

# The Influence of Quality Academic Service on Student Satisfaction (Empiric Study on Bidikmisi Scholarship Students Regional Office of Universitas Terbuka at Pangkalpinang, Indonesia)

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## Abstract

*This study aims to analyze the influence of the quality of academic service to the satisfaction student regional office of Universitas Terbuka (UPBJJ-UT) Pangkalpinang. The research method used is survey method. Type of research that is verification and descriptive. Data collection conducted through interviews and distribution of questionnaires. Multiple linear regression test obtained  $Y = 0,629 + 0,237X_1 + 0,224X_2 + 0,366X_3 + 0,254X_4 + 0,506X_5 + E$ , multiple correlation test obtained (R) 0,919 and determination coefficient ( $R^2$ ) 84,5% and the rest (E) 15,5% influenced by other factors that are not examined the author. The value of F-count is greater than F-table ( $101,049 > 2,31$ ), so it is stated that there is the significant hypothesis. It can be concluded that the quality of service simultaneously has a positive and significant effect on student satisfaction. Partially tangibles, empathy, reliability, responsiveness, assurance have the positive and significant effect on student's satisfaction at UPBJJ-UT Pangkalpinang.*

**Keywords:** *Quality of Academic Services, Student Satisfaction.*

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## 1. Introduction

Service is one element that is very important for the company's activities. Success or failure in business and continuity of business activity is very dependent on how the ways and forms of service provided to customers. Excellent service will make consumers feel at home and become loyal customers (Rahareng and Volunteers, 2017). Currently, the competition of the service world is getting tighter, creating the company engaged in the service of mutual spur and become a quality company. Because with quality, the company can expand market share and gain big profits (Setiarini et al., 2017).

Creation of excellent quality of service is the primary force to be able to display the company to its customers. The function that creates satisfaction is the spearhead of corporate activities. With the high pleasure, it means that there is a match between the wishes and expectations of consumers to the services provided (Kotler and Keller, 2012). One service company is an

educational institution, a place of academic service that has changed its orientation from social activities into socio-economic activities and now tends to lead to business activities in industries related to higher education. The education institution in its operational form must create customer satisfaction through the improvement of service quality which is of course oriented towards student satisfaction (Sultan and Wong, 2012). Some universities exclude the quality of service. But, there is also a college that prioritizes service quality. Currently, students are more selective in using academic services (Astuti et al., 2014).

Various Central Government scholarships are given as an effort to improve the nation's intelligence, one of them through Bidikmisi scholarship. Bidikmisi is a government program through the Directorate General of Higher Education Ministry of Education and Culture of the Republic of Indonesia launched in 2010. The purpose of Bidikmisi Scholarship program is to break the poverty chain by providing scholarships to outstanding students from needy families to become someone who succeeds, then bring the family out of poverty (Hendrayana et al., 2014). Bidikmisi students must be more active in studying. Various elements of academic services are given the purpose of improving academic achievement. There are some students whose academic achievement degenerate even revoked its scholarship when UPBJJ in one aspect of service has made the academic advisory team. Whether the declining student performance is due to the decreasing quality of academic services or vice versa. In the S-1 Program of Development Economics, S-1 Management, and S-1 of Governmental Science, the number of students during their first registration in each class is 25 students then the number decreases every semester.

Each college must have its weaknesses in the form of its service, regardless of whether it is a large college or a small college. These weaknesses by the college management college of higher education should immediately evaluate themselves and immediately improved to improve the profitability of higher education colleges (Usada et al., 2016). The Distance Learning Program Unit - Open University (UPBJJ-UT), Pangkalpinang as an institution of higher education with an open and long distance education scheme, must always provide the best service for its students. UPBJJ-UT Pangkalpinang must be able to improve the weaknesses of academic services so that it can grow trust to its students to always use the service of higher education through UPBJJ-UT Pangkalpinang. To address the problem, universities need to evaluate and find appropriate ways and strategies for educational services, as educational services that meet expectations apparently will be able to create satisfaction for students (Srinadi and Nilakusmawati, 2008).

## **2. Formulation of The Problem**

Based on the above description, the formulation of the problems proposed in this study are (1) does the quality of academic service simultaneously affect the satisfaction of Bidikmisi scholarship UPBJJ-UT Pangkalpinang, (2) whether the quality of partial academic services are tangibles (direct evidence), empathy (empathy), reliability (reliability), responsiveness (responsiveness), assurance (assurance) affect the satisfaction of BUMNISPIK UPBJJ-UT Pangkalpinang scholarship students.

## **3. Literature Reviews**

### **Marketing Management**

For a company marketing activities have an essential role in achieving objectives by the expected, because marketing activities directed to create an exchange that allows companies to maintain their survival, growth and profit (Brochado, 2009). Marketing management occurs when at least one party to a potential exchange needs a way to get responses from others as it pleases. According to Kotler and Keller (2012), marketing management is the process of planning and executing thinking, pricing, promotion, and distribution of ideas, goods, services, to create exchanges that satisfy individual and organizational goals. Ben M. Enis (2000) in Alma (2004) states that marketing management is a process to improve the efficiency and effectiveness of marketing activities undertaken by individuals or by companies. From the above definition, the author can conclude that marketing management is a process that involves analysis, planning, implementation and control which includes goods, services, and ideas that depend on exchange and with the aim of generating satisfaction for the parties involved.

### **Marketing Mix**

For a company marketing activities are central to the achievement of goals, because marketing activities are directed to create an exchange that enables a company to make a profit. To achieve that goal the company must be able to analyze the demand factors that could affect the sales (Law, 2013). The demand factor consists of uncontrollable factors and controllable factors. Factors that cannot be controlled are factors that cannot be controlled by the company, such as consumer factors, competitors, technology, and government regulations. Factors that can be controlled by the company are factors that can be controlled by the company, such as price, product, and promotion. The set of factors that a company can control at a given moment is called Marketing Mix or Marketing Mix (Jiewanto et al., 2012). Kotler and Keller (2012), states that the marketing mix is a set of marketing tools that companies use to achieve their marketing objectives within the target market. According to Swastha, (1999) the marketing mix is a combination of four variables or activities that are at the core of the company's marketing system, i.e., product, price, place, and promotion. From this understanding can be concluded that the definition of the marketing mix is a combination of business used by companies to achieve its goals.

### **Understanding Services**

The scope of marketing not only covers the obvious results but also includes fantastic products such as the services of obtaining educational services at the Open University. According to Kotler and Keller (2012), services are any action or activity which may be offered by one party to another, which is essentially intangible and does not result in any ownership. Production may be linked or not linked to a single physical product. Stanton (1999) in Alma (2004) states that services are something that can be independently identified as intangible, offered to meet needs. Services can be generated by using tangible objects or not. Thus from both terms the service can be deduced that the service is all economic activity whose result is not a product in physical form, which is usually consumed at the same time as the resulting time and gives added value or solution to the problem faced by the consumer, and it seems that services there is always an interaction between the consumer and the service provider.

### **Characteristics of Services**

Service products have different characteristics with the goods (physical products). According to Griffin (1999) in Lupiyoadi (2011) mentioned the following characteristics (1) Intangibility

(intangible). Service cannot be seen, felt, touched, heard or smelled before the service is purchased. The critical value of this is the elusive value consumers experience in the form of pleasure, satisfaction, or security. (2) Unstorability. The Service does not recognize the inventory or storage of the product that has been produced. This characteristic is also called cannot be separated considering in general services are provided and consumed simultaneously. (3) Customization. Services are often designed specifically for customer needs, as well as in insurance and health services.

### **Classification of Services**

The product of the service, however, is not the same as each other. Therefore, to understand the service sector, there are several ways to classify the product. Based on the level of consumer contact, services can be differentiated into high contact system and low contact system groups. In the high-contact system group, to receive consumer services should be part of the system. This is the case with similar services of education, hospitals, and transportation. While on a low contact system, consumers do not need to be part of the system to receive services. For example, on car repair services and banking services, the consumer does not have to be in contact at the time his car is damaged repaired by technical workshop (Sylvana, Andi. 2006). Fitzsimmons (2000) in Tjiptono (2004), the Horizontal dimension is the level of labour intensity, which is identified as the ratio between labour cost and capital cost. While the vertical dimension set the level of customer interaction and customization. Customization is a marketing variable that describes a customer's ability to affect the nature of the services delivered personally. Less interaction between customers and service providers is needed when the services offered are more standardized than customized ones. For example, a restaurant whose menu has been determined requires a low level of interaction between the customer and the service provider. Conversely, a physician and his patient must interact thoroughly or intensively in the diagnostic and healing stages to achieve satisfactory results.

### **Quality of Service**

Not easy to define the quality properly, but the quality can be detailed. The concept of quality itself is often regarded as a relative measure of the good of a product or service consisting of quality design and quality of conformity. Quality design is a function of product specification, while the quality of compliance is a measure of how far a product can meet a requirement or a predetermined specification (Abdullah, 2005). In reality, this aspect is not the only aspect of quality. In the perspective of TQM (Total Quality Management), quality is viewed more broadly, where not only the aspects are emphasized, but also includes the process, environment, and human. This is apparent in the definition formulated by Lovelock et al., (2011), defines quality from the user's point of view as something that consistently meets or exceeds customer expectations. From the above understanding can be said that one way to distinguish a service company is to provide services of higher quality than competitors consistently, the key is to meet consumer expectations and exceeds what is expected of the products or services consumed. Meanwhile, according to Kotler and Keller (2012), quality is characteristic of a trait of a product or service that influences its ability to satisfy the stated or implied needs.

### **Service quality dimensions**

To be able to assess the quality of services undertaken the company can be judged from the dimensions or aspects of the quality of services itself. According to Parasuraman (1999) in

Lupiyoadi, (2011) concluded that there are five dimensions of service quality, these dimensions are:

1. Tangibles, namely the ability of a company within the company in showing its existence to external parties. The appearance and capabilities of the company's physical facilities and infrastructure and the circumstances of the surrounding environment are clear evidence of the services provided by the service provider. Which includes physical facilities (buildings, warehouses and so on), equipment and equipment used (technology), and the appearance of employees.
2. Empathy, which gives severe and personal attention given to customers by trying to understand consumer desires. Where a company is expected to have understanding and knowledge about customers, understand customer specific needs, and have a convenient operating time for customers.
3. Reliability, namely the ability of the company to provide services by the promised accurately and reliably. Performance must match the customer's expectation of timeliness, the same service for all customers without error, loving attitude, and with high accuracy.
4. Responsiveness, which is a willingness to help and provide prompt service (responsive) and appropriate to the customer, with the delivery of precise information.
5. Assurance, namely knowledge, courtesy and the ability of company employees to grow the trust of customers to the company. It consists of several components such as communication, credibility, security, competence, and courtesy.

### **Customer satisfaction**

The purpose of a business or business is to create satisfied customers. The creation of customer satisfaction provides benefits, such as the relationship between the company and the customer into a harmonious, giving a good impression for repeat purchase and the creation of customer satisfaction and form a word of mouth recommendation (profitable) for the company (Tjiptono, 2004).

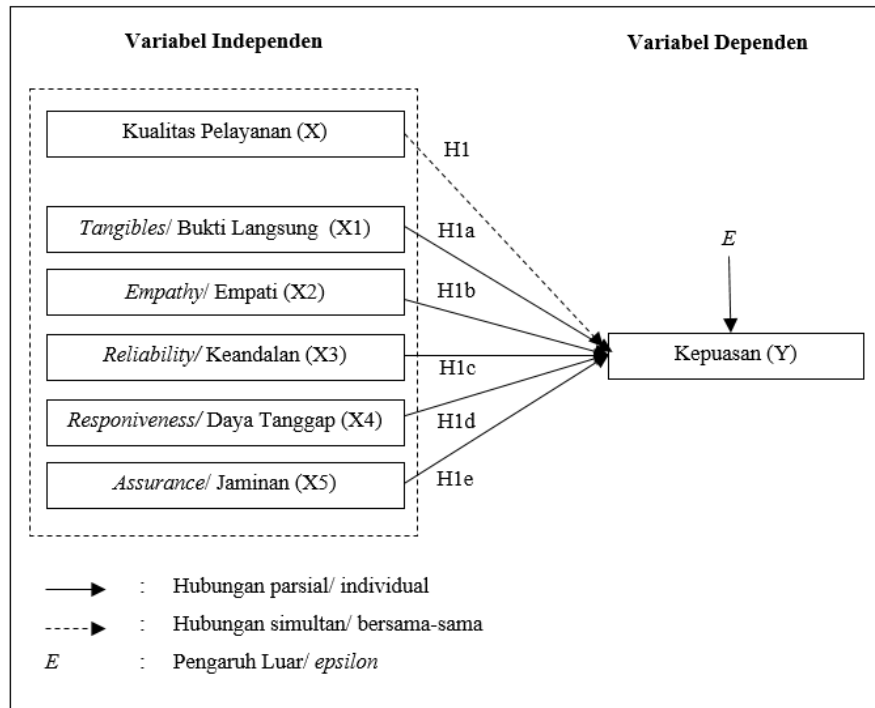
Here are some definitions of customer satisfaction or dissatisfaction according to some experts quoted by (Tjiptono, 2004) are as follows:

1. Wilkie defines customer satisfaction or dissatisfaction as an emotional response to an evaluation of the consumption experience of a product or service.
2. Engel et al. express customer satisfaction as a sales evaluation where the chosen alternative is at least equal or exceeds the customer's expectation, while dissatisfaction arises when outcomes do not meet customer expectations.
3. Kotler and Keller, states that satisfaction is the feeling of pleasure or disappointment of someone who comes from the comparison between his impression of the performance (result) of a product with his expectations.

Based on the above definitions it can be concluded that customer satisfaction is formulated as an after-sales evaluation, in which perceptions of the alternative performance of selected products or services meet or exceed customer expectations.

### **Research Concept**

Based on the description of previous research, can be set up the concept of research with the title of the influence of the quality of academic service to the satisfaction of UPBJJ-UT Pangkalpinang Bidikmisi scholarship students.



Source: Parasuraman, (2011) dan Lovelock, et al., (2011)

**Figure 1. Concept Research Framework**

## 4. Research Methods

### Data and Sample Research

Research using Likert scale model used to measure attitudes, opinions, and perceptions of a person or a group of people about social phenomena (Sugiyono, 2004). The Likert scale has a grade from very positive to very negative. For quantitative analysis, the answers will be given a score of 1 to agree strongly, score 2 to agree, score 3 to hesitate, score 4 to disagree, and score 5 to strongly disagree (Now, 2011).

The population in this research is all the students who receive the scholarship of Poor Outstanding Education Assistance (Bidikmisi) who are studying higher education at UPBJJ-UT Pangkalpinang during registration year 2017.2 which amounted to 131 students spread in S1 Economic Development Study Program Semester 2, S1 Semester Management 8, S1 Semester 6 Management, S1 Semester 2 Management, and S1 Governmental Science Semester 6.

Sample requirements in this study are active students and at least in the second semester and actively follow the implementation of the Facial Tap Tutorial (TTM) held. This causes that the student has felt the question instrument of variable quality of academic service provided by UPBJJ-UT Pangkalpinang. Sampling technique used Non-Probability Sampling by using proportionate sampling technique. Calculation of cumulative sampling with Slovin method to find out how the total size or size of the sample before being distributed proportionally. Method of calculating sample size using the following formula (Sugiyono, 2004):

$$n = \frac{N}{N(d)^2 + 1}$$

Explanation :

- $n$  = Sample size  
 $N$  = Total population of respondents = 131 Students  
 $d$  = Precision value of 95% = 0.05

From the above calculation that the total sample of 131 respondents. The sample size will be distributed proportionally to the five Study Programs. Distribution method using the formula as follows: (Riduwan, 2007).

$$n_1 = \frac{N_i}{N} \times n$$

Explanation :

- $n_1$  = A proportional sample size of each Study Program  
 $N_i$  = The total population of respondents for each Study Program  
 $N$  = Total population of all Bidikmisi Student respondents  
 $n$  = Total sample size (respondents) = 99 respondents

The number of proportional samples used as a sample is:

No.	Registrasi Awal	Program Studi	Semester 2017.2	Total Populasi (N)	Total Sampel (n)
0	1	2	3	4	5
1	2016.2	Manajemen	II	42	32
2	2016.2	Ek. Pembangunan	II	24	18
3	2014.2	Manajemen	VI	21	16
4	2014.2	Ilmu Pemerintahan	VI	22	17
5	2013.2	Manajemen	VIII	22	17
<b>Jumlah</b>				<b>131</b>	<b>99</b>

Source: Data Registration UPBJJ-UT Pangkalpinang (2017)

**Figure 2. Distribution of Total Sample Size of Research**

### Variables and Measurements

The nature of this research is descriptive and verification, so that the research method used is descriptive survey method. This study uses a quantitative approach that will use primary data. The independent variable (X) used in this research is the service quality described in five sub-variables, namely tangible or direct proof (X1), empathy or empathy (X2), reliability or reliability (X3), responsiveness or responsiveness (X4), and assurance or assurance (X5). While the dependent variable or bound (Y) used in this research is the satisfaction of students of BUMNIKBIK UPBJJ-UT Pangkalpinang.

**Table 2. Variable Operationalization**

Variable	Operational definition	Assessment Indicators	Source
<i>Tangibles</i> (X1)	The appearance of physical facilities, equipment, employees, and communication equipment	<ol style="list-style-type: none"> <li>1. Strategic office location</li> <li>2. Extensive parking area</li> <li>3. Completeness of office facilities</li> <li>4. Modernization of learning equipment</li> <li>5. Information facilities (space instructions, bulletin boards, etc.)</li> </ol>	Parasuraman, (2011)
<i>Empathy</i> (X2)	Good treatment of the company to the consumer personally	<ol style="list-style-type: none"> <li>1. The ability of staff and lecturers to handle complaints</li> <li>2. The patience of staff and lecturers in assisting complaints</li> <li>3. Clarity of information provided</li> <li>4. Understanding staff and lecturers in accepting lecturers' instructions</li> <li>5. Ease of communication to staff and lecturers</li> </ol>	
<i>Reliability</i> (X3)	The ability to deliver promised services is accurately reliable.	<ol style="list-style-type: none"> <li>1. Speed UPBJJ-UT Pangkalpinang in handling the problem</li> <li>2. Conformity of problem handling ability with problem</li> <li>3. Discipline staff and lecturers carry out the task</li> <li>4. The routine of staff and lecturers in controlling the unfinished problem</li> <li>5. Ease of procedure in student administration process</li> </ol>	
<i>Responsiveness</i> (X4)	Willingness, readiness to assist consumers or speed and accuracy in providing services with responsiveness	<ol style="list-style-type: none"> <li>1. Readiness UPBJJ staff to be contacted</li> <li>2. Attention staff and lecturers</li> <li>3. Ease students discussing with staff or lecturers</li> <li>4. The accuracy of staff and lecturers in handling student issues</li> <li>5. Staff awareness to students</li> </ol>	
<i>Assurance</i> (X5)	Skills, adequate knowledge of polite and friendly attitudes, risk-free and hazardous guarantees	<ol style="list-style-type: none"> <li>1. The accuracy of data and information by the staff and lecturers</li> <li>2. Student confidence in staff and lecturers.</li> <li>3. The seriousness of staff and lecturers in handling student Problems.</li> <li>4. Security while in UPBJJ</li> <li>5. UPBJJ-UT Pangkalpinang's reputation</li> </ol>	
<i>Satisfaction</i>	Services received by	<ol style="list-style-type: none"> <li>1. The speed of solving the problems of</li> </ol>	Lovelock, et al., (2011)



Variable	Operational definition	Assessment Indicators	Source
Variables (Y)	customers by consumer expectations and perceptions	students during their stay at UPPBJJ-UT Pangkalpinang. 2. Hospitality service by UPBJJ officers 3. Costly education in UPBJJ-UT Pangkalpinang. 4. Ease of handling problems in UPBJJ-UT Pangkalpinang 5. Completeness of staff and lecturers during problem handling. 6. Accuracy managing students. 7. Ease of getting information during education. 8. The regularity of data or records about students.	

### Data Analysis Model

The value of the item to total correlation is considered valid if it is worth  $\geq 0.30$  (Now, 2011; Sugiyono, 2004). The choice of factor loadings  $\pm 0.30$  is also more related to practical significance since the load factor above 0.30 is considered significant at  $p = 0.05$  (Heir et al., 1995) in Abdullah, (2005). Reliability testing can be done by measuring the known internal consistency value of Cronbach Alpha ( $\alpha$ ). The Cronbach Alpha ( $\alpha$ ) value implied for a reliable instrument is  $\geq 0.60$  (Now, 2011; Ghozali, 2009). Reliability testing is done by split half technique. As a condition of using multiple linear analysis. Research to test whether or not multicollinearity among independent variables is evidenced by investigating the magnitude of intercorrelation between independent variables. Product moment correlation technique as follows:

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

Explanation:

- $r_{xy}$  = The coefficient of correlation of each item
- $N$  = Number of sample group members
- $\sum X$  = Number of scores per item
- $\sum Y$  = Total score
- $\sum XY$  = Number of times X and Y
- $\sum X^2$  = the sum of squares score for each item
- $\sum Y^2$  = the sum of squares total score

Conditions do not occur multicollinearity between independent variables there is a high correlation (less than 0.800). If more than 0.800 means multicollinearity occurs and data cannot be used for multiple correlation analysis. To test all hypotheses that have been proposed in this

study, then tested the hypothesis by using techniques Simple Regression Analysis steps that must be taken:

1. Creating a line equation with two predictors, by the formula:

$$Y = a + b_1X_1 + b_2X_2$$

2. Finding the coefficient of determination between the predictor and the criterion Y by using the formula as follows:

$$R_y(1,2) = \sqrt{\frac{b_1 \sum X_1Y + b_2 \sum X_2Y}{\sum X^2}}$$

Explanation :

$R_y(1,2)$  = The correlation coefficient between  $X_1$ ,  $X_2$ , and Y

$b_1$  = Predictor coefficient  $X_1$

$b_2$  = Predictor coefficient  $X_2$

$\sum X_1Y$  = Number of multiplication between  $X_1$  with Y

$\sum X_2Y$  = Number of multiplication between  $X_2$  with Y

$\sum X^2$  = Number of squares of criteria Y

3. Testing the independence of multiple regression, by the formula:

$$F_{reg} = \frac{R^2(N - M - 1)}{M(1 - R^2)}$$

Explanation :

$F$  = value F regression line

$N$  = count case

$M$  = count predictor

$R$  = the correlation coefficient between predictors

If F-count is greater than or equal to F-table, it means that there is a significant influence of independent variable to dependent variable. Whereas, if F-count is smaller than F-table then there is no significant influence between independent variable to dependent variable. F test is used to know the significance of independent variables influence together, namely the quality of academic service to the dependent variable of student satisfaction. Steps in Test F by determining the formulation  $H_0$  and  $H_1$ . Level of significance selected 5% ( $\alpha = 0.05$ ), Decision Criteria Price F-count with price F-table with a degree of success (DB) versus N-1 at sig level ( $\alpha$ ) = 5%. If  $F_{count} \geq F_{table}$ , then  $H_0$  rejected, meaning there is a significant influence of independent variables on the dependent variable. While if  $F_{count} \leq F_{table}$ , then  $H_1$  is rejected, meaning there is no significant influence between independent variables to the dependent variable.

$$F_{hitung} = \frac{R^2(N - m - 1)}{m(1 - R^2)}$$

Dimana :

- F = Value F regression line  
 N = Number of samples  
 m = Constants of independent variables  
 R = The correlation coefficient between the dependent variable and all independent variables.

## 4. Results

Research result

Test results validity questionnaire items show all statement items in each variable (X) has a correlation value higher than  $\geq 0.30$  as the limit value of a questionnaire item. So it can be said that the questionnaire items of Service Quality Variable (X) consisting of tangible/direct proof (X1), empathy (X2), reliability (X3), responsiveness (X4), and assurance (X5) are valid and can be used to measure variable. The test results validity questionnaire items show all statement items in each Student Satisfaction Variables (Y) has a correlation value  $> 0.30$  as the limit value of the questionnaire items.

**Table 3. Validity Test Table**

TINGKAT VALIDITAS				
VAR	ITEM	R HITUNG	R KRITIS	KET
X1	1	0.667536392	0.30	VALID
	2	0.639013686	0.30	VALID
	3	0.716677362	0.30	VALID
	4	0.692519259	0.30	VALID
	5	0.712179541	0.30	VALID
X2	6	0.684362077	0.30	VALID
	7	0.704680011	0.30	VALID
	8	0.752952809	0.30	VALID
	9	0.671762687	0.30	VALID
	10	0.825969599	0.30	VALID
X3	11	0.749417377	0.30	VALID
	12	0.822475376	0.30	VALID
	13	0.75317348	0.30	VALID
	14	0.640838071	0.30	VALID
	15	0.75572593	0.30	VALID
X4	16	0.60762782	0.30	VALID
	17	0.788835247	0.30	VALID
	18	0.798753655	0.30	VALID
	19	0.828404579	0.30	VALID
	20	0.80246459	0.30	VALID
X5	21	0.810289367	0.30	VALID

	22	0.838390533	0.30	VALID
	23	0.855318576	0.30	VALID
	24	0.845547847	0.30	VALID
	25	0.824413909	0.30	VALID
Y	1	0.734035256	0.30	VALID
	2	0.781610561	0.30	VALID
	3	0.590464726	0.30	VALID
	4	0.762755279	0.30	VALID
	5	0.650710278	0.30	VALID
	6	0.81880459	0.30	VALID
	7	0.774755796	0.30	VALID
	8	0.630059265	0.30	VALID

Source: Primary Data Processing Results 2017

Reliability relates to the degree of consistency or the durability of the data within a given time interval. (Sugiyono, 2004). Reliability testing of the questionnaire is done by Split Technique (Split Half). For that purpose, the items of the questionnaires were divided into two groups, i.e., the even questionnaire group, then the score of each group of data compiled itself and then the total score between odd and even groups searched correlation. Overall, that all questions in the questionnaire can be as a research instrument.

Because of the reliable value of item 1 sub-variable X1 above 0.60, i.e., 0.73 then item 1 is declared reliable. Next, to the sub-question items X2, X3, X4, X5 and Y variables are calculated in the same way, and the following results are obtained:

**Table 4. Table Test Reliability**

TINGKAT RELIABILITAS			
VAR	R HITUNG	R KRITIS	KET
X1	0.738470653	0.60	RELIABEL
X2	0.720985196	0.60	RELIABEL
X3	0.847652637	0.60	RELIABEL
X4	0.853734739	0.60	RELIABEL
X5	0.925355427	0.60	RELIABEL
Y	0.873941787	0.60	RELIABEL

Source: Primary Data Processing Results 2017

Multiple linear regression analysis is intended to know the influence between variables X (quality of service) and variable Y (student satisfaction). The goal is to predict or estimate the value of the dependent variable about the value of other variables.

**Table 5. Multiple Regression Outputs**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.629	1.257		.500	.618			
	Bukti Fisik	.237	.097	.141	2.450	.016	.697	.246	.100
	Empati	.224	.107	.141	2.089	.039	.768	.212	.085
	Keandalan	.366	.136	.233	2.687	.009	.854	.268	.110
	Daya Tanggap	.254	.097	.167	2.627	.010	.759	.263	.107
	Jaminan	.506	.103	.364	4.896	.000	.857	.453	.200

a. Dependent Variable: Kepuasan

From the above table obtained  $a = 0,629$   $\beta_1 = 0,237$   $\beta_2 = 0,224$   $\beta_3 = 0,366$   $\beta_4 = 0,254$  dan  $\beta_5 = 0,506$  so that the regression equation can be made is:

$$Y = 0,629 + 0,237 X_1 + 0,224 X_2 + 0,366 X_3 + 0,254 X_4 + 0,506 X_5 + E$$

The equation means, if  $X_1$  (tangible) is perceived both and  $X_2, X_3, X_4,$  and  $X_5$  are constant, then the value of  $Y$  will increase by 0.237 if  $X_2$  (emphaty) is perceived both and  $X_1, X_3, X_4,$  and  $X_5$  are constant,  $Y$  will increase by 0.224 if  $X_3$  (reliability) is perceived good and  $X_1, X_2, X_4,$  and  $X_5$  are constant then the value of  $Y$  will increase by 0.366 if  $X_4$  (resposivennes) is perceived as good, and  $X_1, X_2, X_3,$  and  $X_5$  are constant then the value of  $Y$  increases by 0.254 and if  $X_5$  (anssurance) is perceived both and  $X_1, X_2, X_3,$  and  $X_4$  are constant then the value of  $Y$  will increase by 0.506. The value of  $E$  (epsilon) of 0.155 which is another factor that is not examined the author affect the magnitude of regression direction. To know multiple correlation and degree or strength of the relationship between variable  $X$  (Quality of Service) with variable  $Y$  (Satisfaction) simultaneously can be seen correlation and coefficient of determination ( $R^2$ ).

**Table 6. Multiple Correlation Outputs**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.919 <sup>a</sup>	.845	.836	2.20275	.845	101.049	5	93	.000

a. Predictors: (Constant), Jaminan, Bukti Fisik, Daya Tanggap, Empati, Keandalan

From the results of multiple correlation analysis, obtained a very strong correlation value of 0.919, this is based on interpretation table of correlation coefficient level, where the result is between 0,800-1,000, whereas from the coefficient of determination analysis found that the variable  $X$  (service quality)  $Y$  (student satisfaction) of 84.5% (0.845), while the rest ( $E$ ) of 15.5% (0.155) determined by other factors in this case not examined by the author.

### Test of Regression Coefficient Together (Test F)

This test is used to find out whether the variable  $X$  (Quality of Academic Service) affects the variable  $Y$  (Student Satisfaction), then we will test it with the use of  $F$  test statistic.

$H_0$  : This means there is no influence on service quality ( $X$ ) on student satisfaction ( $Y$ ) in UPBJJ-UT Pangkalpinang.

$H_1$  : This means that there is an influence on service quality (X) on student satisfaction (Y) in UPBJJ-UT Pangkalpinang.

The following provisions:

- If F-count  $\geq$  F-table, then  $H_0$  is accepted
- If F-count  $<$  F-table, then  $H_0$  is rejected

Where F-table = F (0.05; 5; 99) = 2.31

**Table 7. Output Test F (Simultaneous)**

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2451.499	5	490.300	101.049	.000 <sup>a</sup>
	Residual	451.244	93	4.852		
	Total	2902.743	98			

a. Predictors: (Constant), Jaminan, Bukti Fisik, Daya Tanggap, Empati, Keandalan

b. Dependent Variable: Kepuasan

From the above analysis, it is known that F calculates 101,049. Where the rejection criterion is  $H_0$ . If F-count is greater than F-table 2,31 or  $F_0 > F_{\alpha 1, n-5}$  with significant level 0.000 smaller than at 0.05 which means we trust 95% that together with the above five variables affect the variable Y (satisfaction).

### Partial Regression Coefficient Test (t-test)

To find out which variables affect Y (Student Satisfaction) then it is necessary to test the variables  $X_1, X_2, X_3, X_4, X_5$ , individually in this case we use t-test statistic. By looking at the significant level in SPSS table with error level less than 0.05 then it is stated significant.

$H_0$  : There is no partial influence between  $X_1$  (Tangible),  $X_2$  (Empathy),  $X_3$  (Reliability),  $X_4$  (Responsiveness),  $X_5$  (Assurance) to student satisfaction of UPBJJ-UT Pangkalpinang Bidikmisi Scholarship.

$H_1$  : There is the influence of partial influence between  $X_1$  (Tangible),  $X_2$  (Empathy),  $X_3$  (Reliability),  $X_4$  (Responsiveness),  $X_5$  (Assurance) to student satisfaction of BUMNIKBIK UPBJJ-UT Pangkalpinang.

**Table 8. Test Output t (Partial)**

Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.629	1.257		.500	.618			
	Bukti Fisik	.237	.097	.141	2.450	.016	.697	.246	.100
	Empati	.224	.107	.141	2.089	.039	.768	.212	.085
	Keandalan	.366	.136	.233	2.687	.009	.854	.268	.110
	Daya Tanggap	.254	.097	.167	2.627	.010	.759	.263	.107
	Jaminan	.506	.103	.364	4.896	.000	.857	.453	.200

a. Dependent Variable: Kepuasan

Source: Primary Data Processing Results 2017

### Testing Criteria

t-count > t-table or - t-count < t-table, then reject the hypothesis  
Sub Variable  $X_1$  t-count = 2,450 > t-table 1.68, then  $H_0$  is rejected  
Sub Variable  $X_2$  t-count = 2.089 > t-table 1.68, then  $H_0$  is rejected  
Sub Variable  $X_3$  t-count = 2.687 > t-table 1.68, then  $H_0$  is rejected  
Sub Variable  $X_4$  t-count = 2.627 > t-table 1.68, then  $H_0$  is rejected  
Sub Variable  $X_5$  t-count = 4.896 > t-table 1.68, then  $H_0$  is rejected

### Effect of Service Quality (X) on Student Satisfaction (Y)

From the results of multiple correlation analysis, obtained a very strong correlation value of 0.919, is based on interpretation table of correlation coefficient level, where the result is between 0.800-1000, whereas from the coefficient of determination analysis found that the variable X (quality of academic service) variable Y (student satisfaction) equal to 84,5% (0,845), while the rest (E) equal to 15,5% (0,155) determined by another factor in this case not examined by writer.

So the results of this study using multiple correlation analysis models are significant, so it can be concluded that the quality of service performed by UPBJJ-UT Pangkalpinang affects student satisfaction. The results of this study support Setiarini's research, et al. (2017), Apriliana (2014), Rahareng and Volunteers (2017), and Astuti, et al. (2014) which explains that the quality of service simultaneously or together has a positive and significant impact on Bidikmisi student satisfaction.

### Influence $X_1$ (Tangible), $X_2$ (Empathy), $X_3$ (Reliability), $X_4$ (Responsiveness), $X_5$ (Assurance) to Student Satisfaction (Y)

Then, for the five sub-variables of the variable of service quality (variable X) that is sub-variable  $X_1$  (tangible),  $X_2$  (empathy),  $X_3$  (reliability),  $X_4$  (responsiveness),  $X_5$  (assurance) known t-count is,  $X_1$  2,450,  $X_2$  amounted to 2.089,  $X_3$  of 2.687,  $X_4$  of 2.627, and  $X_5$  of 4.896. So when compared with a significant level of 5% ( $\alpha = 0.05$ ) and t-table of 1.68 then  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  affects the variable Y (student satisfaction).

This matter is caused by the result of sub-hypothesis test by using a t-test, t-count is bigger than t-table, meaning  $H_0$  is rejected while  $H_1$  accepted, which mean there is the influence of sub-variable of education service quality ( $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$ ) to student satisfaction variable (variable Y). The results of this research support Setiarini research, et al (2017) to students in Balikpapan State Polytechnic, Apriliana, et al (2017) to students in Economic Education FKIP Sebelas Maret University Surakarta and Astuti, et al (2014) who tested 5 (five) dimensions of service quality on Poltekkes students Kemenkes Surakarta states that each sub-variable studied is the assurance, reliability, real evidence, empathy, and responsiveness each have a positive impact on student satisfaction.

## 5. Conclusion and Suggestion

### Conclusion

Based on the results and discussion above, it is concluded that the influence of service quality consisting of Tangible (physical evidence), Empathy (empathy), Reliability (reliability), Responsiveness (Responsiveness), and Assurance (Collateral) Simultaneously positively and

significantly influence Student Satisfaction of UPBJJ-UT Pangkalpinang Bidikmisi Scholarship. Service Quality has an effect on Student satisfaction level that is equal to 84,5% (0,845), while the rest equal to 15,5% (0,155) determined by another factor in this matter not examined by the author.

While partially only to five sub-variables have a significant influence on student satisfaction with the analysis that the t-count is greater than t-table with details t-count  $X_1$  of 2.450,  $X_2$  of 2.089,  $X_3$  of 2.687,  $X_4$  of 2.627, and  $X_5$  of 4.896 bigger than t-table of 1.68 with a significant level of 5% ( $\alpha = 0.05$ ).

## Suggestions

### For UPBJJ-UT Pangkalpinang

It should be necessary to improve the quality of services to provide academic services to BUMNIKIS BUMNIKIS UPBJJ-UT Pangkalpinang students, where some things that need to be improved are Tangible sub-variables or physical evidence, that is a good parking area for more extended, special facilities on the media-academic information needs an addition. Sub variable Empathy or empathy, i.e., be patient with students or prospective students regardless of gender or age and provide ease of communication with faculty and academic staff.

Sub variable Reliability or reliability that is to seek action more quickly in handling student complaints. Increase staff competence, increase lecturers and staff, strive for work control schedule and increase routine of academic staff in controlling (visite) student's complaint. Sub variable Responsiveness or responsiveness, namely improving the readiness of lecturers and staff to be contacted through the accuracy of lecturer data and timeliness of claims settlement on schedule. Sub variable Assurance or guarantee, which is continually trying to improve the competence of staff to be able to act quickly and appropriately so that student satisfaction can be more increased.

### For Further Researchers

The researcher recommends (1) to be able to do the same research periodically in the next period but by using another instrument type of service quality (SERFERF, HEdPERF). This is an ongoing evaluation and improvement and diversity of discussion focus. This suggestion is also to find out how effectively the improvement effort is implemented. (2) include open questions as criticism, suggestions, and comments to know other things. (3) It is necessary to conduct joint research with other UPBJJ-UT so that the results obtained can be generalized to other UPBJJ-UT who participated in the research.

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