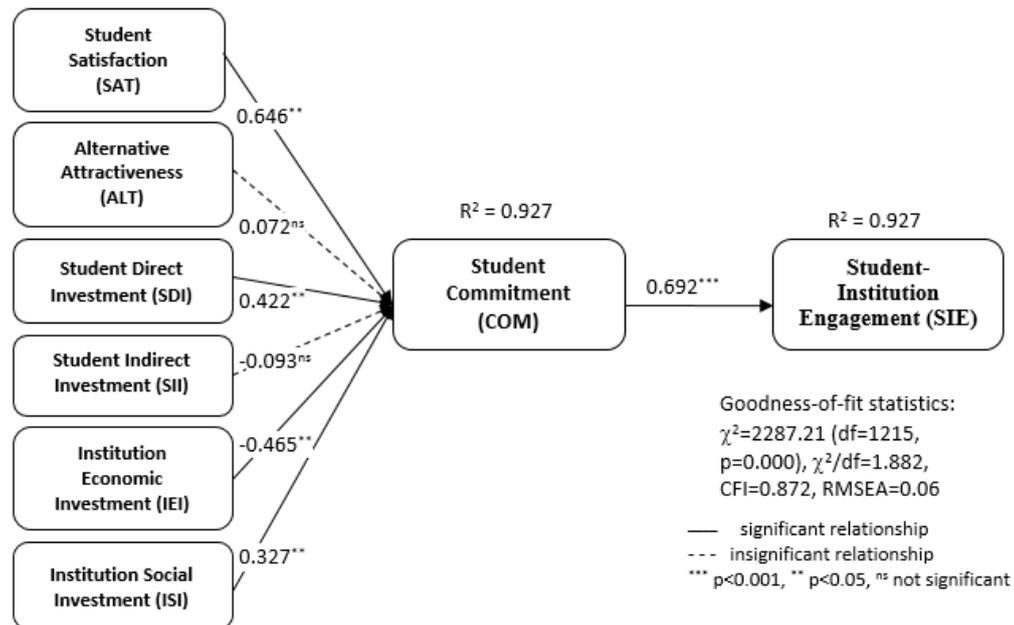


Figure 3: Structural Model for Private HEIs

The results reveal that to engage the students, both public and private HEIs must increase the student commitment (COM). To gain student commitment (COM), the public and private HEIs need to increase the student satisfaction (SAT) as well as student direct investment (SDI). As for the institution economic engagement (IEI), it poses negative effect on student commitment (COM), indicating that institution economic engagement (IEI) needs to be reduced as to increase student commitment (COM). The effect of institution social investment (ISI) on student commitment (COM) is not significant for public HEIs. For private HEIs, the effect of institution social investment (ISI) on student commitment (COM) is positive but the least compared to other factors. As for student indirect investment (SII) and alternative attractiveness (ALT), both have no significant effect on student commitment (COM).

Conclusions

Despite operating in different competitive landscape, both the public and private HEIs should focus on somewhat similar strategies to achieve a competitive advantage in recruiting, retaining and engaging the students. Basically, to engage the students, both public and private HEIs must increase the student commitment. In order to increase the student commitment, public HEIs should increase the student satisfaction towards their services, highlight the investment made by students in term of money and efforts, and provoke the level of investment made by the institutions in providing better learning infrastructure. Regarding the private HEIs, to provide better learning infrastructure to their students, they should implement the same strategies as mentioned for the public HEIs. Nevertheless, the private HEIs should also concentrate on building emotional bond with the students through the academicians and staff.

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