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Determine Student's Loyalty with Student's Trust As Moderating Variable

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Abstract: The student's attrition rate at five private universities in Medan is at 14.86%, this figure is considered very high. Students who dropped out of the university revealed many reasons about the disloyalty. The high level of student's loyalty on their university showed from the less number of drop-out students. The less of attrition's rate (drop-out) determine that the student who study at that program was loyal. This is applying otherwise, rate of the higher attrition that determine the lower of the student loyalty.

The purpose of this study is to determine the effect of the university's image and student's perceived value and student's trust as moderating variable on student's loyalty. This study involved 296 respondents from five private universities which have the largest number of students enrolled in the Faculty of Economics. SEM PLS with the help of a software called WarpPLS is used for data analysis. The results showed that the image of university and student's perceived value have a positive and significant effect on student's loyalty. The result also showed that student's perceived value gives the greatest direct impact on student's loyalty. Student's trust has significant as moderating variable between student's perceived value and student's loyalty.

Keywords: Image, Perceived Value, Trust, Loyalty.

INTRODUCTION

Competition among universities makes higher education providers leave the context of improving the quality of higher education, they are more concerned with how to get the target number of students to ensure continuity of college operations. The number of private universities in the Province of North Sumatra is the largest on the island of Sumatra. (Statistic Indonesia, 2015). This shows that competition among private universities in North Sumatra Province is very high.

The level of student loyalty at a university can be seen from the minimal number of drop-out students during the active period of the study from the beginning up to 4 (four) study years, which is the

standard time period for the undergraduate program. The fewer levels of attrition (drop-out) indicated that students who study in the course are satisfied and will form loyalty later, vice versa. The level of drop-out students at Open University's Faculty of Economics is quite high at 22% per semester (Mulyana and Ayuni, 2014). Online Universities or distance education have higher level of drop-out compared to conventional colleges (Barefoot, 2004). The level of drop out at online universities or distance education is at about 30-50% (Frankola 2001 in Yulselturk and Inan, 2006). In Asian countries it is recorded that the drop-out rate at online universities or distance education is at 50% (Shin and Kim, 1999 in Fozdar *et al.*, 2006).

At Medan, five private universities that have the largest number of economy students namely, Universitas Muhammadiyah Sumatera Utara, Universitas Prima Indonesia, Universitas Katolik Santo Thomas, Universitas Pembangunan Panca Budi and Universitas Methodist Indonesia (based on data processed from forlap.ristekdikti.go.id, 2016) have students drop-out level 18,76 % ; 14,19%; 12,05% ; 13,95% and 15,33% respectively. It can be concluded that the average level of student attrition at universities in Medan reached 14.86% per year. In accordance with the statement Barefoot (2004) which states the level of attrition at conventional universities are lower online universities or distance education.

Image of university and students perceived value are the key to student loyalty. Also if an university can gain trust of student, so it can be concluded that students are going to be loyal or not. A university is said successful in producing qualified graduates only if the students feel satisfied with the process of studying. Student's loyalty is the main thing that must be obtained by the college. A loyal student will certainly uphold his alma mater, will not drop-out in the middle of his studies and spread positive information to the public about the university where he or she is studying.

Following is the result of a survey conducted on the undergraduate Management Program at private universities in Medan, the initial survey of 30 respondents who were transfer students of the undergraduate Management Program was conducted at 10 universities in Medan City. The results of responses from 30 respondents can be seen in the table 1.

Based on the survey results, can be seen that the strong reason for students to move to other university is difficult to pass the exam and many tasks to be completed. Available programs are not as expected, Inefficiency of academic administration services, lack of proper information. Furthermore, University's image is not as expected, Students Appreciation is not noticed and university did not much of encouragement to students to join competition activities

The research conducted by Kunanusorn and Puttawong (2015) shows a strong relationship between student's value, image of university and student trust. Image has a direct and significant relationship to loyalty (Kunanusorn and Puttawong, 2015; Usman *et al.*, 2016; Wong *et al.*, 2016; Taecharungroj, 2014; Hasyim *et al.*, 2015; Helgesen and Nettet, 2007). Sampaio, *et al.* (2012) emphasizes that in using services provided by the University, student trusts will first form student perceived value and then will form a decision to keep using the services provided in the future or to recommend it to others. Hasan, *et al.* (2014) states that trust is between perceived value and customer loyalty. Hashim, *et al.* (2015) explains that trust does not moderate the relationship between student's perceived value and student's loyalty.

Purpose of Study

To understand and analyze the influence of university's image, student's perceived value and student's trust as a moderation variable to student's loyalty.

Table 1
Reasons Students moved from previous University

<i>No.</i>	<i>Information</i>	<i>Total</i>	<i>Percentage</i>
1	Lack of interaction with other Students	8	26.67%
2	Financial issues related to:		
	(a) High tuition fees	8	26.67%
	(b) Many other additional costs	14	46.67%
3	The system used is still conventional	12	40.00%
4	Hard to pass the semester exam	18	60.00%
5	Many tasks to complete	16	53.33%
6	Available programs are not as expected	21	70.00%
7	Inefficiency of academic administration services	19	63.33%
8	Inefficiency of counseling institutions	9	30.00%
9	Lack of proper information from the Department	17	56.67%
10	Slow Response from		
	(a) Office of Department	11	36.67%
	(b) Academic Administration service	9	30.00%
11	Not availability		
	(a) Teaching materials	5	16.67%
	(b) Tasks and Exam Materials	8	26.67%
	(c) Other relevant information	4	13.33%
12	Students Appreciation is not noticed	25	83,33%
13	Not much of encouragement to students to join competition activities	22	73,33%

Sources: Initial survey of transfer students on 10 universities in Medan, 2016.

LITERATURE REVIEW

Influence of University's Image to Student's Loyalty

The relationship between institutional image to loyalty lies in the desire and consumer choice. Decision (Attitudes) toward a particular institution often affect whether the consumer will be loyal or not. Good perceptions and consumer's trust in an institution will create consumer buying interest and even increase customer loyalty to the institution.

Analysis of the relation between institutional image with customer loyalty statistically shows that the image has a significant and positive influence on consumer loyalty (Tu, 2013, Barusman, 2014, Hashim, 2015, Kunanusorn and Puttawong, 2015; Usman and Mokhtar, 2016). The result of Hashim's (2015) study explains that the influence of image on loyalty is greater than the influence of perception of value to loyalty.

The Effect of Student's Perceived Value on Student's Loyalty

Griffin's research (2003) states that to get loyal customers, the company must provide customer value continuously by improving, or even changing the product or service to increase value for the customer.

Hashim *et al.* (2015) indicates that values have a direct positive and significant effect on student loyalty. Values also have a good effect as a mediating variable between image and loyalty.

However, Kunanusorn (2015) and Taucharungroj (2014) explained that the value are influenced more on loyalty through student satisfaction than directly. Several further studies indicate a strong relationship between consumer value and student loyalty. (Hasan *et al.*, 2014; Carvalho, 2010)

The Impact of University's Image on Student's Perceived Value

Brown and Mozzarol (2008) Stated that institutional image has a strong effect on students' perception of value. Kunanusorn and Puttawong (2015) Argue that students' perceptions of value have the greatest impact on image, while Hashim *et al.* (2015) also examines the strong relationship between institutional image and student perceptions. Tu, Li and Chi (2013) state that companies must build a positive image in the eyes of consumers. This is very important in creating good value from consumers.

The higher the identification with overall brand image, the higher the willingness of the students to enroll; likewise, the lower the identification with overall brand image, the lower the willingness of the students to enroll. Therefore, the overall brand image of schools was highly related to the customer lifetime value of students. (Chen and Chen, 2014).

Conceptual Framework

According to reviewing the literatures, there are two independent latent variables which effects student loyalty: university's image, student's perceived value and one moderating variable is student's trust. Student's Perceived Value is an antecedent or mediator of a construct which is assumed to be the driver of student's loyalty as will be subsequently discussed. The conceptual frame work and relations between latent variables of this research are presented in Figure 1 below.

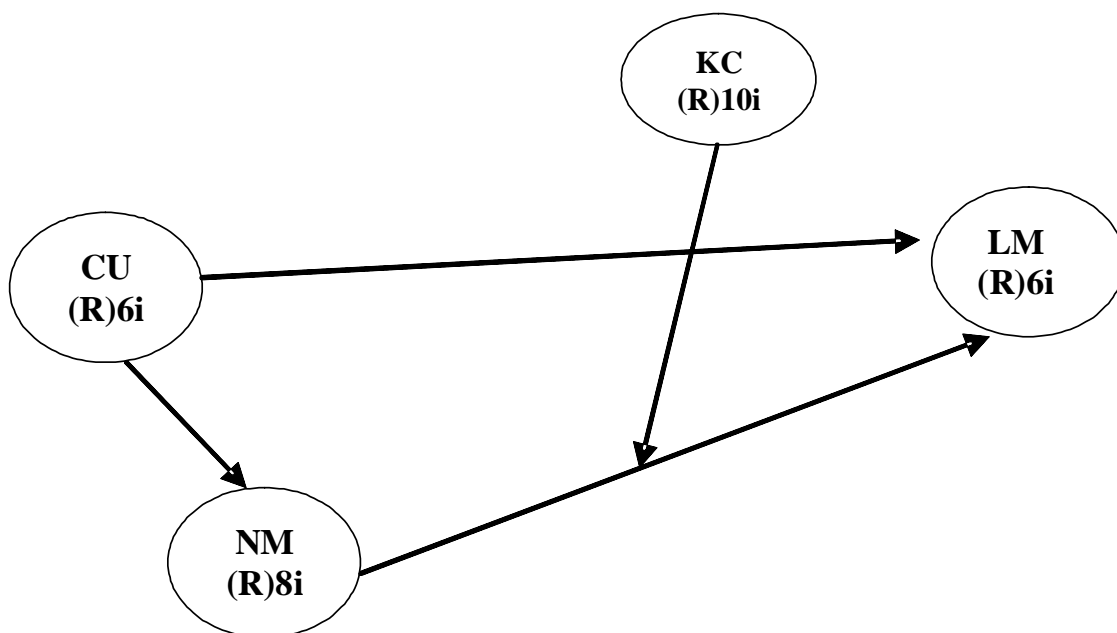


Figure 1: Latent Variable Relations Frame Work

RESEARCH METHODOLOGY

Population and Samples

The study involved five private universities in Medan specifically on the undergraduate Management Programs, namely as many as 296 students from Universitas Muhammadiyah Sumatera Utara, Universitas Prima Indonesia, Universitas Katolik Santo Thomas, Universitas Pembangunan Panca Budi, dan Universitas Methodist Indonesia. The election of five private universities is based on the highest number of students in the Faculty of Economics. Student sampling is based on students' willingness to fill out questionnaires.

Measure of Concept

This research was a quantitative research. The model had been adjusted as latent and manifest variables in accordance with environment and culture of population aimed to be studied. An operational definition in questionnaire was tested and modified in case of some operational definitions that suitable for operation in the field.

Due to complex nature of the model, the Partial Least Squares (PLS) structure equation modeling approach was used to test the model. This procedure allowed us to test the proposed structure of the model totally.

Measurement for independent and dependent variables used was a seven-point Likert type response format, with "strongly disagree" to "strongly agree" (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree). In measurement model, 21 indicators were used to measure study of latent constructs; student's satisfaction (7 indicators), university's image (6 indicators) and student's perceived value (8 indicators).

Data Analysis

Data analysis technique used in this research is SEM (Structural Equation Model) analysis technique. SEM with component or variance basis is an alternative covariance with component-based approach with PLS which aim as prediction. Beside to confirm the theory, PLS also explain the presence or absence of relationships between latent variables, therefore in the framework of research-based predictions PLS is more suitable for analyzing data. PLS can simultaneously analyze constructs formed with reflective and formative indicators. This cannot be done by a Covarian-based SEM as it would be an unidentified model. There are 2 models that must be analyzed in PLS, namely: Assessing outer model or measurement model and Assessing inner model or structural model.

Analytical Results

Initially, results from description of respondents were summarized that 67.57% of them were females and 32.43% were males. 73.65% were just study not working and 26.35% study and working. Most of them (55.07%) know the university from friends and 58.11% of the students were in the 6th semester.

Validating Measurement Model and Validating Structural Model

The Partial Least Squares (PLS) algorithm is used to test the structural equation models. This approach consists of an iterative process that maximizes the predictive and explanatory powers of the models, which

are assessed in terms of the R^2 values of the dependent variables on independent variables had a high value (50%) in the model.

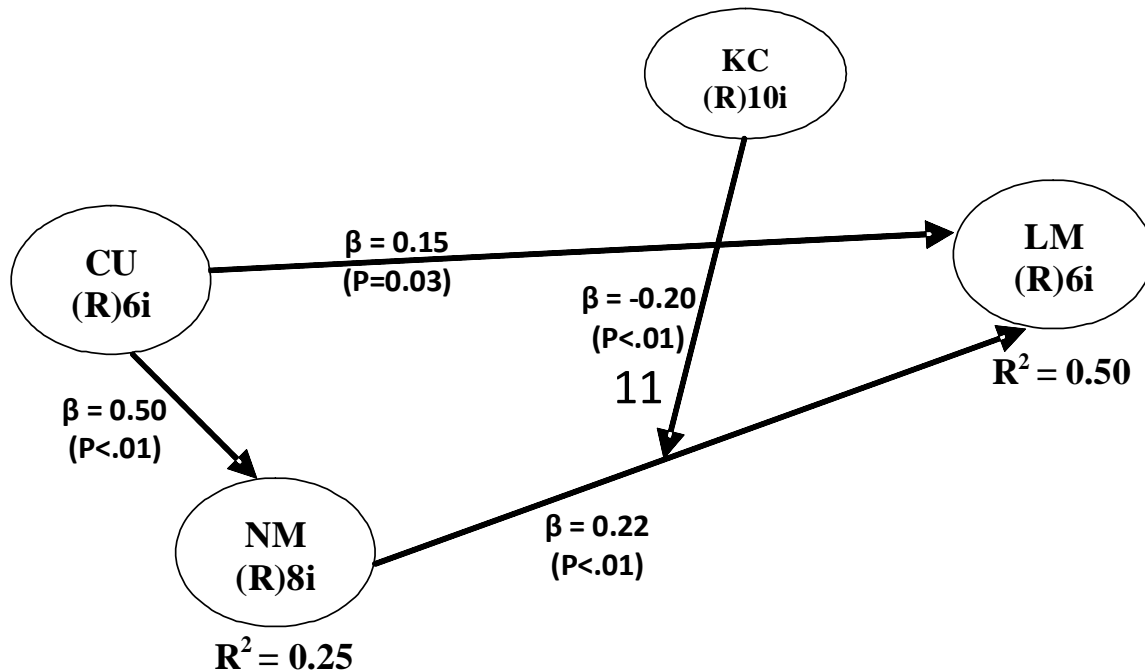


Figure 2: Latent Variable Relations Frame Work

In outer model, the measure's quality using the Loading (Table 1) of each measured variable was examined to ensure the measurement variable load meaningfully to their related constructs. Overall, the measurement variable loading are all relatively large and positive. An individual loading was exceeded 0.400-0.700 (Sholihin dan Ratmono, 2013) to ensure that at least half of the variance in the observed variable is shared with the construct.

An Average Variance Extracted (AVE) is used to check the validity of the measurement model which is widely used. To ensured discriminant validity of the constructs, the AVEs of the latent variables should be greater than the square of the correlations among the latent variables. The discriminant validity result which show the lowest value of AVE is 5,95. AVE value on CU latent variable. AVE value for each latent variable has the value greater than 0,5.

Moreover, in Table 2, table shows that the lowest value of cronbach alpha is 0,862 on CU latent variable. The lowest value of composite reliability 0,898 on CU latent variable. It shows that there are high consistency and stability of the instrument . In other words all constructs or variables of this study can already be a fitting gauge, and all the questions used to measure each construct have good reliability.

Testing The Hypotheses

P-values between University's Image and Student's Loyalty is 0.028, which is smaller than significance value of 0,05. Path coefficient from University's Image to Student's Loyalty is 0,151. *P-values* between Student's Perceived Value to Student's Loyalty is 0.008, which is smaller than significance value 0,05 with *path coefficient*

Table 1
Summary of Results for Reflective Outer Model

<i>Latent Variable</i>	<i>Indicators</i>	<i>Mean</i>	<i>Loading</i>	<i>Composite Reliability</i>	<i>AVE</i>
University's Image	CU01	4.743	0.723	0.898	0.595
	CU02	4.307	0.802		
	CU03	4.716	0.857		
	CU04	4.503	0.816		
	CU05	4.524	0.748		
	CU06	3.882	0.669		
Student's Perceived Value	NM01	4.838	0.758	0.928	0.619
	NM02	4.608	0.725		
	NM03	4.385	0.759		
	NM04	4.382	0.722		
	NM05	5.314	0.858		
	NM06	5.149	0.827		
	NM07	5.193	0.838		
	NM08	5.260	0.800		
Student's Trust	KC01	4.818	0.772	0.958	0.694
	KC02	4.581	0.778		
	KC03	4.105	0.850		
	KC04	4.193	0.857		
	KC05	4.297	0.820		
	KC06	4.446	0.857		
	KC07	3.929	0.869		
	KC08	4.057	0.877		
	KC09	4.615	0.811		
	KC10	4.639	0.829		
Student's Loyalty	LM01	4.304	0.685	0.925	0.673
	LM02	4.878	0.822		
	LM03	5.655	0.891		
	LM04	6.122	0.793		
	LM05	5.399	0.845		
	LM06	5.493	0.869		

Table 2
Assessment of the Validity of the Latent Variables

Latent Variables	Latent Variable Correlation					Cronbach's α	R ²
	University's Image	Student's Perceived Value	Student's Trust	Student's Loyalty			
University's Image	0.772	0.498	0,349	0,451	0.862	0.000	
Student's Perceived Value	0.498	0.787	0,625	0,611	0.911	0.248	
Student's Trust	0.443	0.706	0,833	0,776	0.951	0.000	
Student's Loyalty	0,451	0,611	0,557	0,820	0.901	0.503	

from Student's Perceived Value to Student's Loyalty is 0,216. *P-values* between University's Image and Student's Perceived Value is $P < 0.001$, with *path coefficient* from University's Image to Student's Perceived Value is 0,498. *P-values* between University Image and Student's Perceived Value as mediating variable is $P < 0.001$, which is smaller than significance value of 0,05. Path coefficient from University Image and Student's Perceived Value as mediating variable to Student's Loyalty is 0.181. *P-values* between Student's Perceived Value and Student's Trust as moderating variable is 0.009, which is smaller than significance value of 0,05. Path coefficient from Student's Perceived Value and Student's Trust as moderating variable to Student's Loyalty is -0,195. The indirect influence of the University's Image on Student's Loyalty through Student's Perceived Value is significant. In other words, the Student's Perceived Value significantly mediates the relationship between the University's Image on Student's Satisfaction.

Table 3
P-Value for Path Estimates

Hypothesis	Path. Coef	P-value	Result
H ₁ = CU → LM	0.151	0.028	Accept
H ₂ = NM → LM	0.216	0.008	Accept
H ₃ = CU → NM	0.498	< 0.001	Accept
H ₄ = CU → NM → LM	0.181	< 0.001	Accept
H ₅ = KC × NM → LM	-0.195	0.009	Accept

Four main concepts of the research model (university's image, student's perceived value, student's trust, and student's loyalty) are likely by four path estimates that are all hypothesized to be positive (Hypothesis 1-Hypothesis 5). The findings support all hypotheses are significant at the 0.05 level. This suggests that university image has a significant direct positive effect on student's loyalty (Hypothesis 1); student's perceived value has a significant positive direct effect on student's loyalty (Hypothesis 2); university's image has a significant positive direct effect on student's perceived value (Hypothesis 3); university image has a significant positive indirect effect from student perceived value on student loyalty (Hypothesis 4); student's trust as moderating variable has a significant effect on student's loyalty (Hypothesis 5). Influence given from the result of moderation of trust to student value and student loyalty is significant but inversely proportional.

In Table 3 shows that the positive hypotheses are supported and the proposed relationships are significant. The results from this study (including measures of overall quality and overall outcomes) also provides support to the hypothesized relationships. University's image is a causal variable that put effect on the student's loyalty, and there are influenced by mediating variables via Student's perceived value.

CONCLUSIONS

The result of the research shows that the university's image and student's perceived value have a positive and significant influence either directly or indirectly to student's loyalty. The results of this study are supported from previous research which also found that the university's image and student's perceived value influenced student's loyalty (Tu, 2013; Barusman, 2014; Hashim, 2015; Kunanusorn dan Puttawong, 2015; Usman dan Mokhtar, 2016). The result of this research share the same result as Hashim, 2015 the university's image gives a greater indirect impact on student loyalty through student value. In this research, Student's trust in Medan, is measured by student's trust about technical competence mastery, the University's management team's attitude, the openness to accept and share information, the sincerity to serve and consistency; in the end, trust can serve as moderating variable between student's perceived value and student's loyalty.

In conclusion, the students value can be one of the things that need to be considered as an important strategy for the planning of higher education institutions.

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