THE IMPACT OF IMAGE AND SATISFACTION ON LOYALTY:
THE CASE OF INDONESIAN OPEN UNIVERSITY

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Abstract: The increase in the number of both public and private higher education institutions (HEI) in Indonesia has resulted in the industry becoming very competitive. The situation calls for HEIs to focus on establishing a strong institution image and providing student satisfaction to secure their loyalty. A conceptual framework is proposed that investigates the impact of institution image and student satisfaction on student loyalty. Survey was employed, and respondents were from the students of Indonesian Open University. There were 300 usable questionnaires to analyze descriptive statistics, reliability, validity, and SEM model. The research found that institution image and student satisfaction significantly affects student loyalty and that image exerts a stronger influence on loyalty than satisfaction. Therefore, Indonesian Open University as a service firm has to focus on these factors in order to build a long-term and mutually profitability relationship with a student and create loyalty as competitive advantages.

Keywords: *image, satisfaction, loyalty, SEM*

Introduction

A tremendous growth has been observed in the Indonesia higher education institutions (HEI). Especially the growth in the number of private HEI is reflected by the increase in the numbers of institutions established from year 2009 to 2013. Based on Direktori Perguruan Tinggi Direktorat Pendidikan Tinggi that in 2009 there were 82 public universities and morethan 1.300 private universities. However, in 2013 the number of public university increased to 85 and private universities increased to morethan 3.000. It can be seen that there is a remarkable growth in the number of private HEI within the period compared to public HEI. The entrance of new players into the industry created competitive situation as contended by Michael Porter (Wheelen and Hunger, 2008). The competitive situation within the industry is fuelled by the exististence of foreign universities in the country, through either the setting up of branch campuses or the offering of franchising programmes to local private universities. Thus, Indonesian students could earn degrees from foreign universities without going abroad and it costs less compared to studying abroad.

On one hand, the growth provides more opportunities for potential candidate to continue their studies at higher levels. Students have more choices to make in terms of which HEI to pursue their studies and creating a situation where they have more bargaining power. And on the other hand, as a part of HEI industry, Indonesian Open University (Universitas Terbuka = UT) embarked on designing strategic promotional efforts, for example advertising their academic programmes through several printed and electronic media and participating in education exhibitions or fairs. UT were given a assignment to increase the number undergraduate student enrolment with a tagline making higher education open to all. This task creates a challenge to UT in term of attracting potential candidates to do undergraduate studies. The task of increasing undergraduate students' enrolment need to be addressed strategically in order to ensure long-term successfull performance of the institution.

In a competitive market, perhaps looking at the relationships amongst institution image, students' satisfaction, and students' loyalty would provide some useful insights to the management of HEI in terms of meeting the assignment to increase undergraduate students' enrolment. Loyal customers can bring enormous benefits to company. They allow for a continuous stream of profit, reduce marketing and operating costs, increase referral, and are immune to competitors' promotion efforts (Reichheld and Teal, 1996). Moreover, the expenses of acquiring a new customer are much higher than those of retaining an existing one (Korte, 1995 dalam Brunner et al., 2008). Thus, customer loyalty cannot be overemphasized in today's, highly competitive business world (Reinartz and Kumar, 2000).

There are many antecedents of loyalty. One antecedent of loyalty is image. Ostrowski et al. (1993) found a significant relationship between passengers' image of an airline carrier and customer loyalty. Many companies should engage in projecting a strong and positive reputation amongst their different stakeholders such as the public, employees, student, and government (Fatt et al., 2000). Positive corporate image can be achieved, for example, through participating in various activities organised nationally and internationally such as participating in research exhibitions and competitions, and organising corporate philanthropic activities that include sponsoring charitable events and conducting community projects. According to Flavia et al. (2005), image can influence consumer's behaviour. It is also interesting to know how students' perception of an institution's image could influence their satisfaction and loyalty.

Widely known, customer satisfaction is a main determinant of customer loyalty. A positive impact of satisfaction is reported on repurchase intentions (Mittal and Kamakura, 2001), positive word of mouth (Bitner, 1990), and customer retention (Bolton, 1998). A strong relationship between customer satisfaction and loyalty and much had been said about the advantage of securing customer satisfaction and loyalty. For example, it is discovered that increased customer satisfaction can be linked to customer loyalty and profit (Heskett et al., 1997).

Surprisingly, the relationship between image and loyalty has received much less attention than the one between satisfaction and loyalty for example. Studies that integrated all three variables – image, satisfaction, and loyalty – are even scarcer. Therefore, this study was conducted to ascertain the role of institution image and student satisfaction in influencing the outgoing undergraduate students' intentions to continue their postgraduate study at the same university, to provide a positive word of mouth and recommendations to their friends, families and other potential students.

Theoritical Background

Image, Satisfaction, and Loyalty

Loyalty has been extensively analysed in relation to customer satisfaction; however image has received much less attention. In the literature, brand image has been defined as a perception of quality associated with the brand name (Aaker and Keller, 1990). On the company level, image has been defined as perception of an organization reflected in the associations held in consumer memory (Keller, 1993). Selnes (1993) suggested that image should be incorporated into a model of loyalty together with satisfaction; he found that both variables, image and satisfaction, were associated with loyalty.

Corporate image is described as the overall impression made on the minds of the public about a firm (Barich and Kotler, 1991). Nguyen and Leblanc (2001) claim that corporate image is related to physical and behavioural attributes of the firm, such as business name, architecture, variety of products/services, and to the impression of quality communicated by each person interacting with the firm's clients.

Corporate image is the result of a process (McInnis and Price, 1987 in Aydin and Ozer, 2005). The process stems from ideas, feelings and consumption experiences with a firm that are retrieved from memory and transformed into mental images (Yuille and Catchpole, 1977 in Aydin and Ozer, 2005). Therefore, corporate image is the result of an evaluation process. Although a customer may not have

enough information about a firm, information obtained from different sources such as advertisements and word of mouth will influence the process of forming corporate image.

Fishbein and Ajzen (1975) in Aydin and Ozer (2005) argue that attitudes are functionally related to behavioural intention, which predict behaviour. Consequently, corporate image as an attitude must affect behavioural intention such as customer loyalty (Johnson et al., 2001). Nguyen and Leblanc (2001) demonstrate that corporate image relates positively with customer loyalty in three sectors (telecommunication, retailing, and education).

Satisfaction can be separated into two approaches either as a transaction-specific satisfaction (Olsen and Johnson, 2003) or as a cumulative satisfaction/post-consumption satisfaction (Oliver, 1997). After 1990s, many researchers view satisfaction as customers' cumulative, after purchase, and overall judgment about purchasing behaviour (Johnson et al., 1995). According to Oliver (1997), satisfaction is defined from the mixture of both affection (emotion) and cognition approach as "the consumer's fulfilment response". It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under or over fulfilment (Oliver, 1997).

Customer satisfaction is viewed as influencing repurchase intentions and behaviour, which, in turn, leads to an organization's future revenue and profits. However, Bowen and Shoemaker (2003) stated that satisfied customers may not return to the firm and spread positive word of mouth communications to others. One of the reasons it that the firm does not deliver what customers need or want (Roig et al., 2006). Woodruff (1997) further identified that customer satisfaction measurement without fulfilment of customer perceived value cannot really meet the customer's expectation. Therefore, other variables should exist to further explain the relationship between satisfaction and customer loyalty.

Although loyalty has been defined in various ways, two main approached have evolved: the behavioural and attitudinal approaches (Yi and La, 2004). The behavioural approach defines loyal customers as those who rebuy a brand, consider only that brand, and do no brand related information seeking. As researchers learned more about loyalty construct, the increasingly recognized not only its behavioural dimension, but also its attitudinal dimension. Oliver (1999) described four consecutive phases of loyalty. The first one, cognitive loyalty, is based on brand belief; the attribute information available to the customer indicates that one brand is preferable to its alternatives. For affective loyalty, the second phase, a liking or attitude toward the brand is needed, based on several satisfying experiences. The next phase, conative loyalty, implies a commitment to repurchase and, therefore, attaches customer more strongly to a company than affective loyalty. However, the desire to rebuy may be an anticipated, yet unrealized step. Action loyalty is the fourth phase: motivated intention is now transformed into readiness to act, accompanied by a desire to overcome obstacles that might prevent the act. Based on this fourth phase, Oliver (1999) defines loyalty as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same brand or same brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour".

Loyalty in the behavioural sense is measured using repurchase probability, long-term choice probability, or switching behaviour. In the attitudinal sense, loyalty s operationalized as brand preference or emotional commitment and is, therefore, measured with repurchase intention, resistance against better alternatives, price tolerance, and intention to recommend the product or service (Yi and La, 2004).

As regards customer loyalty in relation to higher education environment, the study defines behavioural loyalty as the students' willingness to remain at the university to complete their existing undergraduate programs and their intention to continue the graduate programs at the same university again in the future. Meanwhile, the attitudinal loyalty is defined as the students' willingness to provide positive word of mouth and recommendation concerning their university to their families, friends, employers and organizations whenever there are opportunities.

Hypotheses and Structural Model

Based on the results of earlier studies discussed in the previous section, we formulated the hypotheses detailed below. Figure 1 presents a proposed model, representing all of the hypotheses. Arrows in figure 1 indicate causal direction.

H1. There will be a positive relationship between institution image and student loyalty

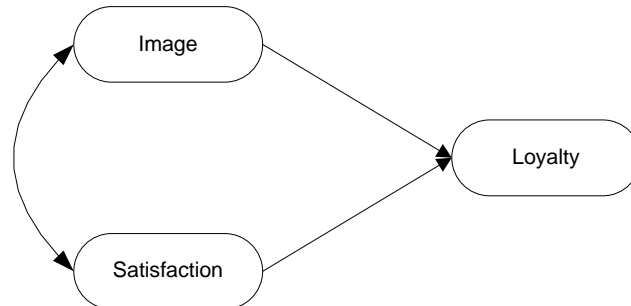H2. There will be a positive relationship between satisfaction and student loyalty

Figure 1: The proposed model

Methodology

Research context and procedure

This research investigates the relationship between image, satisfaction, and loyalty at the undergraduate's level using an electronically distributed survey. In order to assess loyalty, quantitative research is selected. The measurement items were related to three constructs: image, satisfaction, and loyalty. These constructs were measured to test the hypotheses. This research used items that have measured these constructs based on their high level of reliability and validity in previous research. All these constructs were operationalized using multi-item measures. All questions were based on a five-point likert-type scale from "1 = strongly disagree" to "5 = strongly agree". The proposed questionnaire (items for measurement), which has been derived, integrated, and enhanced from Nguyen and LeBlanc (2001), Bettencourt (1997) and Athiyaman (1997). The population for this research was all students enrolled in study program Management in UT for 2013.1.

Survey instrument and measurements

For the purpose of this research, a draft was prepared utilizing and combining three questionnaires. The draft was enhanced based on Nguyen and LeBlanc (2001), Bettencourt (1997) and Athiyaman (1997) surveys. Since all the indicators applied in this study have been used by many other researchers, the instruments was not pretested further.

To measures institution image, the five item scale developed by Nguyen and Leblanc (2001) was adapted to UT. Accordingly, the operational measures in measuring institution image are:

- I have always had a good impression of UT
- In my opinion, UT has a good image in the mind of students
- I believe that UT has a better image than its competitors

Satisfaction was assessed by five items adapted from Athiyaman (1997) six items and Bettencourt (1997) 3 items. Operational measures used in the scale are:

- I am satisfied with my decision to attend UT
- If I had to do it all over again, I would not enrol in UT
- My choice to enrol in UT was a wise one
- I feel bad about my decision to enrol in UT
- I think I did the right thing when I decided to enrol in UT
- I am not happy that I enrolled in UT
- Compared to other university, I am very satisfied with UT

- Based on all my experience with UT, I am very satisfied
- My studying experience at UT have always been pleasant

Regarding the measure of loyalty, a five item scale was developed by Nguyen and Leblanc (2001) four items and Bettencourt (1997) two items was adapted. The operational measures used in measuring loyalty were:

- If I had needed higher education services now, UT would be my first choice
- I will continue to do business with UT
- I would recommend UT as the best higher education service company
- I would encourage friends and relatives to do business with UT
- I say positive things about UT to others
- I make an effort to use UT for all of my higher education needs

Samples

Hair et al. (1998) stated that, for any research that using maximum likehood estimation, the sample size obtained should be at least five times as many as the items to be analysed. However, the authors suggest that it is highly acceptable and most preferred if the study can obtain a sample based on a ten-to-one ratio. In other words, if the study could obtain a number of sample ten times the number of measuring items in the questionnaires. This study has 18 items which consisted of 3 image items, 9 satisfaction items, and 6 student loyalty items. Hence, it is highly preferable and adequate if the study could obtain 10 x 18 = 180 samples. In order to play safe due, to unanswered or unreturned questionnaires, the study decided to distribute questionnaires to 350 undergraduate students. The number of questionnaires returned was 310, but only 300 can be processed. This figure exceeds the required sample size of 180 as stated by Hair et al. (1998).

A six-item socio-demographic section was included in the main survey instrument. The respondents were asked about their gender, age, marital status, occupation, education, and frequently visit UT operational branch (UPBJJ) to explore the several characteristics of respondents.

Table 1: Characteristics of Respondents

Age	• < 25 years old 62%
	• 25 – 30 years old 22%
	• > 30 years old 16%
Marital Status	• Married 35%
	• Not married 65%
Occupation	• Private sector 72%
	• Enterpreneur 19%
	• Public sector 4%
	• Unemployeed 4%
	• Other 1%
Education	• Highschool 83%
	• Diploma 13%
	• Undergraduate 2%
	• Post graduate 2%
Frequenty visit UPBJJ	• < 3 times per semester 24%
	• 3 times per semester 37%
	• 4 times per semester 23%
	• > 4 times per semester 16%

Scale validation and reliability assessment

Confirmatory Factor Analysis (CFA) was performed to examine the construct validity of image, satisfaction, and loyalty. The construct validity was confirmed since all factor loadings and t- value are greater than 0.5 and 1.96 (Hair et al., 1998).

Table 2: Validity

Latent Variables/ Observed Variables	Standardized Loading Factor ≥ 0.50	t- value ≥ 1.96
Institution Image		
IMAG1	0.73	12.22

IMAG2	0.6	10.12
IMAG3	0.88	14.62
Student Satisfaction		
SAT1	0.79	16.02
SAT2	0.8	16.52
SAT3	0.88	19
SAT4	0.93	20.8
SAT5	0.87	18.72
SAT7	0.55	9.96
Student Loyalty		
LOY1	0.59	10.75
LOY2	0.76	14.88
LOY3	0.88	18.48
LOY4	0.82	16.46
LOY5	0.62	11.29
LOY6	0.52	9.1

To ensure that the scales are stable and consistent in measuring the constructs of the research. The construct reliability was assessed by the value of construct reliability (CR) and variance extracted (VE). As shown in table 3 the results revealed that image, satisfaction, and loyalty have good construct reliability since their CR and VE exceed the cutoff value of 0.70 for CR and 0.50 for VE.

Table 3: Reliabilty

Latent Variables	CR $\geq$ 0.70	VE $\geq$ 0.50
Institution Image	0.78	0.49
Student Satisfaction	0.92	0.66
Student Loyalty	0.86	0.50

Result and discussion

Tests of Hypotheses

Structural model analysis aims to test the relationships between latent variables of the conceptual model of the research. In this research, the maximum likelihood estimation have used to examine the hypotheses relationships among image, satisfaction, and loyalty. The results are shown in table 4 and figure 2.

Table 4: Goodness of Fit

Indicator Measurement	Output Value	Cut off value	Conclusion
GFI	0.71	> 0.90	*Marginal fit*
RMSEA	0.18	< 0.08	*Poor fit*
NNFI	0.87	> 0.90	*Marginal fit*
NFI	0.88	> 0.90	*Marginal fit*
AGFI	0.59	> 0.90	*Poor fit*
RFI	0.85	> 0.90	*Marginal fit*
IFI	0.89	> 0.90	*Marginal fit*
CFI	0.89	> 0.90	*Marginal fit*

In this study, the structural model was measured for its goodness-of-fit based on 8 common measures: Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), NNFI, Normed Fit Index (NFI), Adjusted Goodness of Fit Index (AGFI), RFI, IFI, and Comparative Fit Index (CFI) (Hair et al., 1998). As shown in table 4, 6 of 8 GOF measures that the indicator has marginal fit. Therefore, it is concluded that the structural model fit the empirical data collected well.
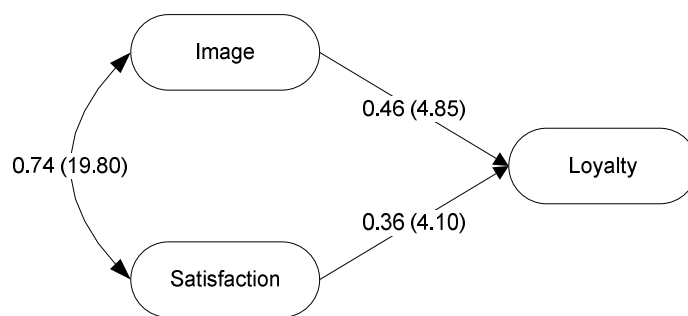
Figure 2: The Structural Model

According to figure 2 and table 5, there are two direct paths are that statiscally significant, namely direct path from image to loyalty and direct path from satisfaction to loyalty. Thus, the first and second hypotheses of this research are supported. Institution image and student satisfaction influences student loyalty positively and significant. The influences of institution image to student loyalty is greater than student satisfaction to student loyalty.

Table 5: Summary of Results

Path	Hypothesis	Estimate	t - value	Conclusion
Institution Image → Student Loyalty	H1	0.46	4.85	Supported
Student Satisfaction → Student Loyalty	H2	0.36	4.10	Supported

Based on SEM analysis, each observed variables has a contribution to latent variables that shown in table 6 below.

Table 6: Contributian Each Observeb Variables to Latent Variables

Latent/Observeb Variables	Description	Estimates
Institution Image		
IMAG3	I believe that UT has a better image than its competitors	0.13
IMAG1	I have always had a good impression of UT	0.08
IMAG2	In my opinion, UT has a good image in the mind of students	0.07
Student Satisfaction		
SAT3	My choice to enrol in UT was a wise one	0.11
SAT5	I think I did the right thing when I decided to enrol in UT	0.11
SAT1	I am satisfied with my decision to attend UT	0.10
SAT2	If I had to do it all over again, I would not enrol in UT	0.10
SAT4	I feel bad about my decision to enrol in UT	0.10
SAT7	Compared to other university, I am very satisfied with UT	0.08
Student Loyalty		
LOY3	I would recommend UT as the best higher education service company	0.14
LOY4	I would encourage friends and relatives to do business with UT	0.13
LOY1	If I had needed higher education services now, UT would be my first choice	0.11
LOY2	I will continue to do business with UT	0.09
LOY5	I say positive things about UT to others	0.09
LOY6	I make an effort to use UT for all of my higher education needs	0.06

Discussion

In this study, the relationship between institution image, student satisfaction and student loyalty is investigated. To this end, the data analysis was analyzed by path analysis. The results of the path analysis show that all of the factors have positive effects on student loyalty.

Retaining customers is very important for the future of many companies like UT as a part of HEI. Student satisfaction and institution image are two variables that are throught to influence students' loyalty. From managerial perspective, understanding the relationships among the three variables is very important. The main goal of this paper was to propose an integrative model of image, satisfaction, and loyalty, and to analyse the impact of experience within this model.

The proposed model and all two hypotheses were strongly supported by the data. Both image and satisfaction were positively linked with loyalty. However, the influence of image to loyalty is greater than satisfaction to loyalty. This indicates that in order to distinguish the offering from that of competitors, all service encounters must be viewed by management as opportunities to provide superior service. This study also uncovers that institution image has an impact on customers post-purchase experiences. This suggest that UT should not overlook to build a favourable institution image since it has an impact on customer perceptions of the firms in many aspects, such as functional and emotional aspects. Therefore, it is recommended to UTs to spend time, resources and effort to build strong image of the service operations through advertising and other effective promotional campaigns to create a strong and favourable image to its stakeholders which include students. Thus, the favourable institutional image of a UT may helpful in the competitive market since it might differentiate it from its competitors.

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