

# The Effect of Functional Quality and Technical Quality to the Student Satisfaction and Word of Mouth: Direct and Indirect Effect (Study to the Faculty of Economy and Business State University of Gorontalo)

Frangky Rengkung<sup>1</sup>, Mintarti Rahayu<sup>2</sup>, Ananda Sabil Hussein<sup>3</sup>

<sup>1</sup>Student of Master Program of Management in University of Brawijaya

<sup>2,3</sup>Lecturers of Faculty of Economy and Business in University of Brawijaya

---

**Abstract:** *This research aims to test and prove empirically about: First, whether functional quality and technical quality affected directly to the student satisfaction. Second, whether functional quality and technical quality affected directly to the word of mouth. Third, whether functional quality and technical quality affected indirectly to the word of mouth through student satisfaction. Population in this research was students in Faculty of Economy and Business State University of Gorontalo, Department of Accounting, Economy, and Management. The research sample was 120 respondents which taken by probability sampling method using proportional random sampling technique. Data analysis in this research used PLS-SEM (Partial Least Square – Structural Equation Modeling). The research result showed that: Functional quality and technical quality affected to the student satisfaction. Functional quality and technical quality directly had no effect to the word of mouth; however, it was indirectly affected through student satisfaction. In this case, the effect of functional quality was larger than technical quality.*

**Keywords:** *Functional quality, Technical quality, Satisfaction, Word of mouth*

## 1. Introduction

The high population growth rate in Indonesia, indeed, will affect to the increase of education needs, particularly for Higher Education. Every citizen has right to choose education as the needs. It has been mentioned in the Law on National Education System No.20 Year of 2003 Chapter IV about Right and Obligation of Citizens, Parents, Community, and Government. In that Law, Article 5 verse 1 states that every citizen has the same right to obtain qualified education. Thus, to reach qualified education, it needs responsibility from all parties including government and community itself, as the affirmation of education service in Law on National Education System No.20 Year of 2003 Chapter III about Principles of Education Provisions Article 4

verse 6 states that Education implemented by empowering all community components through participation in the implementation and control of education service quality.

Issues about service quality of Higher Education in Indonesia, recently own the concern from all parties, especially for education observer and academician. In the public discussion about service quality of Higher Education Institution which published by Shanghai Ranking's Academic Ranking of World University (ARWU) towards top 500 World University in 2016, in fact, none of Higher Education or University in Indonesia able to reach the ranking of World University. According to Times Higher Education World University Ranking that publishes the survey result in 2016, it shows that only two Higher Educations in Indonesia which able to reach the World ranking of 801 above, they are University of Indonesia and Bandung Institute of Technology. While, based on Asian ranking, University of Indonesia placed the ranking between 181-190. It pays much concern and attention that Higher Education in Indonesia is deteriorating and undeveloped as it should be. According to Top Universities which publishes survey result in 2016 based on top 500 ranking, there are only two Universities in Indonesia which placed on World ranking of 325 and Asian ranking of 67, while Bandung Institute of Technology placed on World ranking of 401-410 and Asian ranking of 86. It means that only two Universities in Indonesia which able to survive in the ranking assessment of 300 above. With this data, then it is necessary to conduct re-survey to the Higher Education in Indonesia. Therefore, Indonesia is still far away left behind from other countries, thus it needs new institution in order to improve reputation of Indonesian Higher Education in the world.

Good service quality will lead to the student satisfaction and encourages them to recommend the Higher Education. Many previous studies stated that most of researchers only focused on service process from service provider that given to the customers, how the service providers have good attitude and behavior in solving customer's complaint, and how

the service providers accept and avoid suggestions from customers. It is Servqual quality service model by Parasuraman et al., about how to give good service. As mentioned by Kang and James (2004), many previous studies considered Servqual instrument assessment as service process. Arasli et al., (2005) stated that four dimensions of Servqual can be affected, particularly to the reliability. Kitapaci et al., (2014) argued that empathy and guarantee dimension affected and have positive relationship. Chaniotakis et al., (2009) stated that responsive, physical evidence, guarantee, and reliability affected to the satisfaction; while, empathy, directly, affected to the word of mouth. Responsive, guarantee, and physical evidence indirectly affected to the word of mouth through satisfaction. In other assessment of service quality, Chang et al., (2012) stated that service quality affected to the satisfaction which then affected to the word of mouth. From those previous studies, it concludes that, actually, service quality has owned simultaneous service. However, the service has different perspective and cannot be related each other. Simply, previous studies stated about service quality assessment which still has problems in implementing service process. Related to those problems, it needs to develop other variable such as technical quality variable which focuses on perceived result to give professional work and skill impression for the providers.

It is different with service quality concepts above, Gronroos (1984) argued that good service quality assessment need to be conducted based on functional quality and technical quality. Besides that, Gronroos also stated the necessary in assessing quality from image aspect as the whole service quality. Image will result in positive view if functional quality and technical quality aspect are reliable to meet customer's satisfaction (Kang and James, 2004; Emari et al., 2011). This model quality aspect by Gronroos (1984) emphasized on the importance of service assessment, not only based on service process, but also the service providers have to know customer's perception about their service, thus the providers will be able to assess their own performance.

Gronroos (1984) in his model concept stated that functional quality becomes very important aspect from the perceived service compared to technical quality aspect. Keong Chee (2006) argued that not all service quality dimensions affect satisfaction. The assumption is that the result is in contrast with the expectation, especially to the functional quality aspect which less affected to the satisfaction, while technical quality affected to the satisfaction. Emari et al., (2011) stated that simultaneous service quality more affected by technical quality aspect than functional quality aspect – in which it completely has no effect. Other

findings are different with Kang and James (2004) which stated that functional quality and technical quality affected service quality simultaneously to be related with customer's satisfaction.

Fanani (2008) mentioned that technical quality aspect more affected to the word of mouth communication than functional quality aspect. While, other findings are different with Smith and Ennew statement (2001) which argued that functional quality aspect more affected to the word of mouth than technical quality aspect – in which it is completely has no effect – although technical quality has effect on willingness of recommendation. According to Sandy Ng et al., (2011), functional quality aspect has better word of mouth behavior than service.

In the study of Higher Education, Afianti (2011) stated that aspects, technical quality and functional quality aspect, affected student satisfaction. Keyser and Bart (2014) argued that technical and functional service quality has positive effect to the customer pleasure and grow its own satisfaction to customers. Lundahl et al., (2009) mentioned that technical quality aspect and functional quality aspect in service management proved to have relationship with customer satisfaction. Kang and James (2004) stated that functional quality aspect and technical quality aspect affected service quality simultaneously to be related in customer satisfaction.

Chang et al., (2012) argued that satisfaction, significantly, affects customer intention to be involved in word of mouth communication. In other finding, it is found that satisfaction has mediation effect from service to the word of mouth communication. Indirect effect shows satisfaction role as mediator to the University education service management in Malaysia. Chaniotakis et al., (2009) stated that understanding satisfaction to the word of mouth is very important for marketing managers through offering opportunity to the customers to do action in increasing their satisfaction in order to give positive word of mouth communication. Arasli et al., (2005) argued that customer satisfaction will affect word of mouth. Kitapaci et al., (2014) stated that customer satisfaction affects word of mouth.

From the explanation about previous studies above, then it can be summarized about gap or limitation of previous studies as in Table 1 below:

No.	Research Gap	Previous Study	
		Research	Research Result
1.	Service quality proved to have direct or indirect effect to the word of mouth through satisfaction. However, the effect of service quality, which analyzed as functional quality and technical quality, is not always result significant effect.	Chang et al. (2012) Chaniotakis et al. (2009)	Service quality affected to the word of mouth either directly or indirectly through satisfaction.
		Gronroos (1984) Keong Chee (2006)	Technical quality has no effect to the satisfaction.
		Emari et al. (2011)	Functional quality has no effect to the satisfaction.
		Smith dan Ennew (2001) Sandy Ng et al. (2011)	Technical quality has no effect to the word of mouth.
		Fanani (2008)	Functional quality has no effect to the word of mouth.

Table 1. Research Gap

Based on the research gap such in Table 1 above, this research aims to analyze the effect of functional quality and technical quality to the word of mouth both directly and indirectly through student satisfaction. With more detail knowledge about mastery on each service quality aspect to the satisfaction and word of mouth, thus faculty management will be easier in determining the steps that need to be implemented in increasing satisfaction and word of mouth.

This research was conducted in Higher Education Faculty of Economy and Business State University of Gorontalo. Today, Higher Education service sector keeps developing to be superior National Higher Education. Higher Education in Gorontalo also keep improving many aspects in order to meet Education National Standard based on Government Rule No.19 Year of 2005, including content standard, graduate competency standard (technical), process standard (functional), education and education administrator standard (functional), facility and infrastructure standard (technical), curriculum (functional), student or learner (technical), and educator evaluation outcome (technical), in order to support government program in facing Higher Education globalization and liberalization. Based on the education standard, it needs gradual improvement to minimize managerial problems in Faculty of Economy and Business such as human resource, lack of facility and infrastructure, learning system, attitude and behavior, and information of educator staff and

education staff. Faculty of Economy and Business, which newly established last year in State University of Gorontalo has much concerned from students where their department and study program are now separated from Faculty of Social Science to Faculty of Economy and Business. There are many issues related to this case such as inadequate facilities, buildings, and library. Other issue is lack of educator or lecturer in Faculty of Economy and Business, thus it is necessary to perform collaboration with Faculty of Economy and Business Padjadjaran Bandung.

Background explanation from functional quality aspect and technical quality aspect becomes important factor to assess service quality in order to make the service able to create good satisfaction and recommendation. Assessment to this service quality will be useful towards the development of Faculty of Economy and Business. The goal of this research was to know the relationship between functional quality aspect and technical quality aspect in Faculty of Economy and Business which will be able to give great contribution for further research.

## 2. Review of Related Literatures and Developing Hypotheses

Conceptual framework that proposed and tested in this research summarized on Figure 1 as below:

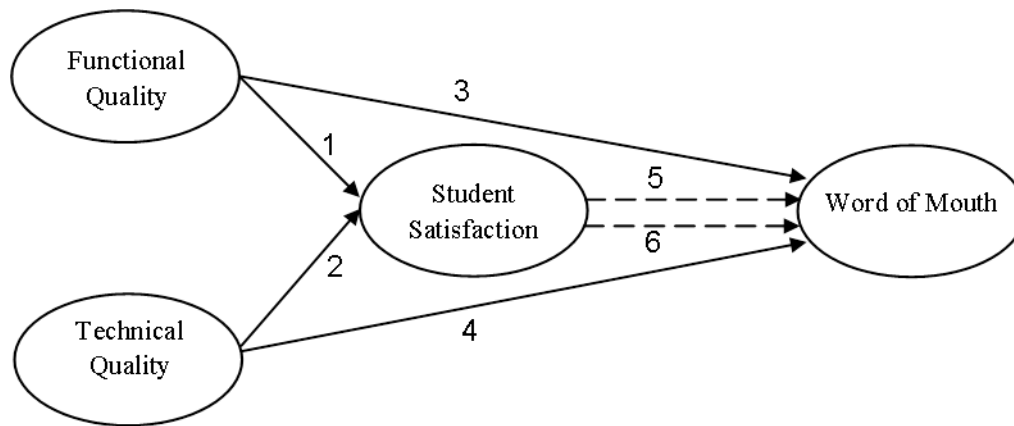


Figure 1. Research Conceptual Framework

## 2.1. Functional Quality

Functional quality is service process quality that gives direct service to customers or through interaction between service provider and customer. This functional quality emphasizes on the service that given by service provider. This quality assesses attitude, flexibility, reliability, and trust indicator (process-related criteria) (Gronroos in Tjiptono, 2014:270).

### 2.1.1. Functional Quality to the Student Satisfaction

According to Kang and James (2004), functional quality affected service quality simultaneously to be involved in the satisfaction. Good interaction process from service provider will give positive effect to the perceived customer perception, thus it gives effect from the service to grow satisfaction. Afianti (2011) argued that functional quality affected to the student satisfaction as what have been expected. Service process from good interaction will grow student's expectation and desire, thus by performing good interaction, it will have positive effect towards the Higher Education of University. Keyser and Bart (2014) stated that functional service quality has positive effect to the customer pleasure and grow its own satisfaction to customers. The effect from good service process will grow its own pleasure or happiness from customer's expectation and desire, thus with this pleasure then customers will perceive their satisfaction. Lundahl et al., (2009) mentioned that functional quality in service management proven to be related with satisfaction. Service from good interaction will create relationship between attitude and behavior from provider to the customers, and also will create fast service to increase customer satisfaction. Keong Chee (2006) stated that not all service quality dimensions affect satisfaction. The assumption is that the result is in contrast with the expectation, especially to the functional quality aspect which less affected to the satisfaction. Emari

et al., (2011) argued that simultaneous service quality has no effect to the satisfaction. These findings are different with the research of Kang and James that uses same concept as well as also different with Gronroos finding from his model. The implication is that it is necessary to conduct a new research in order to be able in giving contribution to the functional quality aspect. Based on the explanation from previous studies, then this research stated hypothesis as follows:

**Hypothesis 1:** Functional quality has effect to the student satisfaction.

### 2.1.2. Functional Quality to the Word of Mouth

According to Smith R and Ennew (2001), it stated that functional quality more affected to the word of mouth. Service process from Higher Education through good interaction will be affected to the simultaneous service quality to be related in word of mouth communication. The availability of facility and infrastructure for students will increase student's desire to recommend their choice to others. Sandy Ng et al., (2011) stated that the role of trust, behavior, and social relationship encourages customer perception through functional quality which leads to affect word of mouth behavior. Benefit of good relationship, which given by service provider as interaction to customer, will grow positive word of mouth behavior. Fanani (2008) argued that functional quality had no effect to the word of mouth communication. It is different with two previous studies, thus it is necessary to conduct a new research in order to be able in giving contribution to functional quality, particularly to explain that, actually, service process quality has good interaction form between students and Higher Education. Based on explanation from previous studies, this research proposed hypothesis as follows:

**Hypothesis 3:** Functional quality affected to the word of mouth.



### 2.1.3. Functional Quality to the Word of Mouth through Student Satisfaction

Many previous studies stated that functional quality directly affected to the satisfaction (Kang and James, 2004; Keong Chee, 2006; Lundahl et al., 2009; Afianti, 2011; Keyser and Bart, 2014). This result gives perspective that functional quality which directly affected to the student satisfaction will have good effect to the service process in Higher Education. Students who receive good service process and perceive satisfaction will recommend it to others about service that they perceived from the Higher Education. Moreover, previous studies stated that functional quality directly affected to the word of mouth (Smith and Ennew, 2001; Sandy Ng et al., 2011). By this direct effect of functional quality to the word of mouth, it represents that good service process and interaction will grow student's willingness to recommend the Higher Education after the students perceive satisfaction. Many previous studies found that satisfaction directly affected to the word of mouth (Arasli et al., 2005; Chaniotakis et al., 2009; Chang et al., 2012; Kitapaci et al., 2014). It is in line with previous studies where there is positive relationship between satisfaction and word of mouth. Therefore, it can support basic theory to this research. The conclusion and implication is that the previous studies only studied about direct effect from many variables and there was no study towards mediation effect of functional quality which affected to the word of mouth through satisfaction. Therefore, this research would not only analyze the direct effect, but also would analyze the indirect effect. Based on the explanation above about previous studies, this research stated hypothesis as follows:

**Hypothesis 5:** Functional quality affected to the word of mouth through student satisfaction.

## 2.2. Technical Quality

Technical quality is customer perception about service process as the result of service interaction. It means that technical quality is customer perception or response to assess the service that been given by service provider. This indicator is perception about employee professionalism and skill, operational system, and physical resource that needed to cope with their problems professionally (outcome-related criteria) (Gronroos in Tjiptono, 2014:268).

### 2.2.1. Technical Quality to the Student Satisfaction

Technical quality is customer perception about service process as the result of service interaction. It means that technical quality is customer perception or response to assess the service that been given by service provider. Good perception quality will be

obtain if the experienced quality meets customer's expectation (expected quality). Technical result from service process is result that received by customers from their interaction with service provider which then perceived by customers to be assessed and re-evaluated. It means that technical quality assesses professionalism and skill level from the service provider.

According to Kang and James (2004), it stated that technical quality affected service quality simultaneously to be related in satisfaction. Perception from good interaction process will give positive effect to assess provider performance. Afianti (2011) argued that technical quality affected student satisfaction as the expectation. Perception that suitable to the student expectation and desire will give positive effect towards the Higher Education of University. Keyser and Bart (2014) stated that technical quality has positive effect to the customer pleasure or happiness and grow its own satisfaction to customers. The effect from good customer perception will lead to its own pleasure of satisfaction, in turns, it will be able to give feedback for provider performance. Lundahl et al., (2009) stated that technical quality in the service management proved to be related with satisfaction. Perception result which proven after receiving service process will create good relationship between customer and provider, thus it will lead to its own satisfaction. Emari et al., (2011), based on Gronroos (1984) model and the development of Kang and James (2004) concept stated that simultaneous service quality more affected by technical quality. Keong Chee (2006) argued that not all service quality dimensions affect satisfaction. The assumption is that the result is in contrast with the expectation due to technical has no effect to the satisfaction. This finding has implication to the needs of new research in order to be able in giving contribution towards technical quality aspect. Based on the explanation from previous studies above, this research stated hypothesis as follows:

**Hypothesis 2:** Technical quality affected to the student satisfaction.

### 2.2.2. Technical Quality to the Word of Mouth

According to Fanani (2008), it stated that technical quality more effected to the word of mouth communication. It implies that technical quality creates better student perception as the interaction result and communicates the perceived service in word of mouth. Good student perception over Higher Education service will grow good performance and skill professionally for staffs and administrators in the Higher Education. With good student perception from the interaction service, the student expected to give word of mouth communication or recommend to others about the Higher Education. Smith and Ennew (2001) stated

that technical quality has no effect to the word of mouth, however, technical quality has effect to the willingness in giving recommendation. According to Sandy Ng et al., (2011), it stated that technical quality has no effect to the word of mouth behavior. This finding is different with the previous study, thus it is necessary to conduct further research in order to give contribution to the technical quality aspect. Based on the explanation from previous studies, this research proposed hypothesis as follows:

**Hypothesis 4:** Technical quality affected to the word of mouth

### 2.2.3. Technical Quality to the Word of Mouth through Student Satisfaction

Many previous studies stated that technical quality directly affected to the satisfaction (Kang and James, 2004; Emari et al., 2011; Lundahl et al., 2009; Afianti, 2011; Keyser and Bart, 2014). These findings give implication that technical quality directly affected to the student satisfaction, in which it will give good effect to the student perception over the interaction result in Higher Education. Students who have good perception and perceive satisfaction over the service will recommend to others about their perception over service interaction that they perceived in the Higher Education. Student perceptions that recommended to others have assessed professional performance and good skill from education staff and educator staff in the Higher Education. Moreover, the previous study stated that technical quality directly affected to the word of mouth (Fanani, 2008). With this direct effect of technical quality to the word of mouth, it gives a view that student perception from good interaction will create student willingness in recommending the Higher Education after the students perceive satisfaction from education staff and educator staff performance. Many previous studies stated that satisfaction directly affected to the word of mouth (Arasli et al., 2005; Chaniotakis et al., 2009; Chang et al., 2012; and Kitapaci et al., 2014). Almost all previous studies stated that there is positive relationship between satisfaction and word of mouth where it can support this research basic theory. Its conclusion and implication is that many previous studies only give direct effect from many variables and there was no study towards mediation effect of technical quality which affected to the word of mouth through satisfaction. Therefore, this research would not only analyze the direct effect, but also would analyze the indirect effect. Based on the explanation above about previous studies, this research stated hypothesis as follows:

**Hypothesis 6:** Technical quality affected to the word of mouth through student satisfaction.

## 3. Research Method

### 3.1. Research Type

This research type was explanatory research which conducted by collecting data all it once in one step (one short study) or cross-section through questionnaire. Explanatory research means to explain causal relationship among variables through hypothesis test or aims to obtain correct test in drawing causality conclusion among variables and then selecting the action alternative (Kuncoro, 2003). The reason in using explanatory research was due to this research goal was to prove empirically and explain the significant effect of technical quality and functional quality to the student satisfaction and word of mouth in Faculty of Economy and Business State University of Gorontalo, which then draw the conclusion about confirm or reject the theories or findings over previous studies.

### 3.2. Population and Sample

Population in this research was all students in Faculty of Economy and Business State University of Gorontalo that registered, active in their class, and have passed the learning for 2 years or more, or in 5<sup>th</sup> or 7<sup>th</sup> semester Batch of 2015-2016. According to data from academic department of Faculty of Economy and Business State University of Gorontalo, the number of student in 5<sup>th</sup> or 7<sup>th</sup> semester is 1,206 students. The research sample was 10% from that population (1,206), which was 120 students (Arikunto, 2010:174). Sample taking in this research was conducted through probability sampling method using proportional random sampling, which is sampling technique that used when the research population has heterogeneous member/element and proportionally stratified (Sugiyono, 2011:64).

### 3.3. Data Source

#### 3.3.1. Secondary Data Source

Secondary data source is source that obtained by researcher indirectly from the studied object. In other words, the data obtained and reordered by other parties. Secondary data in this research was very important due to the data could be used as population and sample determination that would be studied. The secondary data in this research included number of student in Faculty of Economy and Business, textbooks, and empirical studies.

#### 3.3.1. Primary Data Source

Primary data source is source that obtained by researcher directly from the studied object. This data obtained from students, then collected and processed by the researcher. The primary data, actually,

obtained from secondary data that been processed to be research sample and the number of sample was the next step to create primary data. Primary data in this research included questionnaire that arranged by the researcher and distributed to the research sample (students).

### 3.4. Research Instrument

#### 3.4.1. Instrument Validity Test

Validity test is a test that used to assess whether or not the questionnaire is valid. If the instrument of statement item is not valid, then it can be stated that the statement items is not consistent with other statement items. In contrast, a questionnaire stated as valid if the statement item able to reveal something that will be assessed by the questionnaire (Ghozali, 2001).

#### 3.4.2. Instrument Reliability Test

Reliability is index to assess statement or question items in questionnaire in which it shows the extent of instrument can be confirmed. A questionnaire stated as reliable if one's answer to the question or statement is consistent and stable from time to time (Ghozali, 2001).

### 3.5. Data Analysis Technique

Instrument to analyze the research data was statistical analysis of Partial Least Squares-Structural Equation Modeling (PLS-SEM), SEM is model that used to test the effect of exogenous variable to the endogenous variable.

#### 3.5.1. Assessment Model Evaluation (Outer Model)

This assessment model aims to perform construct validity and construct reliability test. Assessment model test used to validate constructed research model. The two main parameters intended to test construct validity (convergent and discriminant validity) and test the value consistently (construct reliability) (Hartono and Abdillah, 2009:58).

##### a. Construct Validity Test

Construct validity test performed in two ways, convergent validity test and discriminant validity test (Hartono and Abdillah, 2009:80; Ghozali, 2008:24).

##### b. Construct Reliability Test

Construct reliability test used to test consistently about instrument accuracy and

precision in assessing constructs. Reliability test of a construct with reflective indicator can be found from Cronbach's Alpha value and Composite Reliability value (Hartono and Abdillah, 2009:81; Ghozali, 2008:25).

#### 3.5.2. Structural Model Evaluation (Inner Model)

Inner model test evaluated using R-square to predict construct of endogenous variable, while Q-square test used to predict relationship which has significance from parameter coefficient of structural path (Ghozali, 2008:26).

### 3.6. Mediation Analysis

In mediation research, many researchers use the result of PLS-SEM analysis (Hair et al., 2006:592). According to Solimun (2011), test towards mediation variable is not enough if it is only conducted based on model analysis which involved mediation variable. Mediation assessment using Sobel test instrument is one instrument that can be used in mediation analysis in which data taken from PLS analysis result (data that obtained from path coefficient a/b and its standard error). A significant criterion in the test is p-value < 0.05 which indicates that there is an effect of mediation variable (M) to the correlation test between X to Y.

## 4. The Result of the Study

### 4.1 The Result of Validity Pilot Test and Reliability Pilot Test

Before the questionnaire distributed to respondents, the researcher conducted pilot test first to the research instrument.

Validity test can be conducted by viewing relationship between score in each item of questionnaire and total score that want to be assessed by using Pearson Correlation Coefficient where limit criteria for the test is 0.3. While, reliability test of an index can be viewed from statistical test of Cronbach's alpha with test criteria of alpha coefficient larger or equal with 0.6, then the instrument item will be stated as reliable (Sekaran, 2006). The larger alpha coefficient, the more reliable items in questionnaire. The result of pilot test towards validity and reliability test presented on Table 2 as below:

Variable	Items	Validity		Reliability	
		Coefficient	Note	Coefficient	Note
Functional Quality	X1.1	0.857	Valid	0.795	Reliable
	X1.2	0.784	Valid		
	X1.3	0.763	Valid		
	X1.4	0.863	Valid		
	X1.5	0.782	Valid		

	X1.6	0.861	Valid		
	X1.7	0.788	Valid		
Technical Quality	X2.1	0.854	Valid	0.798	Reliable
	X2.2	0.831	Valid		
	X2.3	0.859	Valid		
	X2.4	0.855	Valid		
	X2.5	0.853	Valid		
	X2.6	0.829	Valid		
	X2.7	0.849	Valid		
Student Satisfaction	Y1.1	0.810	Valid	0.801	Reliable
	Y1.2	0.835	Valid		
	Y1.3	0.845	Valid		
	Y1.4	0.863	Valid		
	Y1.5	0.907	Valid		
	Y1.6	0.861	Valid		
	Y1.7	0.924	Valid		
Word of Mouth	Y2.1	0.776	Valid	0.806	Reliable
	Y2.2	0.807	Valid		
	Y2.3	0.899	Valid		
	Y2.4	0.838	Valid		
	Y2.5	0.893	Valid		
	Y2.6	0.871	Valid		

**Table 2. Pilot Test towards Validity and Reliability**

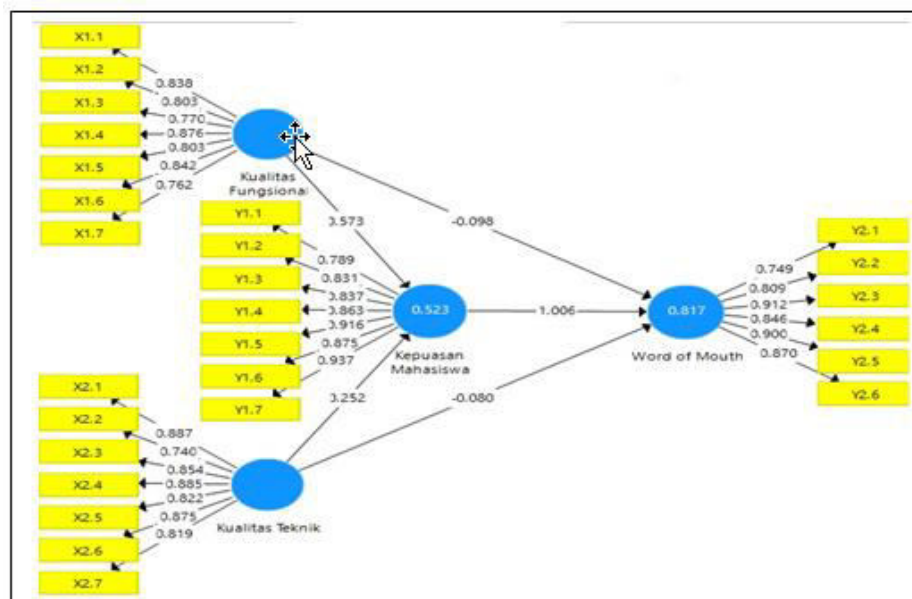
Based on Table 2, the result of instrument validity test shows that all correlation coefficient larger than cut off value of 0.3. It means that all indicator instrument items stated as valid and could be used as data collection instrument in the research. While, reliability test from Cronbach's alpha showed the result that larger than cut off value of 0.6, thus all indicator instrument items stated as reliable and feasible to be used as data collection instrument in the research.

#### 4.2.1. Construct Validity Test

##### a. Convergent Validity Test

Construct validity evaluation performed by computing convergent and discriminant validity. Convergent validity obtained from outer loading. An instrument stated as fulfills the convergent validity test if it has loading factor above 0.6. The result of convergent validity test presented on Figure 2 as follows:

#### 4.2. Assessment Model Evaluation (Outer Model)



Sources: Primary data is processed

**Figure 2. Diagram of Path Coefficient and Hypothesis Test towards Direct Effect**



Based on Figure 2, it is found that outer loading for all items which used to assess functional quality, technical quality, student satisfaction, and word of mouth variable larger than 0.7. Therefore, those items stated as valid to assess the variables.

b. Discriminant Validity Test

Discriminant validity assessed by using cross loading with criteria as follows: if loading value of

an item in a related variable larger than loading value of an item in other variable, then the item stated as valid in the variable assessment. The other discriminant validity test conducted using Average Variance Extracted (AVE) with criteria that it must be larger than 0.5. The result of cross loading presented on Table 3 as below:

Items	Functional Quality	Technical Quality	Student Satisfaction	Word of Mouth
X1.1	<b>0.838</b>	0.453	0.519	0.333
X1.2	<b>0.803</b>	0.429	0.583	0.430
X1.3	<b>0.770</b>	0.480	0.477	0.371
X1.4	<b>0.876</b>	0.406	0.645	0.598
X1.5	<b>0.803</b>	0.251	0.651	0.609
X1.6	<b>0.842</b>	0.348	0.532	0.374
X1.7	<b>0.762</b>	0.256	0.433	0.335
X2.1	0.550	<b>0.887</b>	0.562	0.425
X2.2	0.279	<b>0.740</b>	0.120	0.042
X2.3	0.269	<b>0.854</b>	0.405	0.342
X2.4	0.380	<b>0.885</b>	0.512	0.437
X2.5	0.315	<b>0.822</b>	0.312	0.169
X2.6	0.397	<b>0.875</b>	0.474	0.382
X2.7	0.389	<b>0.819</b>	0.255	0.085
Y1.1	0.656	0.604	<b>0.789</b>	0.578
Y1.2	0.624	0.690	<b>0.831</b>	0.672
Y1.3	0.625	0.282	<b>0.837</b>	0.755
Y1.4	0.528	0.277	<b>0.863</b>	0.812
Y1.5	0.601	0.394	<b>0.916</b>	0.848
Y1.6	0.473	0.421	<b>0.875</b>	0.848
Y1.7	0.659	0.451	<b>0.937</b>	0.897
Y2.1	0.488	0.172	0.681	<b>0.749</b>
Y2.2	0.439	0.208	0.745	<b>0.809</b>
Y2.3	0.527	0.393	0.795	<b>0.912</b>
Y2.4	0.404	0.453	0.766	<b>0.846</b>
Y2.5	0.614	0.457	0.829	<b>0.900</b>
Y2.6	0.362	0.287	0.749	<b>0.870</b>

Table 3. Discriminant Validity Test

Based on Table 3, it shows that cross loading assessment from all items which used to assess functional quality, technical quality, student satisfaction, and word of mouth variable resulted loading value larger than loading value in other variable. Thus, it means that each item able to assess latent variable which related to the item. While, the result of average variance extracted (AVE) value to the functional quality variable was 0.663, technical variable was 0.709, student satisfaction variable was 0.749, and word of mouth variable was 0.721. Therefore, those values showed that the result larger

than 0.5, then, based on average variance extracted analysis, all items stated as valid.

4.2.2. Construct Reliability Test

Analysis that used to test construct reliability in this research was cronbach's alpha and composite reliability. Test criteria in this analysis is that cronbach's alpha values must be larger than 0.6 and composite reliability value must be larger than 0.7 to stated construct criteria as reliable. The result of reliability construct analysis used cronbach's alpha and composite reliability presented on Table 4 as below:

Variable	Cronbach's Alpha	Composite Reliability
Functional Quality	<b>0.916</b>	<b>0.932</b>
Technical Quality	<b>0.935</b>	<b>0.944</b>
Student Satisfaction	<b>0.943</b>	<b>0.954</b>

Word of Mouth	0.922	0.939
---------------	-------	-------

Table 4. Construct Reliability Test

Based on Table 4, the result of reliability construct value in cronbach's alpha and composite reliability towards functional quality, technical quality, student satisfaction, and word of mouth variable shows value that larger than 0.6 and 0.7. It means that all items stated as reliable in assessing latent variable.

### 4.3. Structural Model Evaluation (Inner Model)

#### 4.3.1. Goodness of Fit Model Test

Goodness of fit model used to know ability of endogenous variable in explaining exogenous variable variety or to know contribution of exogenous variable to the endogenous variable. Goodness of fit model in PLS analysis conducted by using Q-Square predictive relevance ( $Q^2$ ).  $Q^2$  based on determination of all endogenous variables.  $Q^2$  has range value of  $0 < Q^2 < 1$ , in which it means the closer to 1, the better of model will be obtained. The result of goodness of fit model test presented on Table 5 as follows:

Variable	$R^2$
Student Satisfaction	0.523
Word of Mouth	0.817
$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)$ $Q^2 = 1 - (1 - 0.523)(1 - 0.817) = 0.913$	

Table 5. Goodness of Fit Model Test

Based on Table 5, it shows that R-square of student satisfaction variable was 0.523 or 52.3%. It means that variety of student satisfaction variable able to be explained by functional quality and technical quality variable for 52.3%; while, the remaining of 47.7% was contribution of other variable that not studied in this research. R-square of word of mouth variable was 0.817 or 81.7%. It

means that variety of word of mouth variable able to be explained by functional quality, technical quality, and student satisfaction variable for 81.7%; while, the remaining of 18.3% was contribution of other variable that not studied in this research. Goodness of fit model on Q-Square predictive relevance ( $Q^2$ ) had value of 0.913 or 91.3%. It means that accuracy or precision of this research model could explain variety of functional quality and technical quality variable to the student satisfaction and word of mouth simultaneously for 91.3% or functional quality and technical quality variable gave contribution to the student satisfaction and word of mouth simultaneously for 91.3%; while, the remaining of 8.7% was contribution of other variable that not studied in this research.

### 4.4. The Result of Hypothesis Test

In hypothesis test, this research used t test to each path of direct and indirect effect through mediation variable. Therefore, this hypothesis test selected in two parts, direct effect and indirect effect through mediation variable. This following is the result of direct effect and indirect effect among variables.

#### 4.4.1. Test of Direct Effect

Direct effect test in this research explained hypothesis 1, hypothesis 2, hypothesis 3, and hypothesis 4. By using test criteria where  $t_{statistics}$  larger than 1.96 ( $\alpha = 5\%$ ) or  $P_{value} < 0.05$ , it showed significant effect from exogenous variable to the endogenous variable in each determined hypothesis. The result of hypothesis test towards direct effect presented on Figure 1 and Table 6 as below:

Hypothesis		Original Sample (O)	(STDEV)/(STERR)	T Statistics $t_{hitung} > 1.96$	P Values	Note
H1	Functional Quality → Student Satisfaction	0.573	0.076	7.545	0.000	Accepted
H3	Functional Quality → Word of mouth	-0.098	0.060	1.621	0.106	Rejected
H2	Technical Quality → Student Satisfaction	0.252	0.072	3.491	0.001	Accepted
H4	Technical Quality → Word of mouth	-0.080	0.046	1.735	0.083	Rejected

Table 6. Hypothesis Test of Direct Effect

Based on Table 6, it shows that hypothesis result, statistically, can be explained as follows:

- a. H1: Functional quality affected to the student satisfaction

There was significant effect of functional quality to the student satisfaction. This result showed by  $t_{statistics}$  value of  $7.545 > 1.96$  or  $P_{value} = 0.000 < 0.05$ . Path coefficient was positive which means it was in the same direction. Thus, it means that the better functional quality will improve student satisfaction. Therefore, hypothesis 1 confirmed in which the better functional quality will improve student satisfaction.

b. H2: Technical quality affected to the student satisfaction

There was significant effect of technical quality to the student satisfaction. This result showed by  $t_{statistics}$  value of  $3.491 > 1.96$  or  $P_{value} = 0.000 < 0.05$ . Path coefficient was positive which means it was in the same direction. Thus, it means that the better technical quality will improve student satisfaction. Therefore, hypothesis 2 confirmed in which the better technical quality will improve student satisfaction.

c. H3: Functional quality affected to the word of mouth

The result showed by  $t_{statistics}$  value of  $1.621 < 1.96$  or  $P_{value} = 0.106 > 0.05$ . This path coefficient was negative which means that it was in contrast,

thus it could be concluded that the better functional quality will not improve word of mouth. Therefore, hypothesis 3 rejected in which the better functional quality will improve word of mouth.

d. H4: Technical quality affected to the word of mouth

The result showed by  $t_{statistics}$  value of  $1.735 < 1.96$  or  $P_{value} = 0.083 > 0.05$ . This path coefficient was negative which means that it was in contrast, thus it could be concluded that the better technical quality will not improve word of mouth. Therefore, hypothesis 4 rejected in which the better technical quality will improve word of mouth.

#### 4.4.2. Test of Indirect Effect

The test of indirect effect explains about exogenous variable to the endogenous variable through mediation variable. In the test of this mediation effect, it was conducted by using additional instrument of sobel test. A variable can be stated as mediation variable seen from the extent of exogenous variable effect towards endogenous variable. The result of hypothesis test towards indirect effect presented on Table 7 as below:

H	Exogenous Variables	Endogenous Variables	Mediating Variables	T Statistics $t_{hitung} > 1.96$	P <sub>value</sub>	Note
H5	Functional Quality	Word of Mouth	Student Satisfaction	7.111	0.000	Accepted
H6	Technical Quality	Word of Mouth	Student Satisfaction	3.454	0.000	Accepted

Table 7. Hypothesis Test of Indirect Effect

Based on Table 7, it presents hypothesis test statistically which can be explained as follows:

a. H5: Functional quality affected to the word of mouth through student satisfaction

This test performed by using sobel test in order to know indirect effect of functional quality to the word of mouth through student satisfaction. The result showed  $t_{statistics}$  value of  $7.111 > 1.96$  or  $P_{value} = 0.000 < 0.05$ . Therefore, hypothesis 5 confirmed in which the better functional quality will improve word of mouth through student satisfaction. In other words, the better student satisfaction from functional quality, the better effect to the word of mouth.

b. H6: Technical quality affected to the word of mouth through student satisfaction

The test was conducted to know indirect effect of technical quality to the word of mouth through student satisfaction. The result showed  $t_{statistics}$  value of  $3.454 > 1.96$  or  $P_{value} = 0.000 < 0.05$ . Therefore, hypothesis 6 confirmed in which the better technical quality will improve word of mouth through student satisfaction. In other words, the better student satisfaction from technical quality, the better effect to the word of mouth.

## 5. Discussion of the Result of the Study

### 5.1. Functional Quality Effect to the Student Satisfaction

The research result showed that functional quality directly affected positively and significantly to the student satisfaction. It means that the better functional quality, the better student satisfaction. This finding was consistent with the research that conducted by Gronroos (1984, 1990); Kangand James (2004); Keong Chee (2006); Lundahl et al., (2009); Afianti (2011); and Keyser and Bart (2014).

Functional quality has assessed to be one important aspect of service. It is an aspect which describes about education staff (employee) ability in giving service to the students and delivery strategy of educator staff (lecturer) in giving good lecture to the students. Functional quality consists of attitude, flexibility, reliability, and trust that obtained by students from educator staff and education staff which responded as service interaction process. Good service attitude, reliable, and able to be trusted by students as well as comfortable towards staff

education and staff educator service would improve student satisfaction. It was due to the service interaction would make the students comfort, satisfy and meet their expectancy to be interacted about all academic information which always be needed from education and educator staff.

During the service process in giving lecture to students from educator staff which conducted in a good way would improve lecture ethics as good as possible according to the responsibility and mandate in order to give lecture and guide the students. Easy lecturer's direction to students would ease them to understand the lecture quickly. Reliable ability of educator staff would be able to give good lecture and direction. The existence of trust in a relationship will keep intimacy between educator staff and students.

During the service process in giving information to students from education staff which conducted in a good way would improve service attitude as good as possible according to the responsibility in order to give service to students. Easy staff's direction to students would ease them to understand the information quickly. Reliable ability of education staff would be able to give good service accurately.

Functional quality that assessed from attitude indicator became respondent's attention in which it showed by average score of questionnaire. The score was higher than flexibility, reliability, and trust or reliance. It indicated that attitude of educator staff and education staff which perceived and perceived in a good way by students would be assessed continually on the level of professionalism and skill towards educator and education staff.

## 5.2. Technical Quality Effect to the Student Satisfaction

The research result showed that technical quality directly affected positively and significantly to the student satisfaction. It means that the better technical quality, the better student satisfaction. This finding was consistent with the research that conducted by Kang and James (2004); Emari et al., (2011); Afianti (2011); Lundahl et al., (2009); and Keyser and Bart (2014).

Technical quality has assessed to be important aspect of service. It is an aspect which describes student perception from the result of service interaction process; an aspect which describes students perception towards service benefit from service provider; as well as an aspect which describes student perception about service that they obtain in a good way to assess education and educator staff performance. The statement above comes as student's thought about the result of service process that given by education and educator staff. Technical quality consists of professionalism

and skills that they obtain and response as fulfillment towards the result of service provider process, operational system, and facility that given by educator and education staff. Professional performance level from an educator or education staff skill by student perception would affect student satisfaction. To know professionalism and skill level, it is viewed as follows: if the students feel pleasure, satisfy, and meet their expectancy about the result of academic information that they get, then every student perception that they created will be a good point for education and educator staff.

Student perception that considered well would improve professional performance of educator staff in giving lecture and supervising students. A lecturer's skill considered as meet the duties and responsibility if he/she gives lecture as with the materials. The implementation of learning method which suitable to the student condition performed due to the lecturer has expectation to the students in order to make them able to mastery the materials appropriately and easily as well as give useful knowledge for the students in the future.

Student perception that been considered well would improve professional performance of education staff in giving service to students. A staff's skill considered as meet the duties and responsibility if he/she gives service as student's needs such as by giving academic information. Student perception about good facility that given by faculty would ease the students in looking for subject materials such as computer practice or looking for subject materials in the library.

## 5.3. Functional Quality Effect to the Word of Mouth

The higher improvement of functional quality would affect to the service quality in order to be involved in word of mouth communication and giving recommendation to other about that good service process (Smith R and Ennew, 2001; Sandy Ng et al., 2011). The finding according to the previous studies had become basic theory to this research in order to give supports about functional quality effect towards word of mouth. Such mentioned by Smith R and Ennew (2001) that service process in Higher Education – giving good service interaction – would affect to the service quality simultaneously in order to be involved in word of mouth communication. It means that functional service quality, directly, might affect word of mouth. However, according to this research analysis result, it showed the opposite effect that functional quality, directly, had no effect to the word of mouth. It means that the better functional quality may not improve word of mouth. Therefore, this research result was different or inconsistent with previous study, however, analysis result in this



research was consistent with the research that conducted by Fanani (2008).

The higher functional quality in giving good, fast, and easy service attitude would create reliable trust from educator and education staff towards student satisfaction; however, it might has no direct effect of recommendation to others. It was due to the students only perceiving temporal satisfaction about service interaction that they obtain from educator and education staff. Thus, the research result of functional quality that had no effect to the word of mouth had created a gap, in which, actually, functional service quality has good relationship to the word of mouth. However, this gap or difference had indicated that functional quality still has no strength in improving word of mouth communication or recommendation to others. As the consequence, this research with students as respondent was still unable to meet expectancy to assess performance process of educator and education staff in giving contribution of good relationship towards word of mouth. In other side, service attitude, service ease, and service reliability from educator and education staff could be tolerated or justified due to functional quality is service process that still can be justified as simultaneously service quality that involved in word of mouth communication. Implication in this research was that functional quality, in actual, still has no strength yet in improving word of mouth, thus it had been indicated that, directly, it had no effect to the word of mouth in Faculty of Economy and Business State University of Gorontalo.

#### **5.4. Technical Quality Effect to the Word of Mouth**

The higher improvement of technical quality would affect to the service quality in order to be involved in word of mouth communication and giving recommendation to other through student perception about good service provider (Fanani, 2008). The finding according to the previous studies had become basic theory to this research in order to give supports about technical quality effect towards word of mouth. As mentioned by Fanani (2008) that technical quality will own better result of student perception if there is interaction and word of mouth communication from the service result as well as able to recommend to others about the Higher Education. Then it means technical service quality directly affected to the word of mouth. However, according to this research analysis result, it showed the opposite effect that technical quality, directly, had no significant effect to the word of mouth. It means that the better technical quality may not improve word of mouth. Therefore, this research result was different or inconsistent with previous study, however, analysis result in this research was

consistent with the research that conducted by Smith and Ennew (2001) as well as Sandy Ng et al., (2011).

The higher technical quality in assessing professional performance and skill level of education and educator staff would give satisfaction to the students; however, it might not affect directly to the student recommendation to others. It was due to the students only perceiving temporal satisfaction about service interaction that they obtain from educator and education staff. Thus, technical quality that had no effect to the word of mouth had created a gap, in which, actually, technical service quality has good relationship to the word of mouth. However, this gap or difference had indicated that technical quality still has no strength in improving word of mouth communication or recommendation to others. As the consequence, this research with students as respondent was still unable to meet expectancy to assess student perception of educator and education staff in giving contribution of good relationship towards word of mouth. In other side, professional performance and skill level of educator and education staff could be tolerated or justified due to technical quality is service that been perceived by students from service interaction which still can be justified as simultaneously service quality that involved in word of mouth communication. Implication in this research was that technical quality, in actual, still has no strength yet in improving word of mouth, thus it had been indicated that, directly, it had no effect to the word of mouth in Faculty of Economy and Business State University of Gorontalo.

#### **5.5. Functional Quality Effect to the Word of Mouth through Student Satisfaction**

The research result showed that functional quality directly affected positively and significantly to the student satisfaction. This finding was consistent with the research that conducted by Gronroos (1984); Kang and James (2004); Keong Chee (2006); Lundahl et al., (2009); Afianti (2011); and Keyser and Bart (2014). While, student satisfaction directly affected positively and significantly to the word of mouth. This finding was consistent with the research that conducted by Arasi et al., (2005); Keong Chee (2006); Chaniotakis (2009); Chang et al., (2012); Kitapaci et al., (2014). Implication from the two findings above directly had good effect to assess service quality simultaneously to be involved in word of mouth communication. However, many previous studies had no idea about indirect effect of functional quality aspect which affected to the word of mouth through satisfaction. Thus, it would give new perspective to develop a new research model in finding the effect of functional quality aspect to the

word of mouth improvement through student satisfaction.

Student satisfaction became one important aspect in functional quality assessment that given by educator and education staff. It is an aspect which describes student satisfaction through the service process such as attitude, ease, reliability, and trust where it will improve the relationship between educator and education staff with students. According to Kotler (2002:61), student satisfaction is student feeling about pleased or disappointed that come from perception or impression towards a service performance that they perceive and the result will be able to predict their expectations. Therefore, student satisfaction would affect both to the education and educator staff if the service interaction process that given to them has been accepted in a good way and meet their expectancy. The implication was that every satisfaction that accepted in a good way would affect indirectly to the word of mouth. It was due to the service process that well accepted would improve student satisfaction, in turns, they would give recommendation to others. Thus, by good student satisfaction, there would be good image, positive conversation about benefits, positive conversation about undergraduate degree superiority, positive conversation about facility and infrastructure in their recommendation in order to persuade others in continuing study at Faculty of Economy and Business State University of Gorontalo.

Good functional quality aspect would meet student expectancy and desire till they perceived satisfaction and pleasure. Students who pleased due to service interaction process would improve satisfaction to the performance of educator and education staff, thus it would lead to the word of mouth recommendation. Therefore, good service interaction process from easy or flexible service attitude would create reliable trust for students which in turns they would feel satisfy and give recommendation to others. The implication was that student satisfaction could mediate the relationship between functional quality and word of mouth at Faculty of Economy and Business State University of Gorontalo.

### **5.6. Technical Quality Effect to the Word of Mouth through Student Satisfaction**

The research result showed that technical quality directly affected positively and significantly to the student satisfaction. This finding was consistent with the research that conducted by Kang and James (2004); Lundahl et al., (2009); Afianti (2011); Emari et al., (2011); and Keyser and Bart (2014). While, student satisfaction directly affected positively and significantly to the word of mouth. This finding was consistent with the research that

conducted by Arasi et al., (2005); Keong Chee (2006); Chaniotakis (2009); Chang et al., (2012); Kitapaci et al., (2014). Implication from the two findings above directly had good effect to assess service quality simultaneously to be involved in word of mouth communication. However, many previous studies had no idea about indirect effect of technical quality aspect which affected to the word of mouth through satisfaction. Thus, it would give new perspective to develop a new research model in finding the effect of technical quality aspect to the word of mouth improvement through student satisfaction.

Student satisfaction always be a good mediation for service quality, especially technical quality aspect and word of mouth that given by educator and education staff. It is an aspect which describes student satisfaction through interaction result that perceived in a good way to assess professional performance and skill of education and educator staff. Therefore, student satisfaction that perceived and perceived would affect both to the educator and education staff if the students have perceived service that they receive in a good way and as with their expectancy as well as could give good feedback to the performance of educator and education staff. The implication was that every satisfaction that accepted in a good way would affect indirectly to the word of mouth. It was due to students who have perceived good service would improve student satisfaction, in turns, they would give recommendation to others. Thus, by good student satisfaction, there would be good image, positive conversation about benefits, positive conversation about undergraduate degree superiority, positive conversation about facility and infrastructure in their recommendation in order to persuade others in continuing study at Faculty of Economy and Business State University of Gorontalo.

Good technical quality aspect would meet student expectancy and desire till they assess a quality from professional performance and skill. Students who have been fulfilled their expectancy would give satisfaction point to the performance of educator and education staff, thus it would lead to the word of mouth recommendation. Therefore, student perception from good service that they obtain would give good assessment towards professional performance and skill of educator and education staff in order to give good service for students which in turns they would give recommendation to others. The implication was that student satisfaction could mediate the relationship between technical quality and word of mouth at Faculty of Economy and Business State University of Gorontalo.

## **6. Conclusion and Suggestion**

## 6.1. Conclusion

Based on the analysis result that been conducted in this research, these followings are conclusions from the research:

- 1) Functional quality directly affected positively and significantly to the student satisfaction. The higher improvement of service process on functional quality would give good effect to the student satisfaction. Therefore, good service process that received from educator and education staff had assessed their service level by giving good attitude, ease of service, service reliability, and good trust. Thus, the service process had given main contribution to service interaction towards the students.
- 2) Technical quality directly affected positively and significantly to the student satisfaction. The higher improvement of student perception about technical quality would give good effect to the student satisfaction. Therefore, the result that been perceived by students from good service interaction that given by educator and education staff had improved their professional performance and skill. Thus, from that student perception, it had given contribution to assess the performance through student's view or perception.
- 3) Functional quality directly had no significant effect to the word of mouth. The higher improvement of service process on functional quality would not affect to the word of mouth. Therefore, good service process that obtained by students from educator and education staff might not be able to improve word of mouth. It was due to directly service process had no effect to improve recommendation willingness which might be caused by less student satisfaction.
- 4) Technical quality directly had no significant effect to the word of mouth. The higher improvement of student perception on technical quality would not affect to the word of mouth. Therefore, good student perception from service interaction that given by educator and education staff might not be able to improve word of mouth. It was due to directly good student perception that had improved professional performance and skill of educator and education staff had no effect to improve recommendation willingness which might be caused by less student satisfaction.
- 5) Functional quality indirectly affected significantly to the word of mouth through student satisfaction. The higher improvement of student satisfaction from functional quality aspect would give good effect to the word of mouth. Therefore, student satisfaction from good service had improved word of mouth and

willingness to give recommendation to others. Thus, high satisfaction from educator and education staff performance had become main aspect towards word of mouth and willingness to give recommendation to others. The word of mouth might be about service interaction process quality including positive image, positive conversation of benefits, positive conversation of undergraduate degree, positive conversation of facility and infrastructure, in which all of that would lead to the recommendation in order to persuade others in continuing study at Faculty of Economy and Business State University of Gorontalo.

- 6) Technical quality indirectly affected significantly to the word of mouth through student satisfaction. The higher improvement of student satisfaction from technical quality aspect would give good effect to the word of mouth. Therefore, student satisfaction from the result that been perceived by students towards good service interaction had improved word of mouth and willingness to give recommendation to others. Thus, high satisfaction from educator and education staff performance had become main aspect towards word of mouth and willingness to give recommendation to others about their perception towards professional performance and skill. Then, by that perception, it could give good image about the benefits and introduce the superiority of undergraduate degree as well as facility and infrastructure where it would lead to the recommendation in order to persuade others in continuing study at Faculty of Economy and Business State University of Gorontalo.

## 6.2. Suggestions

Based on the research result, many important suggestions need to be considered by practitioner or next researcher as follow:

- 1) From analysis result in this research about functional quality and technical quality had given good contribution from service provider process to be perceived by students towards the progress of Faculty of Economy and Business State University of Gorontalo. Student satisfaction that assessed in a good way had given good effect to the Faculty of Economy and Business to maintain and be better in giving service and learning to the students.
- 2) Direct effect from functional quality and technical quality could not create student willingness to do recommendation to others about Faculty of Economy and Business. Therefore, suggestion that can be given to the staff of Faculty of Economy and Business, especially educator and education staff is by

improving the effort to create recommendation willingness from student through better service and learning or lecture in order to be able in introducing image of Faculty of Economy and Business State University of Gorontalo.

- 3) Indirect effect of functional quality and technical quality could create student willingness to give word of mouth communication after the students perceived by satisfaction over the service and learning. Therefore, suggestion that can be given to the staff of Faculty of Economy and Business, especially educator and education staff, is by maintaining the good service to result student satisfaction, which in turns, there will be recommendation willingness of word of mouth in introducing image of Faculty of Economy and Business State University of Gorontalo.
- 4) Suggestion to the next researchers who will take same service model and concept that they need to conduct further research about functional quality and technical quality to the word of mouth. It is due to the previous studies have no idea about simultaneous contribution that own effect to the word of mouth. While, due to research limitation, this research cannot give direct contribution to the word of mouth. Thus, the suggestion is to focus on word of mouth.

## 7. References

- [1] Afianti, Yulia. 2011. Kualitas pelayanan sebagai anteseden kepuasan mahasiswa politeknik negeri malang. *Tesis Fakultas Ekonomi dan Bisnis*, Universitas Brawiaya.
- [2] Arasli H, Smadi S M, and Katircioglu S T. 2005. Customer service quality in the greek Cypriot banking industry. *Managing Service Quality*. Vol 15, No 1, 41-56, 2005
- [3] Arikunto, Suharsimi. 2010. "Prosedur Penelitian Suatu Pendekatan Praktik". Jakarta: Rineka Cipta.
- [4] Chang HH., Jyh D-Jeng fu., Hamid MRA. 2012. Conceptualising consumer word of mouth behaviour intention: evidence from a university education service in Malaysia. *Jurnal Business*, Vol. 7, Issue 1, 17-35
- [5] Chaniotakis, Ioannis, E. and Lympelopoulou. 2009. Service Quality Effect on Satisfaction and Word of Mouth in the health care industry. *Managing Service Quality*, Vol 19, No 2, 229-212.
- [6] Emari H, Iranzadeh S, and Bakhshayesh. 2011. Determining the dimension of service quality in banking industry: Examining the Gronroos's Model in Iran. *Trends in Applied Sciences Research*. vol 6 1. pp. 57-64.
- [7] Fanani, muhammad hasain. 2008. Kualitas Fungsional, Teknik dan reputasi: Pengaruh Terhadap Komunikasi Word of Mouth Pada Institusi Jasa Perguruan Tinggi di Kota Malang. *Tesis Fakultas Ekonomi dan Bisnis*, Universitas Brawiaya.
- [8] Ghozali, Imam., 2001. *Aplikasi Analisis Multivariate Dengan Program SPSS*. Edisi Kedua. Badan Penerbit Universitas Diponegoro, Semarang.
- [9] Ghozali, Imam., 2008. *Structural Equation Modeling Metode Alternatif Dengan Partial Least Square (PLS)*. Semarang: Badan Penerbit Universitas Diponegoro.
- [10] Gronroos, C. 1984. A service quality model and its marketing implications. *European Journal of Marketing*. Vol 18(4), 36-44
- [11] Hair, et al., 2006. *Multivariate Data Analysis*. 6<sup>th</sup> Ed. New Jersey: Pearson Education.
- [12] Hartono, J.M., Abdillah, W. 2009. *Konsep dan Aplikasi PLS "Partial Least Square" Untuk Penelitian Empris*. Yogyakarta: BPFE
- [13] Indonesia, Peraturan Pemerintah Nomor 19 Tahun 2005 Tentang Standar Nasional Pendidikan.
- [14] Indonesia. *Undang-Undang tentang Sistem Pendidikan Nasional*, No.20 Tahun 2003 Bab III tentang Prinsip Penyelenggaraan Pendidikan. Pasal 4 Ayat 6.
- [15] Indonesia. *Undang-Undang tentang Sistem Pendidikan Nasional*, No.20 Tahun 2003 Bab IV tentang Hak dan Kewajiban Warga Negara, Orang Tua, Masyarakat, dan Pemerintah Pasal 1 Ayat 1.
- [16] Jiao Tong, Shanghai University ARWU 2016. *Shanghai Ranking: Academic Ranking of World Universities*, <http://www.shanghairanking.com>. Agustus 2016.
- [17] Kang, Gi-du and James, jeffrey. 2004. Service quality dimension: An examination of Gronroos service quality model. *Managing Service Quality*. Vol.14, No.4. pp.266-277.
- [18] Keong, Cheen. 2006. Word of Mouth: The Effect of Service Quality, Costumer Satisfaction and Commitmen in a Commercial Education Context. *Graduate School of Management*. University of Western, Australia.
- [19] Keyser A.D, and Bart Lariviere. 2014. How Technical and Functional Service Quality Drive Consument Happiness. *Journal of Service Management*. Vol 25, No 1, pp. 30-48.
- [20] Kitapci Olgun, Akdogan C, Dortyol I T., 2014. The impact of service quality dimensions on patient satisfaction, repurchase intention and word of mouth communication in the public healthcare. *Social and behavioural sciences*. Vol 148. 161-169.
- [21] Kotler, p., 2002. *Manajemen Pemasaran Edisi Milenium*. PT. Prehalindo, Jakarta.
- [22] Kuncoro, Mudrajad. 2003. *Metode Riset Untuk Bisnis dan Ekonomi, Bagaimana Menulis Tesis?*. Erlangga, Surabaya.
- [23] Lundahl et al., 2009. Technical and Functional Determinants of Consumer Satisfaction in The Bank-SME relationship. *Managing Service Quality*. Vol.19 No.5. pp.581-594.



[24] Pricewaterhouse Coopers. 2016. *Times Higher Education: World University Rankings*. <http://www.timeshighereducation.com>. Oktober 2016.

[25] Qs. Top. Universities. 2016. *World University Rankings*. <http://www.topuniversities.com/>. September 2016.

[26] Sandy Ng *et al.*, 2011. General Positive Word-of-Mouth in The Service Experience. *Managing Service Quality*. Vol.21 No.2 pp.133-151

[27] Smith R, and Ennew C. 2001. Service quality and its impact on word of mouth communication in higher education. *Research paper series*. The University of Nottingham, Malaysia.

[28] Solimun. 2011. *Metode Kuantitatif untuk Manajemen Bisnis*. Malang: Universitas Brawijaya.

[29] Sugiyono. 2011. *Metode penelitian kuantitatif, kualitatif R & D*. Bandung: Alfabeta.

[30] Tjiptono, Fandy. 2014. *Pemasaran Jasa – prinsip, penerapan, penelitian*. Yogyakarta: Andi.