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## **Building students' loyalty in private higher education institutions: activities for competitiveness**

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**Abstract:** The purpose of this study is to examine the factors that influence students' loyalty in the private higher education (PHE) institutions. The survey is conducted on 225 respondents who are based from 27 PHE in Bandung City, Indonesia. The results reveal that the image of higher education institution does not affect students' satisfaction, but it affects the trust and loyalty of students. It is then discovered that the image of higher education institution and students' satisfaction indirectly affects students' loyalty through students' trust. Therefore, students' trust is a good mediator for higher education institution's image and students' satisfaction to students' loyalty. Based on the findings, this study also provides a strategy for managers in private higher education institutions in building students' loyalty. The implications of the study raise a number of opportunities for future research by both public and private higher education institutions on attracting and retaining students.

**Keywords:** higher education image; student satisfaction; student trust; student loyalty.

**Reference** to this paper should be made as follows: Gunarto, M., Hurriyati, R., Disman and Wibowo, L.A. (xxxx) 'Building students' loyalty in private higher education institutions: activities for competitiveness', *Int. J. Education Economics and Development*, Vol. X, No. Y, pp.xxx-xxx.

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This paper is a revised and expanded version of a paper entitled 'Building student loyalty in private higher education institutions: activities for competitiveness' presented at the 4th Sebelas Maret International Conference on Business, Economics and Social Sciences (SMICBES), Faculty of Economics and Business, Universitas Sebelas Maret, 9–10 August 2017.

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## 1 Introduction

Based on the sources of funding, there are two groups of universities in Indonesia which are state higher education (SHE) and private higher education (PHE). Although there is no dichotomy between SHE and PHE, the quality still shows that some PHE quality is under SHE. The Ministry of Research, Technology and Higher Education of the Republic of Indonesia has categorised universities in Indonesia based on its accreditation, i.e.:

- a superior
- b good
- c sufficient.

Generally, prospective students will choose a higher education institution based on its quality. Due to the fact that most SHE has superior quality compared to PHE, most of the prospective students will choose SHE. However, the capacity of SHE is very limited. This makes some students who are not accommodated in SHE will eventually choose PHE as an option. However, it must be noted that all PHE's students are those who fail in the SHE. In fact, some students are accepted in top PHE, e.g., Telkom University, Parahyangan Catholic University and several private universities in other major cities. However, there are also PHE that possesses low quality, thus lacking students.

Based on the above paragraph, it can be implied that PHE requires effective marketing strategies to attract qualified prospective students and meet the university's existing capacity. Fulfilments of students capacity in PHE is important, because if the number of students is not met with the capacity that exists, PHE may not be able to continue its business since their funding source mostly comes from the students (Tobari, 2015).

This effort is made by PHE to attract many prospective students can be considered through the use of customer-oriented marketing strategies. According to Kotler and Armstrong (2016), customer-oriented marketing strategies should be able to identify which customers will be served and how to serve them. To do this, the company must be able to develop programs and marketing plans that can deliver appropriate value to customers. Well-maintained customers will be well served. Therefore, the companies will not lose them (Kotler and Armstrong, 2016). Customers in higher education institutions are students. Thus, higher education institutions should be able to pay attention in order to provide excellent educational services to their students. This is one of the efforts to keep their students loyal to the institution.

Customer loyalty plays a vital role in the fierce competition and low market growth and keeping loyal customers is very important for the company's business continuity (Hurriyati, 2015; Peter and Olson, 2010) as well as to improve financial performance (Hurriyati, 2015). Students as customers could contribute and play an essential role to higher education institutions in creating value for PHE. Therefore, PHE needs to build a good relationship with students to maintain the business continuity. The primary goal of building customer relationships is to build strong customer loyalty (Gunarto, 2013b; Gunarto et al., 2016b). In higher education, building customer loyalty means building students loyalty.

Students' loyalty is an essential measure of the success in higher education institutions which aims to keep students until they graduate and then draw them back as alumnae (Rojas-Méndez et al., 2009). Graduate students have a unique position and bargaining value, because they have experiences and active engagement with higher education institution, although they did not participate actively in the learning process. Their experience and engagement can be beneficial to the development of PHE.

Students' loyalty is also shown by the role of students as good advocates; in recommending the institution to others; and it shall be noted that graduate students are increasingly returning to higher education institutions for further study (Thomas, 2011). However, it is not easy to maintain students' loyalty, because their behaviour is significantly different from the primary and secondary education. Low loyalty in PHE encourages universities to adopt various strategies and tactical steps to attract new students and retain them. Therefore, the efforts to build students' loyalty are essential to be undertaken at higher education institutions (Helgesen and Nettet, 2007a, 2007b; Heo and Lee, 2016), particularly in PHE.

The research field of HE marketing is still at a relatively early stage with much research needs to be done on the identification of problems and strategic aspects (Hemsley-Brown and Oplatka, 2006). Research on students' loyalty models has been done, but students' loyalty model cannot be used in general. Research on students' loyalty model is different one another. Therefore, it is necessary for further research in obtaining student loyalty model which can be applied in PHE. This model can be used to face the intense competition among higher education in increasing or maintaining the number of students.

## **2 Literature review**

### *2.1 Students' loyalty*

Loyalty is a manifestation of the fundamental human need for having, supporting, gaining of security and building attachment and creating emotional attachment (Alma, 1992; Hurriyati, 2015). Customer behaviour and loyalty are usually expressed by actual repurchase, intention to repurchase and giving recommendations to others and have a good relationship with the service provider (Eliwa, 2006). Dick and Basu (1994) view customer loyalty as the relative strength of relationships between individual attitudes and repeat purchases mediated by social norms and situational factors. Particularly in higher education, loyalty is a positive commitment of the students to the educational services that they experience during their study in the higher education institution (Wahyuningsih, 2007).

Student loyalty is a combination of the willingness of students to give positive word-of-mouth about the organisation and recommendations on educational institutions for family, friends, people in business and organisations. It contains a component of attitudes and behavioural components (Helgesen and Nettet, 2007b; Hennig-Thurau et al., 2001; Kuanusorn and Puttawong, 2015; Pham and Lai, 2016; Verhoef et al., 2002) as well as the function of student commitment to institutions (Tinto, 1988). Students' loyalty is a focus on students' intention to recommend to others, retention and repurchase (Chen, 2016; Evanschitzky and Wunderlich, 2006; Yu and Kim, 2008). Students' loyalty is devotion to the students' alma mater that is characterised by the desire or intention of students to share good reviews to others, to a positive attitude towards higher education institutions and committed to repurchase, help and pay attention to the alma mater as a graduate student.

### *2.2 Students' trust*

Trust is the foundation of business (Rofiq, 2007). Business transactions between two or more parties will occur if there is a sense of trust amongst them. Trust will increase the positive effect of purchasing (Kim et al., 2008). Students who trust in a higher education institution will have a positive impact on enrolment, retention, quality perception and sharing positive things through word-of-mouth, involved as alumnae with PHE and can reduce the sensitivity to tuition increase (Ghosh et al., 2001). Trust is one of the factors affecting the university's commitment (Helen and Ho, 2011; Rojas-Méndez et al., 2009). Trust is an important consideration. People are often confronted with uncertainty. Consumers often pass the standardised learning hierarchy in the thinking process, where there are two factors, i.e., uncertainty and the complex nature of the situation (Moriuchi and Takahashi, 2016).

Students' trust is first proposed by Ghosh et al. (2001). They argue that students' confidence is a long-term solution that higher educations have gained in highly competitive situations. According to Ghosh et al. (2001), students' trusts is the extent to which students are willing to rely on or confidence in higher education by taking appropriate and profitable steps and helping them achieve learning and careers. The factors that make up trust are comprised of three dimensions, i.e., ability, virtue and integrity (McKnight et al., 2002; Schoorman et al., 2007). Good public trust can increase

loyalty (Aritonang, 2014; Aygoren and Yilmaz, 2013; Brennan and Hennenberg, 2008; Kim et al., 2008; Taecharunroj, 2014).

### *2.3 Student satisfaction*

Satisfaction in the context of higher education institutions is not a stand-alone concept (Jahanshahi et al., 2011). Several factors that determine the quality of higher education are accessibility, attention, availability and communication (Douglas et al., 2014). The concept of students' satisfaction is complex and multidimensional in the context of higher education. Recent research confirms that there are students who can attract new students to provide testimonials through word-of-mouth to acquaintances and friends and even return to their institutions for further study (Helgesen and Nettet, 2007a).

Students' satisfaction is a good feeling that a person experiences after comparing the performance of a product or service with their expectations. These expectations are made up of past experiences and suggestions from friends or colleagues through promises provided by the marketers along with the competitors (Kotler and Armstrong, 2016; Kotler and Keller, 2012). Students are partners in college. Thus, students need to be served in a valuable and satisfying way. Classroom management is a valuable issue for students. Therefore, the characteristics of lecturers tend to be the main determinants of students' satisfaction in higher education (Gruber et al., 2012). High student satisfaction experienced by a student can increase the loyalty (Alves and Raposo, 2007; de Macedo Bergamo et al., 2012; Helgesen and Nettet, 2007a) and affects the students' confidence (Aritonang, 2014; Rojas-Méndez et al., 2009).

### *2.4 Higher education image*

Perception is a process whereby the individuals choose, organise and interpret stimuli into something meaningful (Schiffman et al., 2012). Several studies have found that the image and reputation of higher education institutions significantly influence retention and loyalty (Helgesen and Nettet, 2007a; Hemsley-Brown et al., 2016; Nguyen and LeBlanc, 2001). The image always appears as one of the variables that directly affect satisfaction and also has a significant influence on loyalty. Higher education institutions must maintain or develop a different image to create competitive advantage in an increasingly competitive market (Alves and Raposo, 2010; Gunarto et al., 2016b). A review of the literature found that the image of the university had a direct and positive impact on students' loyalty (Brown and Mazzarol, 2006). It is also known that the effect of students' satisfaction significantly mediates the relationship between university image and students' loyalty (Douglas et al., 2014). The image of higher education is the overall evaluation of universities as measured by four indicators, i.e., the overall opinion of the higher education, the opinion of the higher education's contribution to society, the preference for the higher education as a whole and the higher education reputation.

Some scholars say that a good higher education image has a major influence on student loyalty (Andreassen and Lindestad, 1998); can increase student satisfaction (Aritonang, 2014; Brown and Mazzarol, 2006; Helgesen and Nettet, 2007a; Hemsley-Brown and Oplatka, 2006); and affect student confidence (Fianto et al., 2014).

### 2.5 Conceptual framework

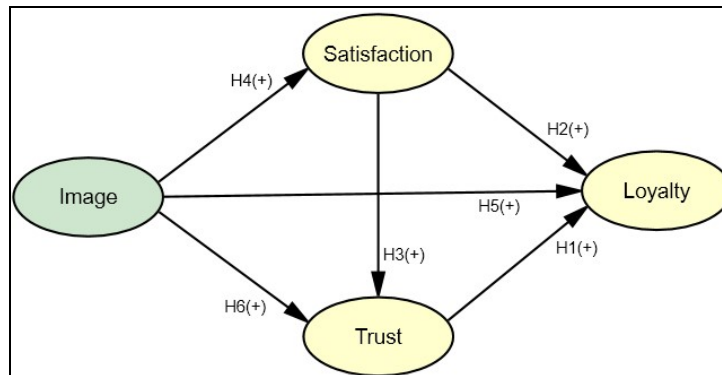
The conceptual framework of this study is shown in Figure 1.

### 2.6 Research hypothesis

The hypotheses of this research are:

- Hypothesis 1 Students' trust has a positive effect on students' loyalty.
- Hypothesis 2 Students' satisfaction has a positive effect on students' loyalty.
- Hypothesis 3 Students' satisfaction has a positive effect on students trust.
- Hypothesis 4 The image of higher education has a positive effect on students' loyalty.
- Hypothesis 5 The image of higher education has a positive effect on students' satisfaction.
- Hypothesis 6 The image of higher education has a positive effect on students' trust.

**Figure 1** Conceptual framework (see online version for colours)



## 3 Research methodology

The design of this study is descriptive which is designed to explain the variables studied and explanative to prove the influence between variables through testing the research hypothesis. The survey method used with the research instrument is a questionnaire. The total population of PHE in Bandung is 112 PHE consisting in various forms. There are 28 academies, two institutes, 11 polytechnics, 50 high schools and 21 universities. The sample of this study is 27 PHE with cluster random sampling technique that can represent all forms of PHE. Each PHE samples are then taken by ten students each and given a questionnaire, but only 225 respondents could be processed in this study, of which 45 questionnaires' are not considered as these are incompletely filled.

The research instrument that contains the variables of higher education, students' confidence, students' satisfaction and students' loyalty is adapted from Giner and Rillo (2016). Respondents are asked to indicate the level of agreement on statements related to

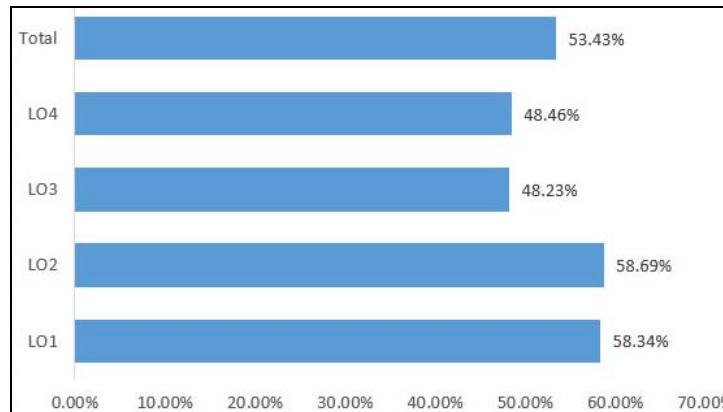
observed variables on a seven-point Likert scale (i.e., from a scale of one 'strongly disagree' to seven 'strongly agree'). The process of data analysis to prove the influence between variables using the structural equation modelling (SEM) approach, which is a combination of factor analysis, regression analysis and path analysis (Gunarto, 2013a; Hair et al., 2014). The data processing tool is AMOS version 22.0.

## 4 Findings and discussions

### 4.1 Descriptive analysis

Descriptively, the perceptions answer of 225 respondents on each variable looks like in Figure 2.

**Figure 2** Respondents' perceptions on student loyalty (see online version for colours)



**Figure 3** Respondents' perceptions on students trust (see online version for colours)

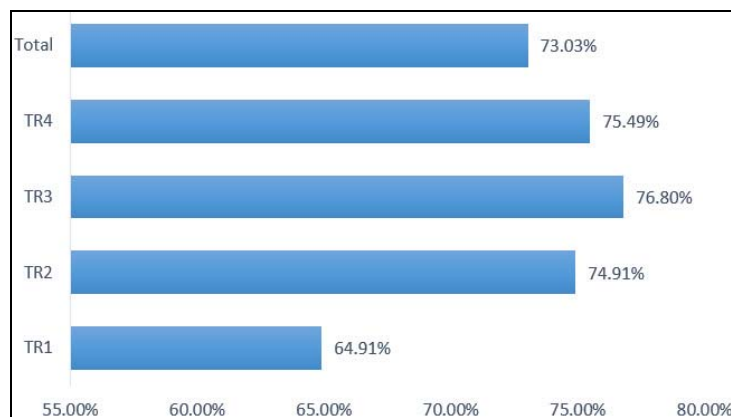
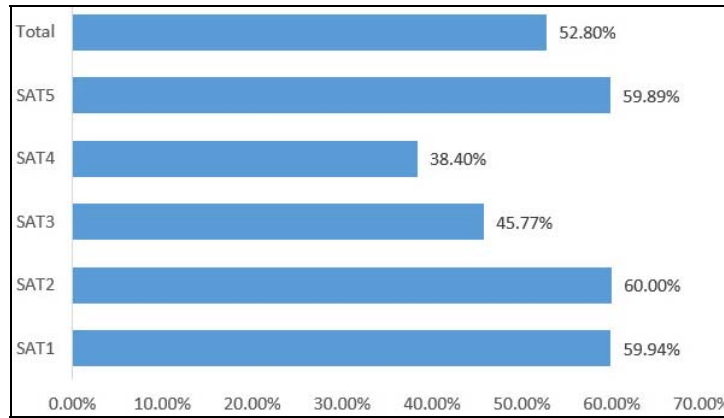


Figure 2 shows the average level of respondents' perceptions of the students' loyalty variable that reaches 53.43%. This means that the perception of respondents to students' loyalty to PHE is still relatively moderate. The lowest score occurs in return for higher education indicator (LO3) and willing to sponsor (LO4). This condition occurs because most of the PHE is not their first choice.

Figure 3 shows the respondents' perceptions of the level of students' trust that reaches 73.03%. That value indicates the respondent's trust to the PHE is considerably high. This occurs since the Indonesian Government regulation and supervision standard to the higher education system is noticeably tight, making the level of students' trust to PHE is relatively high.

Figure 4 shows the respondents' perceptions of students' satisfaction that reaches 52.80%. This value indicates that the satisfaction of respondents to PHE is still low. Although students have the valuable experience during studying at PHE, the characteristics of lecturers in PHE are still considered less satisfactory.

**Figure 4** Respondents' perceptions on students' satisfaction (see online version for colours)



**Figure 5** Respondents' perceptions of the image of higher education institution (see online version for colours)

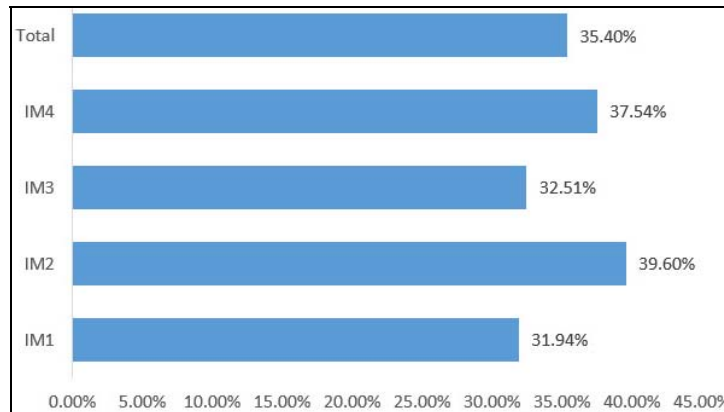




Figure 5 shows the perception of respondents to high education image which is around 35.40%. This value shows the image of respondents to PHE is substantially low. This perception is in accordance with the condition of the field study that the students have a better image to the public higher education than to the PHE. Students feel very proud if they can study at the public higher education than they in PHE. Hence, it can be inferred that most of the students in the PHE are students who are failed to enter the public higher education. To improve the image of higher education, it is necessary to take various strategic steps such as improving rank according to university's standard (Gunarto et al., 2016a) and to improve various achievements and promotions which can produce a good image in the community.

#### 4.2 Measurement model

Data analysis technique is done by SEM with AMOS 22.0 software. There are two stages of analysis performed, i.e., the measurement model and the structural model (Gunarto, 2013a; Hair et al., 2014). The measurement model is done by confirmatory factor analysis (CFA) to test the validity and reliability of indicators in each variable. The results of the model testing measures are shown in Figure 6.

**Figure 6** Measurement model estimation results (see online version for colours)

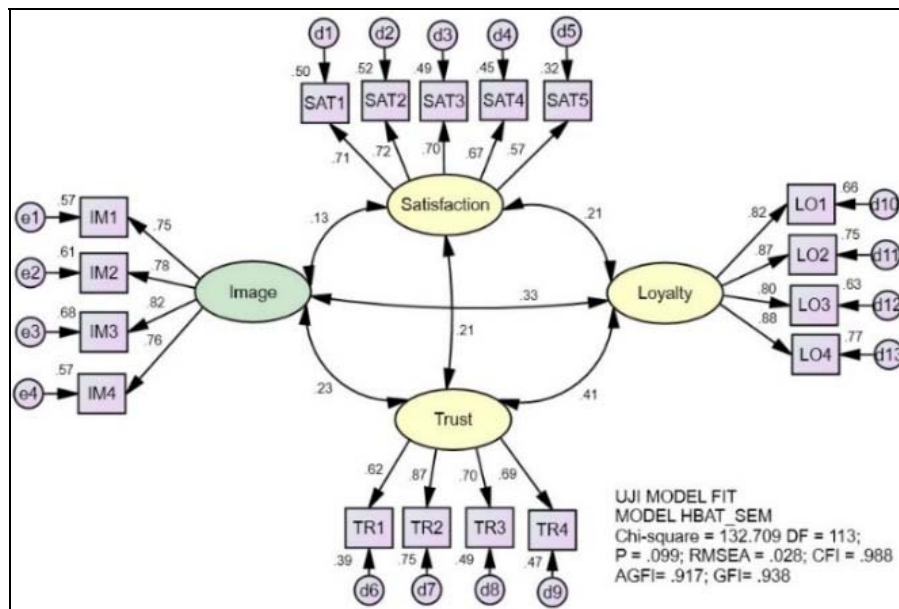


Figure 6 shows the four latent variables with their indicators. All indicators are valid because each has a loading factor of more than 0.5 (Hair et al., 2014). The validity and reliability of each latent variable are shown in Table 1.

Table 1 shows that all indicators have a loading factor greater than 0.5, meaning, all indicators are valid and can form variables (Hair et al., 2014; Malhotra, 2010). The four variables formed from each indicator are also reliable because they have CR > 0.7

and  $AVE \geq 0.5$  (Gunarto, 2013a). AVE value indicates how much latent variable can explain the variation of data. That is to say, the higher AVE value, the better is the variable in explaining the variation of existing data. Based on the value of CR and AVE, it can be concluded that all indicators on each variable are valid and reliable, meaning it can measure the variable in accordance with what will be well.

**Table 1** Values of loading factor, construct reliability and variance extraction on each latent variable

<i>Indicator</i>	<i>Loyalty</i>	<i>Trust</i>	<i>Satisfaction</i>	<i>Image</i>	<i>Conclusion</i>
Word-of-mouth (LO1)	0.815				Valid
Recommend to friends and family (LO2)	0.865				Valid
Intend to continue study at alma mater (LO3)	0.795				Valid
Willing to become a sponsor (LO4)	0.875				Valid
Integrity staff of PHE (TR1)		0.624			Valid
PHE attention to students (TR2)		0.867			Valid
The quality of PHE education (TR3)		0.700			Valid
PHE services meet the expectations of students (TR4)		0.685			Valid
Happy with the services offered by PHE (SAT1)			0.710		Valid
Service of PHE meet my expectations (SAT2)			0.720		Valid
Glad to be a student at PHE (SAT3)			0.701		Valid
Satisfied compared with other PHE (SAT4)			0.671		Valid
Satisfied with all the services of PHE (SAT5)			0.567		Valid
My PHE have a good image in the minds of students (IM1)				0.755	Valid
My PHE is better than other institutions (IM2)				0.779	Valid
My PHE have a good teaching program (IM3)				0.823	Valid
My PHE have a good reputation (IM4)				0.757	Valid
<i>Construct reliability (CR)</i>	0.904	0.813	0.807	0.860	<i>Reliable</i>
<i>Average variance extract (AVE)</i>	0.702	0.525	0.570	0.608	

The measurement model corresponds to the values shown in the goodness of fit (GOF) statistics in Table 2.

**Table 2** Values of statistics GOF measurement model.

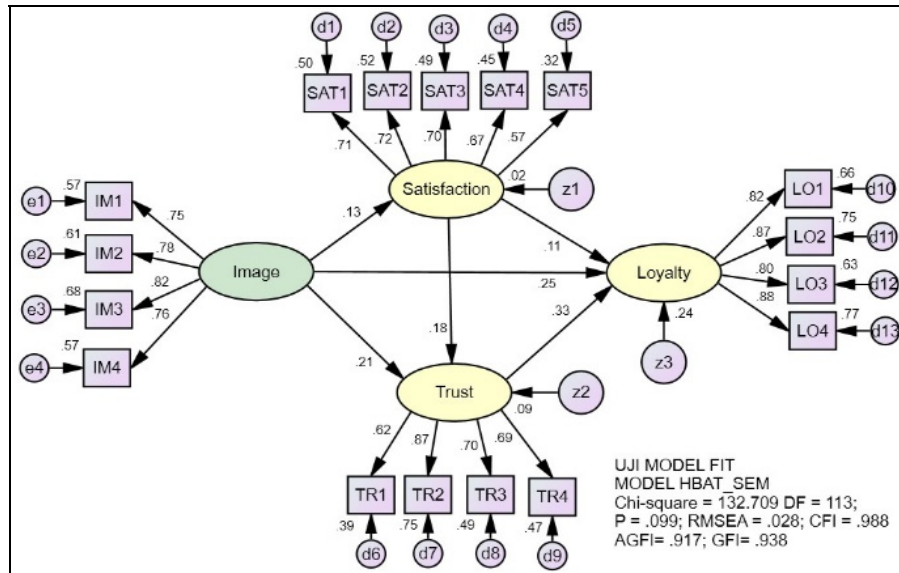
<i>No.</i>	<i>Criteria GOF</i>	<i>Value limit</i>	<i>Result</i>	<i>Conclusion</i>
1	p-value of $X^2 = 132,709$ df = 113	$\geq 0.05$	0.099	Fit
2	GFI	$\geq 0.90$	0.938	Fit
3	AGFI	$\geq 0.90$	0.917	Fit
4	CFI	$\geq 0.90$	0.988	Fit
5	RMSEA	$\leq 0.08$	0.028	Fit

Test results on the measurement model show that all criteria pertaining to the GOF are fulfilled. This means the measurement model that is formed from each indicator has been in accordance with the existing data. According to Malhotra (2010), it is needed at least one good measure (GFI, AGFI), a measure of absolute bad [chi-square, root means squared error of approximation (RMSEA)] and a comparative measure (CFI). The criterion of GOF is not sole, meaning that any criterion which fit can be stated that the fit model is obtained (Gunarto, 2013a; Hair et al., 2014). Further, the RMSEA criterion is more widely used to see the suitability of a model (Hoyle, 2012). Based on the results in Table 2, it can be inferred that the model is fit and can form a structural model.

4.3 Structural model

After the measurement model has been obtained, the second step in data analysis is to create a structural model used to test the hypothesis in this study. The structural model is formed based on a measurement model that has statistically fulfilled the fit model test and obtained the structural modelling results with the AMOS program as can be seen in Figure 7.

Figure 7 Estimation of structural model results (see online version for colours)



In Figure 7, it can be inferred that there are three sub-structures of the model, i.e., sub-model of satisfaction (coefficient of determination (R<sup>2</sup>) = 0.016), sub-structure of trust model (coefficient of determination (R<sup>2</sup>) = 0.085) and sub-loyalty model structure (coefficient of determination (R<sup>2</sup>) = 0.237). This result denotes that the strength of the model is still relatively low; hence, the model cannot be used as a prediction model.

The results of hypothesis testing in each structural relationship are shown in Table 3.

Table 3 shows that four hypotheses are found to be significant. The first hypothesis (H1) has regression coefficient value of 0.360 (standardised regression = 0.327) with

standard error 0.089 and p-value  $0.000 < 0.05$ . This indicates that students' confidence has a positive and significant effect on students' loyalty. Thus, H1 is accepted.

**Table 3** Results of testing the structural models

Hypothesis	Model (1)	Estimate	SE	CR	P-value	Information
H1	Loyalty ← Trust	0.360	0.089	4.063	***	Significant
H2	Loyalty ← Satisfaction	0.092	0.062	1.480	0.139	Not significant
H3	Trust ← Satisfaction	0.139	0.062	2.248	0.025	Significant
H4	Satisfaction ← Image	0.128	0.082	1.567	0.117	Not significant
H5	Loyalty ← Image	0.211	0.063	3.349	***	Significant
H6	Trust ← Image	0.162	0.062	2.590	0.010	Significant

Notes: SE (standard error); CR (critical ratio = t-statistic); \*\*\*mean that the p-value is less than 0.001.

The second hypothesis (H2) has regression coefficient value of 0.092 (standardised regression = 0.109) with standard error 0.062 and p-value  $0.139 > 0.05$ . This score particularly indicates that students' satisfaction has no significant effect on students' loyalty; therefore H2 is not accepted.

The third hypothesis (H3) obtains regression coefficient value of 0.139 (standardised regression = 0.182) with standard error 0.062 and p-value  $0.025 < 0.05$ . This indicates that students' satisfaction has a positive and significant effect on students' belief. Therefore, H3 is accepted.

Fourth hypothesis (H4) denotes regression coefficient value of 0.128 (standardised regression = 0.166) with standard error 0.082 and p-value  $0.117 > 0.05$ . This indicates that the image of higher education has no significant effect on students' satisfaction. Therefore, H4 is not accepted.

The fifth hypothesis (H5) shows regression coefficient value of 0.211 (standardised regression = 0.245) with a standard error of 0.063 and p-value  $0.000 < 0.05$ . This indicates that high image has a positive and significant effect on students' loyalty; accordingly, H5 is accepted.

Hypothesis sixth (H6) shows that the regression coefficient value of 0.162 (standardised regression = 0.207) with standard error 0.062 and p-value  $0.010 < 0.05$  indicates that the image of higher education has a positive and significant effect on students' beliefs. Therefore, H6 is accepted.

**Table 4** Results of standardised direct and indirect effects

Variable	Standardised direct effects			Standardised indirect effects	
	Image	Satisfaction	Trust	Image	Satisfaction
Satisfaction	0.126ns				
Trust	0.207**)	0.182*)		0.023	
Loyalty	0.245**)	0.109ns	0.327**)	0.089	0.060

Note: \*\*Significant  $< 0.001$ , \*significant  $< 0.05$  and ns = not significant.

The role of mediating variable is described in Table 4. It can be inferred from Table 4 that higher education image has no effect on students' satisfaction, but has direct influence on students' trust and loyalty according to previous research (Akbar, 2013;

Aritonang, 2014; Brown and Mazzarol, 2006; Helgesen and Nettet, 2007; Hemsley-Brown and Oplatka, 2006; Taecharungroj, 2014). Students' satisfaction, separately, affects students' trust which is in line with the previous findings (Rojas-Méndez et al., 2009). Students' satisfaction, however, does not affect students' loyalty; this result is slightly different with the findings from Aritonang (2014).

It can also be concluded that students' beliefs influence the loyalty of the students. This result is in line with several studies that have been done (Aritonang, 2014; Aygoren and Yilmaz, 2013; Brennan and Hennenberg, 2008; Kim et al., 2008; Taecharungroj, 2014).

The magnitude of the direct influence of the university's image on the students' belief is 0.207, while the main influence is not directly the image of the higher education toward the students' trust through students' satisfaction 0.023, which is smaller than the direct influence (Table 4). These results indicate that student satisfaction is not a good intervening variable for the higher education image of students' belief. The magnitude of the direct influence of higher education image on loyalty is 0.245, but the magnitude of the direct influence of university image on loyalty through students' trust is 0.089 (less than the direct influence). This means students' belief is not a good intervening variable for the image of student loyalty.

Student satisfaction does not affect the loyalty, but the direct influence on the trust and confidence of students affect the loyalty of students, which makes trust a good intervening variable for satisfaction with students' loyalty. This shows that in order to build students' loyalty, not only improving the image of higher education and students' satisfaction are improved, but the students' belief also becomes an essential aspect which mediates the satisfaction of loyalty. The most dominant factor affecting student loyalty is found to be students' confidence. This is in line with previous findings carried out by Ghosh et al. (2001) which denoted that students' beliefs are the long-term solution that higher education institutions must obtain in highly competitive situations.

Students' confidence in PHE becomes very important and can be built by improving the image of the higher education institution. This is primarily because positive image has a significant effect on students' trust (Fianto et al., 2014; Taecharungroj, 2014). Higher educational institutions that have a good image also have a positive and significant impact on students' loyalty. That is to say, the growing PHE image in the community will increase students' loyalty. These results are consistent with those examined by Andreassen and Lindestad (1998), Aritonang (2014), Brown and Mazzarol (2006), Gunarto et al. (2016b); Helgesen and Nettet (2007a), Hemsley-Brown and Oplatka (2006) and Taecharungroj (2014).

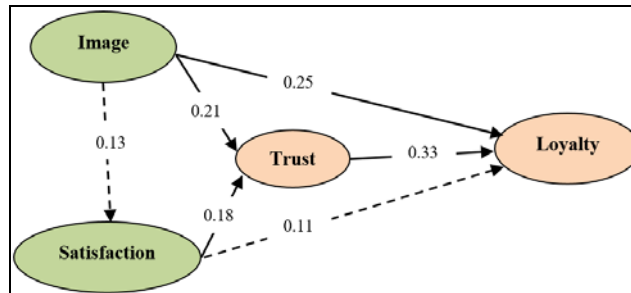
The finding of this research model is shown in Figure 8.

Managerial implications to confront an increasingly competitive higher education, leveraging the quality of education and the level of trust in the community. Increasing trust in PHE institution can be made by fulfilling students' satisfaction through providing excellent service and fulfilling various existing regulations. Improving the image of higher education can be done through gaining a variety of achievements and reputation at both regional and global level.

It can also be seen from Figure 8 that the students' loyalty model is higher than trust and image of the higher education institution. In this study, it is found that the image of the higher education institution can build trust and loyalty, but not students' satisfaction. The increase in students' loyalty will benefit PHE in obtaining prospective students since

it is likely that students or alumni will share and invite others to join and study at their former university.

**Figure 8** Findings of research models (see online version for colours)



## 5 Conclusions and suggestions

Perception of respondents to the trust of PHE students is relatively high. However, the satisfaction and loyalty of students' perceived are relatively moderate and PHE image is perceived very low. The image of the higher education institution influences both directly and indirectly on students' loyalty through students' belief. Students' satisfaction only has an indirect effect on students' loyalty to students' trust. The most dominant factor affecting students' loyalty is the students' belief, whereas the students' trust is also a variable which mediates students' satisfaction. The strategy of building students' loyalty becomes very important in facing the intense competition of PHE by improving the PHE image or reputation as well as the students' satisfaction.

This study is limited due to the small data gathered, i.e., the survey took place solely in Bandung area and only the form of university, where PHE characteristics in Indonesia, especially outside Java has not been accommodated. Future research can attempt to analyse broader characteristics of data that can reflect the Indonesian's PHE in general. Future research is also suggested to include various factors that can build students' loyalty in PHE.

## References

- Akbar, M.M. (2013) 'Three competing models on customer loyalty in the context of mobile subscribers', *International Journal of Marketing Studies*, Vol. 5, No. 4, pp.42–58 [online] <https://doi.org/10.5539/ijms.v5n4p42>.
- Alma, B. (1992) *Manajemen Pemasaran dan Pemasaran Jasa*, Alfabeta, Bandung.
- Alves, H. and Raposo, M. (2007) 'Conceptual model of student satisfaction in higher education', *Total Quality Management*, Vol. 18, No. 5, pp.571–588 [online] <https://doi.org/10.1080/14783360601074315>.
- Alves, H. and Raposo, M. (2010) 'The influence of university image on student behaviour', *International Journal of Educational Management*, Vol. 24, No. 1, pp.73–85 [online] <https://doi.org/10.1108/09513541011013060>.

- Andreassen, T.W. and Lindestad, B. (1998) 'The effect of corporate image in the formation of customer loyalty', *Journal of Service Research*, Vol. 1, No. 1, pp.82–92 [online] <https://doi.org/10.1177/109467059800100107>.
- Aritonang, L.R. (2014) 'Student loyalty modeling', *Trziste*, Vol. 26, No. 1, pp.77–91.
- Aygoren, O. and Yilmaz, C. (2013) 'Understanding choice behavior in political marketing context: a favorable voter responses model', *Developments in Marketing Science: Proceeding of the Academy of Marketing Science*, pp.274–281 [online] [https://doi.org/10.1007/978-3-319-10951-0\\_98](https://doi.org/10.1007/978-3-319-10951-0_98).
- Brennan, R. and Hennenberg, S. (2008) 'Does political marketing need the concept of customer value?', *Marketing Intelligence Planning*, Vol. 26, No. 6, pp.559–572 [online] <https://doi.org/10.1108/02634500810902820>.
- Brown, R.M. and Mazzarol, T. (2006) 'Factors driving student satisfaction and loyalty in Australian universities: the importance of institutional image', *20th Annual Australia & New Zeland Academy of Management (ANZAM) Conference*, pp.1–12.
- Chen, Y-C. (2016) 'The drive behind international student loyalty in higher-educational institutions: a structural equation model', *The Asia-Pacific Education Researcher*, Vol. 25, No. 2, pp.315–323 [online] <https://doi.org/10.1007/s40299-015-0264-z>.
- de Macedo Bergamo, F.V., Giuliani, A.C., de Camargo, S.H.C.R.V., Zambaldi, F. and Ponchio, M.C. (2012) 'Student loyalty based on relationship quality: an analysis on higher education institutions', *Brazilian Business Review*, Vol. 9, No. 11, pp.26–46.
- Dick, A.S. and Basu, K. (1994) 'Customer loyalty: toward an integrated conceptual framework', *Journal of the Academy of Marketing Science*, Vol. 22, No. 2, pp.99–113 [online] <https://doi.org/10.1177/0092070394222001>.
- Douglas, J.A., Douglas, A., McClelland, R.J. and Davies, J. (2014) 'Understanding student satisfaction and dissatisfaction: an interpretive study in the UK higher education context', *Studies in Higher Education*, Vol. 40, No. 2, pp.329–349 [online] <https://doi.org/10.1080/03075079.2013.842217>.
- Eliwa, R.A. (2006) *A Study of Customer Loyalty and the Image of the Fine Dining Restaurant*, Oklahoma State University [online] <http://search.proquest.com/docview/304941181>.
- Evanschitzky, H. and Wunderlich, M. (2006) 'An examination of moderator effects in the four-stage loyalty model', *Journal of Service Research*, Vol. 8, No. 4, pp.330–345 [online] <https://doi.org/10.1177/1094670506286325>.
- Fianto, A.Y.A., Hadiwidjojo, D., Aisjiah, S. and Solimun (2014) 'The influence of brand image on purchase behaviour through brand trust', *Business Management and Strategy*, Vol. 5, No. 2, p.58 [online] <https://doi.org/10.5296/bms.v5i2.6003>.
- Ghosh, A.K., Whipple, T.W. and Bryan, G.A. (2001) 'Student trust and its antecedents in higher education', *The Journal of Higher Education*, Vol. 72, No. 3, pp.322–340 [online] <https://doi.org/10.2307/2649334>.
- Giner, G.R. and Rillo, A.P. (2016) 'Structural equation modeling of co-creation and its influence on the student's satisfaction and loyalty towards university', *Journal of Computational and Applied Mathematics*, Vol. 291, pp.257–263 [online] <https://doi.org/10.1016/j.cam.2015.02.044>.
- Gruber, T., Lowrie, A., Brodowsky, G.H., Reppel, A.E., Voss, R. and Chowdhury, I.N. (2012) 'Investigating the influence of professor characteristics on student satisfaction and dissatisfaction a comparative study', *Journal of Marketing Education*, Vol. 34, No. 2, pp.165–178 [online] <https://doi.org/10.1177/0273475312450385>.
- Gunarto, M. (2013a) *Membangun Model Persamaan Struktural (SEM) dengan Program Lisrel*, Tunas Gemilang Press, Palembang.
- Gunarto, M. (2013b) 'Strategi Membangun Kepuasan Konsumen dalam Rangka Membangun Loyalitas Pengunjung Objek Wisata Kota Pagaram', in *Seminar Nasional: Green Tourism and Economic Development*.

- Gunarto, M., Nugraha, D.Y. and Gaffar, V. (2016a) 'Analysis of perception and public preference on reputation of higher-education ranking agencies', in *Advances in Economics, Business and Management Research, 1st Global Conference on Business, Management and Entrepreneurship (GCBME-16)*, Vol. 15, pp.364–370, Atlantis Press, Paris, France [online] <https://doi.org/10.2991/gcbme-16.2016.65>.
- Gunarto, M., Wibowo, L.A. and Hurriyati, R. (2016b) 'Creating students loyalty model in private higher education', in *Advances in Economics, Business and Management Research, 1st Global Conference on Business, Management and Entrepreneurship (GCBME-16)*, Vol. 15, pp.354–363, Atlantis Press, Paris, France [online] <https://doi.org/10.2991/gcbme-16.2016.64>.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2014) *Multivariate Data Analysis*, 7th ed., Pearson New International Edition, Pearson Education Limited, England [online] <https://doi.org/10.1038/259433b0>.
- Helen, W. and Ho, W. (2011) 'Building relationship between education institutions and students: student loyalty in self-financed tertiary education', *IBIMA Business Review Journal*, Vol. 2011, pp.1–22 [online] <https://doi.org/10.5171/2011.913652>.
- Helgesen, Ø. and Nettet, E. (2007a) 'Images, satisfaction and antecedents: drivers of student loyalty? A case study of a Norwegian University College', *Corporate Reputation Review*, 1 No. 101, pp.38–59 [online] <https://doi.org/10.1057/palgrave.crr.1550037>.
- Helgesen, Ø. and Nettet, E. (2007b) 'What accounts for students' loyalty? Some field study evidence', *International Journal of Educational Management*, Vol. 21, No. 2, pp.126–143 [online] <https://doi.org/10.1108/09513540710729926>.
- Hemsley-Brown, J. and Oplatka, I. (2006) 'Universities in a competitive global marketplace: a systematic review of the literature on higher education marketing', *International Journal of Public Sector Management*, Vol. 19, No. 4, pp.316–338 [online] <https://doi.org/10.1108/09513550610669176>.
- Hemsley-Brown, J., Melewar, T.C., Nguyen, B. and Wilson, E.J. (2016) 'Exploring brand identity, meaning, image, and reputation (BIMIR) in higher education: a special section', *Journal of Business Research*, Vol. 69, No. 8, pp.3019–3022 [online] <https://doi.org/10.1016/j.jbusres.2016.01.016>.
- Hennig-Thurau, T., Langer, M.F. and Hansen, U. (2001) 'Modeling and managing student loyalty: an approach based on the concept of relationship quality', *Journal of Service Research*, Vol. 3, No. 4, pp.331–344 [online] <https://doi.org/10.1177/109467050134006>.
- Heo, C.Y. and Lee, S. (2016) 'Examination of student loyalty in tourism and hospitality programs: a comparison between the United States and Hong Kong', *Journal of Hospitality, Leisure, Sport & Tourism Education*, Vol. 18, pp.69–80 [online] <https://doi.org/10.1016/j.jhlste.2016.03.003>.
- Hoyle, R.H. (2012) *Handbook of Structural Equation Modeling*, The Guilford Press, New York.
- Hurriyati, R. (2015) *Bauran Pemasaran dan Loyalitas Konsumen*, Alfabeta, Bandung.
- Jahanshahi, A.A., Gashti, M.A.H., Mirdamadi, S.A., Nawaser, K. and Khaksar, S.M.S. (2011) 'Study the effects of customer service and product quality on customer satisfaction and loyalty', *International Journal of Humanities and Social Science*, Vol. 1, No. 7, pp.253–260 [online] <https://doi.org/10.1057/palgrave.fsm.4760085>.
- Kim, D.J., Ferrin, D.L. and Rao, H.R. (2008) 'A trust-based consumer decision-making model in electronic commerce: the role of trust, perceived risk, and their antecedents', *Decision Support Systems*, Vol. 44, No. 2, pp.544–564 [online] <https://doi.org/10.1016/j.dss.2007.07.001>.
- Kotler, P. and Armstrong, G. (2016) *Principles of Marketing*, 16th ed., Pearson Education Limited, England [online] <https://doi.org/10.2307/1250103>.
- Kotler, P. and Keller, K.L. (2012) *Marketing Management. Organization*, 15th ed., Vol. 22, Prentice Hall, New Jersey [online] <https://doi.org/10.1080/08911760903022556>.
- Kunanusorn, A. and Puttawong, D. (2015) 'The mediating effect of satisfaction on student loyalty to Higher Education Institution', *European Scientific Journal*, October, Vol. 1, pp.449–464.



- Malhotra, N.K. (2010) *Marketing Research: An Applied Orientation*, 6th ed., Prentice Hall, New Jersey.
- McKnight, D.H., Choudhury, V. and Kacmar, C. (2002) 'The impact of initial consumer trust on intentions to transact with a web site: a trust building model', *Journal of Strategic Information Systems*, Vol. 11, Nos. 3–4, pp.297–323 [online] [https://doi.org/10.1016/S0963-8687\(02\)00020-3](https://doi.org/10.1016/S0963-8687(02)00020-3).
- Moriuchi, E. and Takahashi, I. (2016) 'Satisfaction trust and loyalty of repeat online consumer within the Japanese online supermarket trade', *Australasian Marketing Journal (AMJ)* [online] <https://doi.org/10.1016/j.ausmj.2016.02.006>.
- Nguyen, N. and LeBlanc, G. (2001) 'Image and reputation of higher education institutions in students' retention decisions', *The International Journal of Educational Management*, Vol. 15, No. 6, pp.303–311.
- Peter, J.P. and Olson, J.C. (2010) *Consumer Behavior & Marketing Strategy*, 9th ed., McGraw-Hill/Irwin, New York.
- Pham, H-H. and Lai, S.L. (2016) 'Higher education as an extended duration service: an investigation of the determinants of Vietnamese overseas student loyalty', *Journal of Studies in International Education*, Vol. 20, No. 5, pp.454–471 [online] <https://doi.org/10.1177/1028315316662978>.
- Rofiq, A. (2007) *Pengaruh Dimensi Kepercayaan (Trust) Terhadap Partisipasi Pelanggan E-Commerce*, Universitas Brawijaya Malang.
- Rojas-Méndez, J.I., Vasquez-Parraga, A.Z., Kara, A. and Cerda-Urrutia, A. (2009) 'Determinants of student loyalty in higher education: a tested relationship approach in Latin America', *Latin American Business Review*, Vol. 10, No. 1, pp.21–39 [online] <https://doi.org/10.1080/10978520903022089>.
- Schiffman, L.G., Kanuk, L.L. and Hansen, H. (2012) *Consumer Behaviour: a European Outlook*, 2nd ed., Pearson Education Limited, New Jersey.
- Schoorman, F.D., Mayer, R.C., Davis, J.H., Schoorman, F.D., Mayer, R.C. and Davis, H. (2007) 'An integrative model of organizational trust – past, present, and future', *Academy of Management Review*, Vol. 32, No. 2, pp.344–354 [online] <https://doi.org/10.5465/AMR.2007.24348410>.
- Taecharungroj, V. (2014) 'University student loyalty model: structural equation modelling of student loyalty in autonomous, state, transformed, and private universities in Bangkok', *Scholar*, Vol. 6, No. 1, pp.66–77 [online] <http://www.assumptionjournal.au.edu/index.php/Scholar/article/view/56>.
- Thomas, S. (2011) 'What drives student loyalty in universities: an empirical model from India', *International Business Research*, Vol. 4, No. 2, pp.183–192 [online] <https://doi.org/10.5539/ibr.v4n2p183>.
- Tinto, V. (1988) 'Stages of student departure', *The Journal of Higher Education*, Vol. 59, No. 4, pp.438–455.
- Tobari (2015) 'Strategi Perguruan Tinggi Swasta Menghadapi Persaingan', *Jurnal Media Wahana Ekonomika*, Vol. 12, No. 3, pp.61–68.
- Verhoef, P.C., Franses, P.H. and Hoekstra, J.C. (2002) 'The effect of relational constructs on customer referrals and number of services purchased from a multiservice provider: does age of relationship matter?', *Journal of the Academy of Marketing Science*, Vol. 30, No. 3, pp.202–216 [online] <https://doi.org/10.1177/0092070302303002>.
- Wahyuningsih, S.E. (2007) 'Tingkat loyalitas mahasiswa atas jasa pendidikan di perguruan tinggi', *Lembaran Ilmu Kependidikan*, Vol. 36, No. 2, pp.131–137.
- Yu, G.B. and Kim, J.H. (2008) 'Testing the mediating effect of the quality of college life in the student satisfaction and student loyalty relationship', *Applied Research in Quality of Life*, Vol. 3, No. 1, pp.1–21 [online] <https://doi.org/10.1007/s11482-008-9044-8>.