Analysis of Effect of Service Quality, Price, E-Learning, and Supporting Facilities against Student Satisfaction and Loyalty Impact on Students at University of Mercu Buana Bekasi

Roni Yunus and Arifin Sitio, Prof. Dr. M.Sc

Master of Management Program Graduate Program University of Mercu Buana

Abstract: Against Student Satisfaction and Loyalty Impact on Students at University of Mercu Buana Bekasi researcher the research sample was taken a total of 100 active student of Master of Management of the University Mercubuana Bekasi grouped by status semestemya to be sampled proportionally. In this study sample will be used using the formula Structural Equation Modeling (SEM), which is an evolution of structural development, namely and models simultaneous equations in econometrics, then combined with the principles of measurement and psychological (such as factor analysis), and analysis of trajectory and sosiologt and biology into a structural equation model. The analysis shows the validity of the testing performed by using the correlation formula moment.rhitung product obtained from the output, the value is then compared with the value rtabel (0.138) is obtained from a reference standard statistical books. Validity testing showed that all the indicators used to measure the variables used in this study had a correlation coefficient greater than r_{tabel}, For samples sebanyak 40 people on a real level α = 5% {0.05}. The results were obtained structural equation Y = 0,74X1 + 0,10X2 + 0,28X3 + 0,56X4 and Z = 1,07Y + 0,17X1 + 0,31X2 + 0,029X3 + 0,15X4. The structural equation it can be seen the value of R² (coefficient of determination) for each of the relationship equation. As for the value of R ² serves to show how far each independent variable able to explain the dependent variable. So we can conclude 67% of the variation of student satisfaction variable (Y) can be influenced by the quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4). And 49% of the variation of student loyalty variable (Z) can be affected indirectly by the student satisfaction (Y), quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4). R² value serves to show how far each independent variable able to explain the dependent variable. So we can conclude 67% of the variation of student satisfaction variable (Y) can be influenced by the quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4). As well as 49% of the variation of student loyalty variable (Z) can be indirectly affected by student satisfaction (Y), quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4).

Keywords: Quality Service, Price, E-Learning, and Supporting Facilities Student Satisfaction and Loyalty.

INTRODUCTION

In the era of globalization, education is an absolute thing that almost required and sought by individuals ranging from preschool level to university level. The university itself is an institution of higher education and research, which provides academic degrees in various fields. The word comes from the Latin university magistrorum ET Scholarium University, which means "community of teachers and scholars.

Classification of quality or university rankings based on three aspects, namely quality (weighted 50%), and efficiency (25%) and relevance (25%) were commonly called the accreditation of the university. The purpose is to inform university accredited higher education institution performance / courses to the public to know deficiencies in order to improve performance. After through counting all grades criteria, will obtain a college accreditation (Table 1.1).

Table-1.1: The order of the University Accreditation Version Ban-PT

Accreditation	Value
A	361-400
B	301-360
C	201- 300
NA	<201

Source: http://halokampus.com/kuliah/akreditasi-jurusan-program-studi/ accessible 03/12/201 at 00:10 pm.

Mercu Buana University tenured faculty balances the needs of the number of students in the study program Master of Management. A total of 58 full-time lecturers and some additional faculty members are able to balance and streamline the lecture Master of Management at the University of Mercu Buana (Table 1.2).

According Lupiyoadi and Hamdani [1] there are four characteristics of universities, namely:
- Universities included in the group of pure service providers which performed powered work tools or means of support alone. Example: classrooms, chairs, tables, books, etc.
- Services rendered requires the presence of customers (students), which in this case customers who come to the institution to receive services desired (though in development there are also offering courses Open University, distance learning (distance learning), and others).
- Recipient of services is people, so the people-based service delivery, or in the so-called system services contract (high contact system, the relationship between the provider of services with high customer.
- Relationship with customers based on the relationship of membership (member relationship), where the customer has become a member of a particular institution.

LITERATURE REVIEW
Definition of Quality of Service
Maintaining quality of service means retain the existence of a company, it greatly affects the quality of service to customer satisfaction and loyalty. Below are some definitions of quality of service according to the experts.

Pujawan [2] defines quality of service (service quality) as a result of the perception and the comparison between customer expectations with actual performance of service, there are 2 main factors that affect the quality of services, which is expected service (experience expected) and perceived service (service received). According to Kotler [3] mentions five dimensions of service quality services that must be met, namely: "Tangibles, Empathy, Reliability, Responsiveness, and Assurance".

Definition Price
Pricing objectives, profit-oriented, volume-oriented, market demand, market share, cash flow, equal competitors, prestige, status quo.
- Profit-oriented, designed to maximize the price compared to the price of the price of competitors, the perception of the value of the company's cost structure products, and production efficiency
- Oriented volumes, set prices to maximize sales volume (in rupiah and in units)
- Market demand, Pricing based on customer expectations and specific purchasing situations.
- Market share, is designed to increase or maintain market share, regardless of fluctuations in the sales industry.
- Cash flow (Cash flow) designed to maximize the development of cash as soon as possible.
- Equating competitors, designed to match or beat the price level of the competitors. The goal is to maintain the perception of good value compared to competitors.
- *Prestige*, Set the expensive price that is consistent with the product bersetatus or high prestige. Prices are set without too reflects the cost structure or level of competition.
- Status Quo, maintaining this hargasaat level in order to secure a competitive position

Definition of E-Learning
E-Learning by Efendi [5] is one method of learning which allows tersampaikannya teaching materials to students by using internet, intranet, or another computer network media.

According Jogiyanto [6] indicator measuring an information system are (1) the quality system (quality system); (2) the quality of information (information quality); (3) the use (use); (4) user satisfaction (user satisfaction); (5) the impact of the individual (individual impact); and (6) the impact of the organization (organization impact).

Meanwhile, according to Lee-Post [4] to measure performance based on five dirnensi E learning is the quality of the system, information quality, service quality, user satisfaction, and the main benefits of e-learning (academic). According Poluan *et al*. [7] there are seven dimensions of information system success is System Quality, Information Quality, Service Quality, System Use, User Satisfaction, and Net Benefit. These dimensions affect one another.

The Definition of Supporting Facilities

Definition of support according to KBBI is funds (means) that will facilitate the (business etc): the smooth flow of traffic is a means ~ for the realization of increasing trade and may also mean the giver benefits (money, etc.) advocate.

In relation to the academic process and lectures, support facilities are an infrastructure that can support the lecture. With the existence of adequate support so fluency in the study will be realized. Some definitions of the facility according to the experts:

According to Mulyani [8], "The school library is a unit of work is an integral part of the educational institutions schools in the form of a place to store a collection of library materials are arranged systematically in a certain way for the use of students and teachers as a source of information in order to support teaching and learning programs.

Definition of Customer Satisfaction

There are several ways to measure customer satisfaction according to Kotler and Keller [3], namely:

Complaint and Suggestion Systems

The company makes systems criticisms and suggestions to improve the performance so far to meet consumers' satisfaction, for example with a toll-free number for consumers and use of the website.

Customer Satisfaction Survey

Doing research on customer satisfaction with the company's products or services within a certain period.

Ghost Shopping

Companies can hire people who can be a potential buyer to measure and report on the weaknesses and strengths of products either goods or services and competitors.

Lost Customer Analysis

Customer satisfaction is the situation shown by consumers when they realize that their needs and wants as expected and met promptly. Dimensions used to measure the level of customer satisfaction, namely: 1) The level of needs and desires are met based on experience, 2) Suitability reality with the specifications on offer, 3) feeling after using these services.

Definition Consumer Loyalty

Kotler and Keller [9] reveal loyalty is "deeply held commitment to purchase or support back preferred products or services in the future despite the influence of the situation and potential marketing efforts cause customers to switch".

Loyalty According Tjiptono [10] "The behavior of repeat purchases solely concerns the purchase of certain brands of the same repeatedly (could be because it is just one of its brands are available, the cheapest brands, and so on).

The difference is, when brand loyalty mencemirkan psychological commitment to a particular brand, the behavior of repeat purchase involves buying the same brand repeatedly, 3) repurchase is the result of domination: a) managed to make their products become the only alternative available, b) were kept - constantly doing promotions to lure and entice customers repurchase the same brand. Customer loyalty is one of the core objectives were pursued in modern marketing.

Based on the explanation above it can be concluded that consumer loyalty is a commitment which is held in depth to purchase or support the return of products or services that are favored in the future despite the influence of the situation and marketing business has the potential to cause customers to switch and dimensions to customer loyalty, namely: a) Discuss matters positive quality of services of the company to others, b) to recommend the company's services to others, c) Encouraging friends or business associates to do business with the company, d) Consider companies as the first choice in using services, and e) Doing business more in time.

Product Definition Services

According to Kotler and Keller [3], the product of service also has some character, there are four characteristics of the service are:

1.   Intangibles (intangibility)

A service has an intangible nature, can not be felt and enjoyed before being bought by consumers.

2.   Inseparable (inseparability)

In umumnyya services produced and perceived at the same time and if required by the person to be submitted to the other party, it will remain a part of the service.

3.   Varies (Variability)

Services are constantly changing tergantuang from whom the service provider and the recipient of services and kondiisi where the services are provided.

4.   Not durable (Perishability)

The durability of a service depends a situation created by a variety of factors. The quality of services received by consumers is important, therefore, in issuing the quality of services, the company should be able to identify the services / services offered to consumers. There are some differences between goods and services, among others:

*   Purchase of services is strongly influenced by motives that are driven by emotion
*   Services are intangible, as opposed to goods that are tangible, it can be seen, felt, kissed, has weight, size, etc.
*   Durable goods, but not services. Services purchased and consumed at the same time
*   Goods can be stored, while the services can not be saved
*   Estimated demand in the marketing of goods is a problem, not the case with marketing services
*   Business services attach great importance to the human element
*   Its distribution is direct, from producers to consumers.

Based on the above definition can be concluded, the service is an activity that generates value and provide benefits for consumers in a particular time and place that is tailored to the needs and desires of consumers.

RESEARCH METHODS

Variables Research / phenomenon being observed

According Sugiono [11], exogenous variables are independent variables that affect the incidence of the dependent variable (dependent). Endogenous variables are often referred to as the dependent variable is a variable that is affected or which become due to the independent variables. In this study, the exogenous variables are price and Personal Selling, while the endogenous variable is the Brand Image and Consumer preferansi.

According Bahrudin *et al.* [12], the application of the types of variables in the study depends on the design of the study, one of the most important principles in quantitative research is taking into account the various sources of variability. Variability indicates how much an observation made by researchers, before carrying out the stages of research.

Exogenous Variables (Independent)

The independent variable x has the letter symbols are often referred to as stimulation. Predictor, antecandent. The independent variable is a variable that affects or has the effect of the cause of the change or lead to a change dependent (dependent). In this study, the, the independent variables are: quality pclayanan (XI). Price (X2), the e-leraning (X3), and facilities (X4).

Intervening variable

This variable function describes the relationship between independent variables and the dependent variable cansuch influence and affect. In this study, the intervening variables is Customer Satisfaction (Y).

Endogenous Variables (Dependent}

This variable has Salu symbol or letter (Z) is often called a variable output, variable kineija, consequent variable, the dependent variable is a variable that is affected or arising from the existence of independent variables. The dependent variable adalalt Customer Loyalty (Z).

To test the hypothesis of the study, each variable to be measured dengusing an instrument in the form of a questionnaire containing questions that represent the dimensions or indicators of variables.

Operational Definition and Measurement of Variables
Operational definitions

The operational definition can be said also *scores* or the value of the respondents regarding the variable in the definition (dimension), option questions using a Likert scale consisting of Strongly Disagree (sts), Disagree (ts), Neutral (N), Agree (s), and Strongly Agree (ss) or operationally defined based on the characteristics are being observed and allow researchers to observe or measure accurately. The operational definition can also be used to facilitate the collection of data as well as to avoid differences in interpretation and limit the scope of variables.

Operational definition of variables in a study is a translation along indikatomya variable in detail, so that there is an unknown variable measurement. Besides, the goal is to facilitate the understanding and perception mcnghindari difference in this study. Based on the thesis that the authors select titles are: "Analysis of Effect of Service Quality, Price, E-leraning and support facilities Against Student Satisfaction and Loyalty Impact on Students At University of Mercu Buana Bekasi".

Testing Instrument
Test Validity

According Ghozali [13], the validity of the test is used to measure whether a legitimate or valid questionnaires. A questionnaire considered valid if the questions in the questionnaire were able to reveal something that will be measured by the questionnaire. To measure the validity can use the significance test by comparing the value of r count r table for degree of feedom (df) = n-2, in this case n is the number of samples.

Test Realiabilitas

According Ghozali [13], the reliability is actually a tool to measure a questionnaire which is an indicator of variables or constructs. A questionnaire said to be reliable or reliable ifsomeone answers to a statement is consistent or stable over time. Testing was conducted to measure the reliability of the statistical test Cronbach Alpha (α), a construct or variable is said to be reliable if the value of Cronbach Alpha> 0.70 [13].

Measurement variable

In this study, a scale of measurement used is a Likert scale. Likert scale is a scale used to measure attitudes, opinions and perception of a person or a group of social phenomenon, Sugiyono [8].

With a Likert scale, the variables to be measured are translated into variable indicator then compiled into a question or a statement. Where the answer to every instrument has a gradation of very amenable become strongly disagree.This size does not give the absolute value of the object, but only gave the rank where the smallest object is numbered 1, and so on, for example:

Strongly Agree:1
Disagree :2
Doubtful:3
Agree :4
Strongly agree :5

Table-3.3: Likert scale

No.	Statement	J awa ba n				
		STS	TS	R	S	SS

Source: Sugiyono (2014: 169)

In this study, respondents choose one response provided then each answer given a certain score. Scores of respondents then summed and this sum is the total score. The total score is what is interpreted as the position of the respondents in a Likert scale.

Population and Sample

According Arikunto [14] is the overall population and the subject of research. So is the population are individuals who have properties that sania although the percentage of similarity was little, or in other words, all individuals who will serve as the object of research. While Sugivono [15] population is a generalization which consists of object / subject that has certain qualities and characteristics defined by the researchers to learn and then withdrawn kesimpulannya.Populasi this research is the Master of Management Entire Current Student Mercubuana Kranggan Bekasi.

Samples

In this study the object to be researched is Mercubuana University Student Masters Bekasi. To obtain a representative sample of the population as a whole. then the sample is taken proportional stratified random sampling. According Nurhayati [16], stratified random sampling can be divided into two parts, namely:

- Proportional stratified sample (Proportionate Stratified Sampling), a stratified sample of the population is divided into homogeneous groups (strata). From each group sampled proportionally.
- Not a stratified sample proportional {disproportionate stratified sampling), stratified sample of the population is divided into homogeneous groups (strata). From each group sampled but not proportional.

The research sample was taken a total of 100 active student of Master of Management of the University Mercubuana Bekasi grouped by status semestemya to be sampled proportionally. In this study sample will be used using the formula Structural Equation Modeling (SEM), which is an evolution of structural development, namely and models simultaneous equations in econometrics, then combined with the principles of measurement and psychological (such as factor analysis), and analysis of trajectory and sosiologt and biology into a structural equation model [17]. Researchers, in addition to knowing that the sample size can affect the amount of static either with yes no (small sample size) or sensitive (At the very large sample size). The sample size (of observation, which scsuai for SEM annua 100-200 samples.

Method of collecting data
Methods of data collection can be done in the following way

- Interview: Interview conducted if researchers want to conduct a preliminary study to find problems that must be investigated, and if researchers want to know - is it of respondents more in-depth and the number of respondents bit / small.
- Questionnaire (questionnaire): A questionnaire was done by giving a set of questions or written questions to the respondent to answer. Questionnaires an efficient data collection techniques if researchers know for certain variables to be measured and know what can be expected of the respondents
- Observation: Data collection techniques this kind of observation have specific characteristics compared to other technical premises, ie interviews and questionnaires. Interviews and questionnaires are always communicating with people, then the observation is not limited to people, but also natural objects that other objects.

Data collection techniques in this study using a questionnaire (questionnaire) to provide a list of questions that will be directed towards providing answers to be closed through a questionnaire. Questionnaires will be given in the form of a question - a question that is in construction in the form of a graduated scale (rating scale) using a Likert scale, containing questions related to the problem and the research variables. Answers of questionnaires each item using a Likert scale has a gradation from very positive to very negative.

Table-3.4: Research Likert Scale Questionnaire

The questionnaire response options	code	scores
Strongly Disagree	STS	1
Disagree	TS	2
Doubt	rg	3
Agree	S	4
Strongly agree	SS	5

Source: Sugiyono [18]

Data analysis method

Data analysis techniques used in the study was the analysis of validity and reliability, the analysis of structural equation models (SEM), and correlation analysis dimensions.

Descriptive statistics

According Sugiyono [18] Descriptive statistics are statistics used to analyze data in ways that describe or depict the data that has been collected as without meaning make conclusions or generalizations apply to the public.

Descriptive statistics has activities ranging from collecting data, presenting data and process data. Presentation of data may take the form of tables, charts, and picture size. Processing data on descriptive statistics can be expressed by the arithmetic mean (mean) and standard deviation (standard deviation), while the following explanation:

a.   mean ($\bar{x}$)

The mean is the average of the scores were measured, calculate the mean for the variable X can use the formula:

$$\bar{x} = \frac{\sum X_i}{n}$$

$\bar{x}$ = Average count

$\sum X_i$ = Amount of data to i

n = number of data

b.   Standard Deviation

Often referred to as the standard deviation or variance as well as the size of the dispersion. The symbol for the population standard deviation is σ and for the symbol sample is *S*,

Standard deviation formula as follows:

$$S = \sqrt{\frac{\sum_{i=1}^{n} (X_i - \bar{X})^2}{n-1}}$$

S = Standard deviation of the sample

Xi = value of every data / observations in the sample

$\bar{x}$ = Average value calculated in the sample

n = total number of data / observations in the sample

Σ = sum operation symbol

c.   Partial Correlation (Partial Correlation)

Partial correlation (partial correlation) is the correlation between a dependent variable (dependent variable) with a particular independent variable (independent variable), while a number of other independent variables that exist or suspected linkage to the dependent variable Y is in engagement with the independent variable X_1, X2, ..., Xk, then it is a partial correlation is the correlation between X and Y (one among X1, X2, ... Xk), while the other independent variables, namely X1, X2, ..., Xi-1, Xi + 1, ... Xk, the situation is fixed or constant.

If there is one piece of the independent variables, namely X_1, X2, and X3 the partial correlation coefficients that there is rY1.23, rY2.13 and YY3.12 correlation coefficient rY1.23 for example, is defined as the correlation coefficient between Y with X1, X2 and X3 when both constant.

The correlation coefficient for the independent variable expressed by the formula:

$$rY1.23 = \frac{r_{Y1.2} - r_{Y3.2}\, r_{13.2}}{\sqrt{(1 - r_{Y3.2}^{\,2})(1 - r_{13.2}^{\,2})}}$$

Correlation

Correlation (*multiple correlation*) Is a measuring tool to determine the linkage (association) between the dependent variable (Y) with several independent variables (X1, X2, ... Xk) simultaneously.

The coefficient of correlation, which is notated $r_{Y1,2\ ....\ k}$ calculated through the relationship between the dependent variable (Y) with several independent variables (X1, X2, ...Xk), which is in the form of Multiple Linear Regression

Y '= a + b1x1 + b2X2 + ... bkXk.

Based on the presence of the multiple linear regression, correlation coefficient was calculated using the following formula:

$$r_Y1,2\ ...... \ k = \frac{b_1 \sum x_1 Y + b_2 \sum x_2 Y + ... + b_k \sum X_k y}{\sum Y^2}$$

Where

$$\sum X_1 Y = \sum X_1 Y - \frac{(\sum X_1)(\sum Y)}{n}$$

$$\sum X_2 Y = \sum X_2 Y - \frac{(\sum X_2)(\sum Y)}{n}$$

$$\sum X_k Y = \sum X_k Y - \frac{(\sum X_k)(\sum Y)}{n}$$

$$\sum Y^2 = \sum Y^2 - \frac{(\sum Y)^2}{n}$$

Analysis Coefficient of Determination

After the correlation coefficient is known, then the next is to calculate the coefficient of determination, which is to find out how much pangaruh variable X to variable Y. The formula coefficient of determination is as follows:

$$Kd = R2\ x100\%$$

Information :
Kd = Coefficient of determination or how far the changes in the dependent variable
R = Correlation of multiple
Criteria for the analysis of the coefficient of determination are:
- If Kd is close to zero (0), then the influence of the independent variables on the dependent variable is weak.
- If Kd approaching one (1), meaning the influence of independent variables on the dependent variable stronger.

Testing Instrument

1 Validity

According Ghozali [13], the validity of the test is used to measure whether a legitimate or valid questionnaires. A questionnaire considered valid if the questions in the questionnaire were able to reveal something that will be measured by the questionnaire. To measure the validity can use the significance test by comparing the value of r count r table for degree of feedom (df) = n-2, in this case n is the number of samples.

Test Reliability

According Ghozali [13], the reliability is actually a tool to measure a questionnaire which is an indicator of variables or constructs. A questionnaire said to be reliable or reliable if someone answers on the statement is consistent or stable over time. Testing was conducted to measure the reliability of the statistical test Cronbach Alpha (α), a construct or variable is said to be reliable if the value of Cronbach Alpha> 0.70 [13].

Analysis of Structural Equation Model (SEM)

SEM modeling analysis can be done three activities simultaneously, namely:
- Checking the validity and reliability of the instrument (related to confirmatory factor analysis)
- The test model of the relationship between variables (related to the path analysis)
- Activities to obtain a suitable model for prediction (related by regression analysis or analysis of the structural model)

According Wijanto [19] in the SEM key variables of concern is the latent variables (latent variabels).

Latent variables

Latent variable is an abstract concept that can only be observed indirectly and imperfectly through its effect on the observed variables. SEM has two (2) types of latent variables are exogenous and endogenous. Exogenous variables always appear as independent variables in all the equations in the model, whereas endogenous variable is the dependent variable in at least one equation in the model, although in all the equations remaining variable are the independent variable.

Variables observed

Variables observed or measured variables are variables that can be observed or measured empirically and often referred to as an indicator. Variables observed the effect or the size of the latent variables. In the survey method using a

questionnaire, each question on the questionnaire represents an observable variable.Wijanto [19] explains that there are two (2) model used in SEM, namely:

Structural Model

Structural model describes the relationships that exist between latent variables. These relationships are generally linear, although the expansion of SEM enables to include non-linear relationship. A relationship between latent variables is similar to a linear regression equation between the latent variables. Multiple linear regression equation is forming simultaneous equation latent variables (similar to the simultaneous equations in econometrics).

Measurement Model

In SEM, any latent variables usually have some size or unobserved variables or indicators. SEM users most often connects latent variable to the variables observed through measurement model form factor analysis and are widely used in psychometric and sociometry. Model the most common measurement in applications of SEM is the measurement model con-generic (congeneric measurement model), where each measure or variable observed only with the latent variables, and all kovariasi between the variables observed are as a result of the relationship between variables observed and latent variables.

According Sarwono [20] SEM procedures also have assumptions as well as the conditions in the process. Some of the assumptions and conditions have in common with univariate statistics and multi-variat. Assumptions and essential requirements that must be observed when using the SEM method:

• The normal distribution indicator - an indicator of multivariate (multivariate normal distribution of the indicators): Each indicator has a normal distribution value of each indicator. Because small beginning multivariate normality can lead towards a big difference in the chi-square test, thus stifling usefulness.

• The multivariate normal distribution dependent latent variables (multivariate normal distribution of the latent dependent variables). Each dependent latent variable in the model must be distributed normally for each value of each other latent variables. Dichotomi latent variables will violate this assumption because of these reasons.

Linearity (Linearity)

SEM has the assumption of a linear relationship between the variables and indicators of latent variables and between latent variables themselves. Yet, as with regression, researchers may be possible to add to the transformation of the exponential, logarithmic, or other non-linear from original variables into the model in question.

Sample size

The sample size should not be smaller because of SEM depends on testing - testing that is sensitive to the sample size and the magnitude of the difference - a difference of covariance matrices. In theory, for the sample size ranged from 200-400 for the models have an indicator between 10-15. Samples below 100 would be less good results when using SEM.

Rekursivitas (recursivity)

A model called recursive if all arrows towards one direction, there is no reversal of the feedback (feedback loops), and interference factors (disturbance terms) or residual error (residual error) for the endogenous variables that are not correlated.

After a few assumptions - assumptions SEM views, selanjutanya is to determine the criteria to be used to evaluate the model and the effects shown in the model. Sarwono [20] describes the values of the model fit index is often used in SEM:

Chi-Square Statistic (C2)

Chi-square test statistic is the most fundamental tool for measuring the overall fit. The chi-square is very sentitif on the size of the sample used. The smaller then the model is getting fit between the theoretical model and sample data. The ideal value of <3.

RMSEA (Root Mean Square Error of Approximatian)

RMSEA is an index that can be used to compensate for the chi-square statistic in a large sample. RMSEA value shows the goodness-of-fit can be expected when the model is estimated in the population, serves as a criterion for the covariance structure modeling error approach primarily considering the population. Suitability model that matches the population covariance matrix. Model good if the value is less than or equal to 0.05: good enough for a smaller or 0:08.

GFI (Goodness of Fit Index)

To measure the relative amounts of variance and covariance of magnitude ranging from 0-1. If the value of the magnitude of approaching 0maka model has a low kecocokanyang being nilaimendekati 1 then the model has a good fit.

AGFI (Adjusted Goodness-of-Fit Index)

GFI serves the same with the difference terketak the DF value adjustments to the model specified. AGFI value equal to or greater than 0.9. If the value is greater than 0.9 then the model has a good overall fitness model.

CMIN / DF (minimum sample discrepancy function / degree of freedom)

Chi Square value is divided by the value of degrees of freedom (degree of freedom) (DF) is also called Chi Square relative to the magnitude of the value of less than 0.2 with tolerances below 0.3 which is an indicator of receipt of a matching model and data.

TLI (Tucker Lewis Index)

TLI is an alternative incremental fit index which compares a model that is tested against a baseline models. The recommended value as a reference for the adoption of a model is a reception> 0.95 and a value very close to 1 indicates a very good fit.

CFI (Comparative Fit Index)

This index has a range of values between 0 and 1. The closer to 1, indicates a very good fit. CFI recommended value is> 0.94. This index amount is not affected by the sample size, because it's very good to measure the level of acceptance of a single model.

RESULTS AND DISCUSSION

Validity test

Validity testing is done by using the correlation formula moment.rhitung product obtained from the output, the value is then compared with the value rtabel (0.138) is obtained from reference standard statistical books. Validity testing showed that all the indicators used to measure the variables used in this study had a correlation coefficient greater than r_{tabel}, For samples sebanyak 40 people on a real level α = 5% {0.05}.

Table-4.1 Test Validity

variables	A statement distributed	Invalid	valid
X1	10	-	10
X2	10	-	10
X3	8	-	8
X4	6	-	6
Y	6	-	6
Z	10	-	10

Source: Questionnaire treated (2018)

Test Reliability

Reliability is a tool to measure a questionnaire which is a measurement tool constructs or variables. A variable is said to be reliable (reliable) if it has a value of Cronbach Alpha> 0.60 [13] The results of reliability testing for each are summarized in the following table:

Table-4.2: Reliability Test Results

variables	Alpha	Conclusion
X1	.775	reliable
X2	.780	reliable
X3	.789	reliable
X4	.797	reliable
Y	.803	reliable
Z	.781	reliable

Source: Questionnaire treated (2018)

The reliability test results show that all the variables have Cronbach Alpha above 0.6 so that it can be said of all the concept of measuring each of the variables of the questionnaire is reliable which means that the questionnaire used in this study is a reliable questionnaire.

Dentification of Respondents

Description of respondents in this research aims to obtain an overview of the Influence of Service Quality, Price, E-Learning and Supporting Facilities against Student Satisfaction and Loyalty Impact on Students at the University Mercubuana Bekasi. An overview of the respondents as the research object one by one can be described as follows:

4.2.5 Respondents by Level Semester

Table-4.3: Respondents by Category Gender

Semester	Frequency	Percentage
1	37	17.80%
2	37	17.80%
3	46	22:10%
4	88	42.30%

Source: Questionnaire treated (2018)

Number of respondents by category level of half the sample in this study consisted of 208 people with 37 people at the level of the 1st half and the 2nd half of 17.8%. 46 level 3 semesters with a percentage of 22.1%, and the fourth semester students amounted to 88 people with a percentage of 42.3%. From the description of the level of half of student respondents by more students than its level 4th semester freshmen other half due to the number of students of 4th semester upwards more than the previous semester.

Descriptive analysis

The data used in this study is the data derived from the results of questionnaires to the respondent in the variable quality of service (X_1), Variable price $($, E-learning variable $(X3)$, variable facilities $(X4)X_2)$, Student satisfaction variable (Y) and the loyalty of students (Z). Quantitative data on every variable is taken by using the number of scores of each statement filed to the respondents amounted to 208 respondents.

Table-4.4: Statistics Description Variable X1

descriptive Statistics					
	N	Minimum	maximum	mean	Std. deviation
item1	208	1	5	3.61	.821
item2	208	1	5	3:02	1,131
Item3	208	2	5	3.75	.739
Item4	208	2	5	3.64	.821
item5	208	1	5	3:52	.862
item6	208	2	5	3.67	.773
item7	208	1	5	3:36	.856
item8	208	1	5	3:45	.867
item9	208	2	5	3.81	.710
item10	208	1	5	3.72	.787
Valid N (listwise)	208			3:55 Satisfied	

Source: Questionnaire treated [21]

Table-4.5: Statistics Description Variable X2

descriptive Statistics				
	N	Minimum	maximum	mean	Std. deviation
item1	208	2	5	3.78	.792
item2	208	1	5	3:45	.931
Item3	208	2	5	3.62	.819
Item4	208	2	5	3:55	.766
item5	208	1	5	3:54	.827
item6	208	1	5	3.76	.786
item7	208	1	5	3.87	.825
item8	208	2	5	3.80	.727
item9	208	1	5	3.83	.767
item10	208	1	5	3:52	.879
Valid N (listwise)	208			3.67 Satisfied	

Source: Questionnaire treated [21]

Table-4.6: Statistics Variable Descriptions X3

descriptive Statistics				
	N	Minimum	maximum	mean	Std. deviation
item1	208	1	5	3:25	.916
item2	208	1	5	3.68	.766
Item3	208	1	5	3:53	.786
Item4	208	2	5	3.89	.646
item5	208	1	5	3.66	.750
item6	208	1	5	3.71	.784
item7	208	1	5	3.80	1,000
item8	208	2	5	4:05	.668
Valid N (listwise)	208			3.69 Satisfied	

Source: Questionnaire treated [21]

Table-4.7: Variable Descriptions Statistics X4

descriptive Statistics				
	N	Minimum	maximum	mean	Std. deviation
item1	208	1	5	3:34	.954
item2	208	1	5	3:41	.896
Item3	208	1	5	3:41	.944
Item4	208	1	5	3:34	.858
item5	208	1	5	3.91	.800
item6	208	2	5	3.88	.784
Valid N (listwise)	208			3:54 Satisfied	

Source: Questionnaire treated [21]

Table-4.8: Statistics Description Variable Y

descriptive Statistics				
	N	Minimum	maximum	mean	Std. deviation
item1	208	1	5	3:56	.904
item2	208	1	5	3.68	.778
Item3	208	1	5	3:12	.960
Item4	208	2	5	3.74	.695
item5	208	2	5	3.73	.672
item6	208	2	5	3.65	.740
Valid N (listwise)	208			3:58 Satisfied	

Source: Questionnaire treated [21]

Table-4.9: Statistics Variable Description Z

descriptive Statistics					
	N	Minimum	maximum	mean	Std. deviation
item1	208	2	5	3.79	.709
item2	208	1	5	3.78	.754
Item3	208	2	5	3.72	.730
Item4	208	1	5	3.76	.722
item5	208	1	5	3.61	.862
item6	208	2	5	3.62	.757
item7	208	2	5	3.70	.693
item8	208	1	5	3:59	.756
item9	208	1	5	3.70	.709
item10	208	2	5	3:54	.754
Valid N (listwise)	208			3.68 Satisfied	

Source: Questionnaire treated [21]

Normality test

In analyzing the data using Structural Equation Modeling and the dissemination of the data used must meet the assumptions required in the analysis. Terms of data that can be processed by this method one is normality, meaning that if data used in the multivariate analysis were not normally distributed, then the validity of the results of the processing becomes less good. According Ghozali and Fuad [13], normality is divided into two, namely:

- Univariate normality (univariate normality),
- Multivariate normality (multivariate normality).

The normality assumption can be tested with the value of z statistics for skewness and kurtosis. If the value of z, both zkurtosis and / or zskewness significant (less than 0.05 at the 5% level) then it can be said that the data distribution is not normal. Conversely, if the value of z, both zkurtosis and / or zskewness not significant (greater than 0.05 at the 5% level) then it can be said that the data were normally distributed. Thus concluded expected normality test results are not significant [13]. Normality univariate and multivariate normality of the data used in this analysis can be tested normality, as presented below.

Table-4.10: Univariate Normality Test

Univariate Test of normality for Continuous Variables

Skewness kurtosis skewness and kurtosis

Variable	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
X11	-1,712	0,087	1,436	0,151	4,993	0,082
X12	-0,439	0,661	-1,030	0,303	1,253	0,535
X13	-1,244	0,214	1,418	0,156	3,557	0,169
X14	-0,856	0,392	0,240	0,810	0,790	0,674
X15	-0,946	0,344	0,136	0,892	0,914	0,633
X16	-0,930	0,352	0,278	0,781	0,943	0,624
X17	-1,563	0,118	0,207	0,836	2,486	0,289
X18	-1,378	0,168	0,499	0,618	2,147	0,342
X19	-1,215	0,224	1,699	0,089	4,363	0,113
X110	-1,312	0,190	1,152	0,249	3,046	0,218
X21	-0,881	0,379	0,504	0,614	1,029	0,598
X22	-1,272	0,203	0,413	0,679	1,788	0,409
X23	-0,943	0,345	0,412	0,680	1,060	0,589
X24	-1,514	0,130	0,299	0,765	2,380	0,304
X25	-1,305	0,192	0,605	0,545	2,070	0,355
X26	-1,286	0,199	1,208	0,227	3,114	0,211
X27	-1,305	0,192	0,792	0,428	2,331	0,312
X28	-1,190	0,234	1,772	0,076	4,557	0,102
X29	-1,365	0,172	1,533	0,125	4,215	0,122
X210	-0,934	0,351	0,195	0,846	0,909	0,635

```
X31 -1,001 0,317 -0,322 0,747 1,107 0,575
X32 -1,503 0,133 1,355 0,175 4,095 0,129
X33 -2,075 0,038 1,067 0,286 5,442 0,066
X34 -1,140 0,254 1,956 0,051 5,123 0,077
X35 -1,907 0,056 1,787 0,074 6,833 0,033
X36 -1,546 0,122 1,758 0,079 5,481 0,065
X37 -1,268 0,205 0,228 0,820 1,659 0,436
X38 -0,699 0,484 1,393 0,164 2,430 0,297
X41 -0,968 0,333 -0,165 0,869 0,964 0,618
X42 -1,176 0,240 0,187 0,852 1,417 0,492
X43 -1,041 0,298 0,066 0,947 1,088 0,580
X44 -1,265 0,206 0,038 0,970 1,602 0,449
X45 -1,309 0,190 0,475 0,635 1,939 0,379
X46 -0,868 0,385 0,493 0,622 0,997 0,607
 Y1 -1,246 0,213 0,559 0,576 1,865 0,394
 Y2 -1,621 0,105 1,613 0,107 5,230 0,073
 Y3 -0,921 0,357 -0,668 0,504 1,295 0,523
 Y4 -1,507 0,132 1,638 0,101 4,955 0,084
 Y5 -1,999 0,046 2,077 0,038 8,311 0,016
 Y6 -1,349 0,177 0,894 0,372 2,617 0,270
 Z1 -1,205 0,228 1,442 0,149 3,531 0,171
 Z2 -1,301 0,193 1,234 0,217 3,217 0,200
 Z3 -1,316 0,188 1,228 0,220 3,238 0,198
 Z4 -1,380 0,168 1,495 0,135 4,138 0,126
 Z5 -0,986 0,324 0,288 0,774 1,054 0,590
 Z6 -1,112 0,266 0,458 0,647 1,447 0,485
 Z7 -1,402 0,161 1,231 0,218 3,481 0,175
 Z8 -1,847 0,065 1,323 0,186 5,162 0,076
 Z9 -1,410 0,159 1,399 0,162 3,945 0,139
Z10 -1,713 0,087 0,387 0,699 3,083 0,214
```

In a test of normality above, data can be said to be normally distributed if P-Value Skewness and kurtosis> 0.05. Univariate normality normality shows the test results for each variable. Based on the output results of the above can be seen that the variables that satisfy normality is almost all variables for the P-Value Skewness and kurtosis> 0.05. But the variables that have a problem with the normality that is X35 and Y5.

Table-4.11: Multivariate Normality Test

Multivariate relative Kurtosis = 1,122
Test of Multivariate normality for Continuous Variables
Skewness kurtosis skewness and kurtosis
Value Z-Score P-Value Value Z-Score P-Value Chi-Square P-Value
------ ------- ------- ------- ------- ------- --------- - -------
970,874 40,511 0,000 3032,606 16,303 0,000 1906,885 0,000

Based on the results of the above it can be seen that the output of multivariate normality is not normal for P-Value for skewness and kurtosis 0.000 <0.050.

Specifications Model
At this stage of the model specifications related to the establishment of a model which is the establishment of relations between the latent variables with each other latent variables and the establishment of relations with the latent variables manifest variables based on the theory applies. Merging all components of SEM into a complete model of the measurement model and the structural model, commonly called Full and Hybrid models, the incorporation of all components of SEM is described in the flowchart (Path Diagram) for ease of viewing the relationships of causality to be tested can be seen in the picture below this.

Path Diagram Figure 4.1 Hybrid Model
Specifications model is run by converting a path diagram into a series of structural equation models and measurement model equations. Structural equation model is

$$Y = Ɣ1X1 + Ɣ2X2 + Ɣ3X3 + Ɣ4X4 + ζ$$
$$Z = Ɣ1X1 + Ɣ2X2 + Ɣ3X3 + Ɣ4X4 + ƔY + ζ$$

Identification Model
In *Structural Equation Modeling*, Expected to receive over-identified model (degree of freedom positive) and avoided the under-identified model (degree of freedom is negative).

To identify the model, researchers need to know the number of known data and the number of parameters to be estimated. For the amount of data which is known to be calculated by the formula $\frac{n(n+1)}{2}$

Based on the output of the data analysis showed that the model in this study is over indentified. With a total number of data covariance (50 * (50 + 1)) / 2 = 1275. while the number of estimated parameters is 109. From these results, the degree of freedom that is generated is 1275-109 = 1166.

Estimation Model
Research models that have met the specification stage and model identification can then estimate the model. In this study, the data do not follow the multivariate normal distribution assumption that the data abnormality then the model is estimated using ML, but the correct standard errors and some goodness of fit indices due to abnormal distribution of the data.

Compatibility Test Model and Respesifikasi
Phase estimates produce a solution containing the final value of the parameter parameter to be estimated. In this stage, the degree of fit between the data examined by the model and make modifications or can be called respesifikasi models. This phase is done by testing and respesifikasi gradually. The first phase of testing of the measurement model to achieve a good test of the feasibility of the model. The second phase, after getting a good measurement model each variable to be tested structurally connected.

Respesifikasi is the last stage in the procedure data analysis with Structural Equation Modeling. In this study, respesifikasi done through two stages respesifikasi respesifikasi measurement model and structural model.

Compatibility Test and Measurement Model Respesifikasi
This stage perform validation to determine whether variable factors used for each latent is in conformity with what is to be measured.

In the measurement model, the model can be seen suitability test the validity and reliability of the measurement model. First to test the validity of the measurement model is the default load factor (Standardized loading factors). In the picture below are shown Standardized loading factors of measurement model above.

Based on output above, it appears that the value of Chi-Square the smaller the better, p-value ≥ 0.50 and load factor standards (Standardized loading factors) ≥ 0.50. This means that our model has not had a good level match.

To improve the overall suitability models can use the index modification (modification indices). Modification index can be done by adding a track or the addition of error covariances. Researchers chose to do the modification index with the addition of error covariances.

Chi-Square value and p-value after modification indexes show that the model already has a good level match. However, there are three variables that do not meet the parameters, ie variable (X11, X12, X18, X22, X24, X27, X210, X31, X37, X38, X45, X46), Y3 (Z7, Z10) that do not meet the charge factor standards (Standardized loading factors) Because the variable (X11, X12, X18, X22, X24, X27, X210, X31, X37, X38, X45, X46), Y3 (Z7, Z10) can not show kevalidannya as one Gauges in student satisfaction and loyalty of students, then the variable (X11, X12, X18, X22, X24, X27, X210, X31, X37, X38, X45, X46), Y3 (Z7, Z10) is deleted after it was examined re back.

After testing up to 2 times, finally showed the whole measurement models with all valid values observed variables. After obtaining a valid measurement model, the next step is to test the suitability of the model.

Test Matches and Respesifikasi Model Structure
This phase includes an examination of the significance of the estimated coefficients with each coefficient representing the hypothesized causal relationships.

At this stage it obtained a good model fit. In order to obtain indicators of latent variables being changed, namely:

- Indicators X1 becomes: X13, X14, X15, X16, X17, and X110 x19;
- Indicators X2 becomes: X21, X23, X25, X26, X28, and X29;
- Indicator X3 becomes: x32, x33, X34, X35 and x36;
- Indicator X4 becomes: X41, x42, X43 and X44;
- Indicators Y becomes: Y1, Y2, Y4, Y5 and Y6;
- Indicators Z becomes: Z1, Z2, Z3, Z4, Z5, Z7, Z8 and Z10.

Based on the suitability test and respesifikasi model that has been done estimation results obtained as follows:

Overall Suitability Test Model

The results of the overall suitability testing calculation model can be seen in Table 4.7. Overall suitability test the model in this study has a chi-square at 1328.03. Statistical test Chi Square follow statistics regarding significant requirements, where the smaller the chi-square value the better the model fit to the data and p-value ≥ 0:05. Goodness of Fit size on this model, chi-square p-value = 0.12240 ≥ 0.05 then it can be said the model had a good match.

Table-4.12: Test Match Overall Model

GOF	Compatibility level Acceptable	Model Index	Information
Chi-Square	The smaller the better (p-value ≥ 0:05)	1280.40 (p = 0.12)	Good
NCP	The smaller the better	9.04	Good
GFI	GFI ≥ 0.90 good fit ≤ 0.80 ≤ 0.90 GFI marginal fit	0.87	*marginal Fit*
RMSR	≤ 0.05 RMSR good fit	0,024	*Good Fit*
RMSEA	RMSEA ≤ 0.05 good fit	0,024	*Good Fit*
ECVI	Values are small and close to ECVI saturated = 0.68	1.31	Not good
NNFI	≥ 0.90 NNFI good fit ≤ 0.80 ≤ 0.90 NNFI marginal fit	0.91	*Good Fit*
NFI	≥ 0.90 NFI good fit ≤ 0.80 ≤ 0.90 NFI marginal fit	0.90	*Good Fit*
AGFI	≥ 0.90 AGFI good fit ≤ 0.80 ≤ 0.90 AGFI marginal fit	0.86	*marginal Fit*
RFI	≥ 0.90 RFI good fit ≤ 0.80 ≤ 0.90 RFI marginal fit	0.98	*Good Fit*
IFI	≥ 0.90 IFI good fit ≤ 0.80 ≤ 0.90 IFI marginal fit	0.98	*Good Fit*
CFI	CFI ≥ 0.90 good fit	0.98	*Good Fit*
PGFI	Values higher is better	0.54	Not good
CN	CFI ≥ 200 good	245.68	Good

Based Hooper *et al.* [22], assessing the size of the model fit to see the value of chi-square test, RMSEA, CFI and RMSR. Therefore, the compatibility test shows the model fit, it can be concluded that the model used in this study can be used as the basis of an analysis of the problem of this research.

Compatibility Test Measurement Model

After the match the model and the data as a whole is good, then the next step is to test the measurement model fit. This evaluation will be carried out between a latent variable with several indicators. Figure 4.6 is a diagram of a standardized solution path and image are the path diagram 4.7 t - value.

At the t-value estimation results are variables that do not have a trajectory that is the relation Y to Y1. This is because the variable is set to be the reference variance that means the manifest variables significantly associated with latent variables. With Figure 4.6 and Figure 4.7 is obtained evaluation measurement model fit is through an evaluation of the evaluation of the validity and reliability; the following will explain the results of the evaluation.

A variable is said to have good validity of the constructs or latent variables if the value of t load factor (*loading factors*) is greater than the critical value (or ≥ 1.96 or practical ≥ 2) and the load factor of its standards (standardized loading factor) ≥ 0.50. And said to be reliable if $CR \geq 0,70$ dan $VE \geq 0.50$. Table 4.8 shows the results of an evaluation of the validity and reliability of each latent variable or indicator.

Based on Table 4.8 shows that there are 10 indicators with 3 latent variable and each indicator has passed the test of validity ($SLF \geq 0.50$ and $\geq$ t-value 0.196) and all the latent variables and the $CR \geq 0.70$ and $VE \geq 0, 50$, it can be said the respondents' answers to the questions that are used to measure each construct or kosntruk indicators are consistent and dependable / reliable.

Table-4.13: Results of Evaluation on Validity and Reliability

Latent variables	Indicators code	SLF	t-value	Ket	CR	VE	Ket
X1	X13	0.59	8,49	valid	0.78	0.56	reliable
	X14	0.55	7,42	valid			
	X15	0.55	7.92	valid			
	X16	0.56	8,21	valid			
	X17	0.57	8.88	valid			
	x19	0.62	8.84	valid			
	X110	0.66	10.73	valid			
X2	X21	0.54	7.17	valid	0.74	0.52	reliable
	X23	0.46	7.49	valid			
	X25	0.50	7.47	valid			
	X26	0.71	10.02	valid			
	X28	0.62	9.00	valid			
	X29	0.61	9.03	valid			
X3	X32	0.69	10.56	valid	0.78	0.55	reliable
	x33	0.66	9.54	valid			
	X34	0.50	6.28	valid			
	X35	0.61	8.88	valid			
	x36	0.55	8.58	valid			
X4	X41	0.78	10.78	valid	0.71	0:58	reliable
	x42	0.75	10.72	valid			
	X43	0.62	9.70	valid			
	X44	0.56	8,49	valid			
Y	Y1	0.73	-	valid	0.75	0.51	reliable
	Y2	0.54	8.01	valid			
	Y4	0.71	10.57	valid			
	Y5	0.65	9.60	valid			
	Y6	0.65	9.63	valid			
Z	Z1	0.66	-	valid	0.79	0.56	reliable
	Z2	0.70	9.37	valid			
	Z3	0.68	9.16	valid			
	Z4	0.81	10.52	valid			
	Z5	0.60	8,17	valid			
	Z7	0.50	6.78	valid			
	Z8	0.55	7.61	valid			
	Z10	0.50	6.83	valid			

Evaluation or analysis of the structural model includes an examination of the significance of the estimated coefficients. Based on the output data analysis structural equation analysis results in Table 4.9 and 4:10 as follows:

Table-4:14 Results of Analysis of Structural Equation Y

Latent Variables Exogenous	*standardized Coefficient*	t-value	Ket	R2
X1	0.74	4.18	Significant	0.67
X2	0.10	0.94	Not significant	
X3	0.28	1.41	Not significant	
X4	0.56	5.26	Significant	

Table-4:15 Results of Analysis of Structural Equation Z

Latent Variables Exogenous	*standardized Coefficient*	t-value	Ket	R2
X1	0.17	1.57	Not significant	0.49
X2	0.31	2.91	Significant	
X3	0,029	0.15	Not significant	
X4	0.15	1.00	Not significant	
Y	1.07	5.28	Significant	

The results were obtained structural equation Y = 0,74X1 + 0,10X2 + 0,28X3 +

0,56X4 and Z = 1,07Y + 0,17X1 + 0,31X2 + 0,029X3 + 0,15X4 Based on Table 4.9 and Table 4.10 on structural equation it can be seen the value of R² (coefficient of determination) for each of the relationship equation. As for the value of R ² serves to show how far each independent variable able to explain the dependent variable. So we can conclude 67% of the variation of student satisfaction variable (Y) can be influenced by the quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4). And 49% of the variation of student loyalty variable (Z) can be affected indirectly by the student satisfaction (Y), quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4).

R² value serves to show how far each independent variable able to explain the dependent variable. So we can conclude 67% of the variation of student satisfaction variable (Y) can be influenced by the quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4). As well as 49% of the variation of student loyalty variable (Z) can be indirectly affected by student satisfaction (Y), quality of service (X1), price (X2), e-learning (X3) and facilities pernunjang (X4).

CONCLUSIONS
Based on the analysis and discussion in the previous chapter, and then obtained some conclusions as follows:
- Latent variable quality of service (X1) positive effect on student satisfaction (Y). This may imply that the higher quality of service, the better the student satisfaction achieved at the University Mercubuana Bekasi.
- Latent variable rates (X2) positive effect on student satisfaction (Y). This may imply that the higher the price the higher the satisfaction of students who achieved at the University Mercubuana Bekasi.
- E-learning latent variables (X3) positive effect on student satisfaction (Y). This may imply that the better e-learning library, the higher the satisfaction of students who achieved at the University Mercubuana Bekasi.
- Latent Variables facilities (X4) positive effect on student satisfaction (Y). This may imply that the higher the better supporting facilities, student satisfaction achieved at the University Mercubuana Bekasi.
- Latent variable quality of service (X1) positive effect on loyalty student (Z). This may imply that the higher quality of service, the higher the loyalty of students achieved at the University Mercubuana Bekasi.
- Latent Variable price (X2) positive effect on loyalty student (Z). This may imply that the higher the price the better the loyalty of students achieved at the University Mercubuana Bekasi.
- E-learning latent variables (X3) positive effect on loyalty student (Z). This may imply that the higher the e-learning, the higher the loyalty of students achieved at the University Mercubuana Bekasi.
- Latent Variables facilities (X4) positive effect on loyalty student (Z). This may imply that the higher the supporting facilities, the higher the loyalty of students achieved at the University Mercubuana Bekasi.
- Latent Variable student satisfaction (Y) positive effect on loyalty student (Z). This may imply that the higher the better student satisfaction achieved loyalty student at the University of Mercubuana Bekasi.

REFERENCES
1. Lupiyoadi, C., & Hamdani, A. (2008). Marketing Management Services.
2. Kotler, P., & Armstrong, G. (2010). *Principles of marketing*. Pearson education.
3. Kotler and Keller.(2012). Marketing Management Issue 14, Global Edition. Pearson Prentice Hall.
4. Lee-Post, A. (2009). e-Learning Success Model: an Information Systems Perspective. *Electronic Journal of E-learning*, *7*(1), 61-70.
5. Efendi, A. (2008). *Bahasa & Sastra Dalam Berbagai Perspektif*. Tiara Wacana.
6. Jogiyanto, H. M. (2007). Sistem informasi keperilakuan. *Yogyakarta: Andi Offset*.
7. Poluan, G., & Nugroho, P. I. (2015). Pengaruh Mekanisme Corporate Governance dan Kondisi Financial Distress terhadap Luas Pengungkapan Sukarela dalam Laporan Tahunan Perusahaan. *Dinamika Akuntansi Keuangan dan Perbankan*, *4*(1).
8. Suharsimi, A., & Yuliana, L. (2008). Manajemen pendidikan. *Yogyakarta-Aditya, Media*.

9. Kotler and Keller. 2009. Marketing Management. Volume I. Edition 13. Jakarta: Erland
10. Tjiptono, F. (2011). Manajemen dan Strategi Merek. *Yogyakarta: Andi*.
11. Rueping, M., Bootwicha, T., & Sugiono, E. (2012). Continuous-flow catalytic asymmetric hydrogenations: Reaction optimization using FTIR inline analysis. *Beilstein journal of organic chemistry*, *8*, 300.
12. Utami, S. B., Mahati, E., Li, P., Maharani, N., Ikeda, N., Bahrudin, U., & Nakayama, Y. (2015). Apoptosis induced by an uromodulin mutant C112Y and its suppression by topiroxostat. *Clinical and experimental nephrology*, *19*(4), 576-584.
13. Kurniasari, C., & Ghozali, I. (2013). *Analisis Pengaruh Rasio CAMEL dalam Memprediksi Financial Distress Perbankan Indonesia* (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).
14. Arikunto, S. Arikunto. 2013. *Dasar-Dasar Evaluasi Pendidikan*.
15. Harun, J., & Desman, I. (2013). Perencanaan Energi Daerah. *Jurnal Ekonomi*, *17*(03).
16. Taufikurohmah, T. Rusmini; Nurhayati. 2008. *Pemilihan Pelarut Optimasi Suhu Pada Isolasi Senyawa Etil Para Metoksi Sinamat (EPMS) Dari Rimpang Kencur Sebagai Bahan Tabir Surya Pada Industri Kosmetik*.
17. Robinson, P. M., & Rossi, F. (2015). Refined tests for spatial correlation. *Econometric Theory*, *31*(6), 1249-1280.
18. Lubis, R. R., & Lestari, R. (2017). Pengembangan Lembar Kerja Siswa Berbasis Inkuiri Untuk Kelas Viii Smp Negeri 5 Rambah Samo Pada Materi Gerak Pada Tumbuhan. *Jurnal Ilmiah Mahasiswa FKIP Prodi Biologi*, *3*(1).
19. Nugraha, E. S., & Wijanto, H. (2015). Analisa Pelat Penghubung Pendek pada Pifa untuk Antena Mimo pada Frekuensi 2300 Mhz–2400 Mhz. *Jurnal Elektro dan Telekomunikasi Terapan*, *2*(1).
20. Sarwono, J. (2012). *Path Analysis: teori, aplikasi, prosedur analisis untuk riset skripsi* (Doctoral dissertation, Tesis Dan Disertasi (Menggunakan SPSS). Jakarta: PT Elex Media Komputindo).
21. Norman, S. A., Miller, L. T., Erikson, H. B., Norman, M. F., & McCorkle, R. (2001). Development and validation of a telephone questionnaire to characterize lymphedema in women treated for breast cancer. *Physical Therapy*, *81*(6), 1192-1205.
22. Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Articles*, 2.