

The Development of Operant and Operand Service Quality in Higher Education Sector, based on Service Dominant Logic (A Study on Students of B Accredited Management Study Program in a Private Higher Education Government Agency Region VII in Surabaya)

— *Review of* —
**Integrative
Business &
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— *Research* —

Ronald Ronald*
Universitas Pelita Harapan Surabaya
ronald.suryaputra@uph.edu

Amelia Amelia
Universitas Pelita Harapan Surabaya
amelia.fe@uph.edu

ABSTRACT

The education sector is a part of the service industry that has an important role in the development of a country. Higher Education sector has a significant development in the increasing competition in educational aspects, which leads to the need for analysis and learning about the service quality in higher education.

This study used the management study programs on Kopertis (Private Higher Education Government Agency) Region VII in Surabaya with predicate accreditation of B, namely: Narotama University, Ciputra University, 17 Agustus 1945 University Surabaya, Bhayangkara University Surabaya, Pelita Harapan University Surabaya, University of Pembangunan Nasional Veteran of East Java Surabaya, Wijaya Kusuma University Surabaya, Wijaya Putra University Surabaya, and Yos Sudarso University Surabaya. B accreditation explained that the program already has an eligibility in providing higher education, but it needs to be developed to improve the accreditation with predicate of A.

The analysis technique used in this study is SEM (Structural Equation Models). The research used the software AMOS (Analysis of Moment Structure). The questionnaires were distributed to students at universities that have management study programs with B accreditation at Kopertis Region VII in Surabaya. The descriptive data that used were the origins of university, gender and semester level of the students. There were 300 respondents, where the sampling technique is proportional random sampling.

Keywords: Operant and Operand Service Quality, Higher Education, Kopertis Region VII, Management Study Program.

I. INTRODUCTION

The services sector has been developing since 1970 and currently, services play an important role in economic development in different countries (Abdullah, 2006). Based on these conditions, the construct of service quality become an important topic in literature development services (Baron et al., 2009). The existence of good service quality is generally associated with an increase in profitability, customer satisfaction, customer loyalty, and positive word of mouth (Abdullah, 2006; Nadiri et al., 2009; Voss et al., 2007).

The education sector is one of the important industries that has a role in the development of a country. Previous studies of Husain et al., (2009) suggested that a correlation between education and economic growth, as well as the education sector is the ability to provide the development of the human resources. Higher Education sector development further enhance competition in the world of education, this led to the need for analysis and learning about the service quality in higher education. Institutions of Higher Education will benefit through the ability to increase the level of student satisfaction, student satisfaction will provide a competitive advantage for both institutions, in particular will provide a positive word of mouth (File & Prince, 1992), a new consumer (Mittal et al., 1999), decreasing the number of students who moved to another university (Mittal & Kamakula, 2001), and increase financial benefits (Anderson and Mittal, 2000).

Marketing philosophy has developed from goods dominant logic into service dominant logic (Vargo and Lusch, 2004), service companies realize the importance of the role of consumers in the process of creating value. Based on the dominant service logic, service companies must develop more empowering service quality with the participation of consumers. The diversity of consumers made the service process arrangements becomes increasingly difficult and complex. Increased consumer involvement in the process of service will increase the strength of the services of the company to its customers. Forms of active consumer involvement in the co-production in the service describes the process of co-create value which is the basis of the service logic (Grönroos, 2006; Vargo and Lusch, 2004). Vargo and Lusch (2004) describes the service as the process of doing something involving interaction with consumers.

In the development of marketing thinking, fully oriented to consumers is not enough, the organization must learn and collaborate with consumers in value creation to meet complexity requirements (Prahalad & Ramaswamy, 2000). Bendapudi and Leone (2003) states the push to increase customer participation will provide effective competition. The concept of service dominant logic viewed consumers as proactive cocreator and company is a facilitator in the creating value (Payne et al., 2008).

In the longer period of time on service sector, consumers have strong trust on the quality, and the value creation process happens in a personal bond between the consumer with staff or manpower, one of them in the Higher Education sector (Fleming et al., 2005). Consumers who have a good personal relationship with the organization will have a good emotional bond with the organization, and also rationally have high loyalty. Thus, consumers who have a high attachment to the organization is a valuable consumer (emotional, cognitive) (Appelbaum, 2001). The bond towards the university have affective elements, cognitive, behavioral and social (Lutz et al., 2006).

Higher Education sector developments have led towards commercial competition. This is caused by economic boost with the development of the global education market and a decline in funding from the government. This forces the universities to find their own sources of funding (Munteanu et al., 2010).

In the global competition in the Higher Education sector, service quality is the main key to the competition success. Practitioners and academics stated that service quality is a marketing strategy and the strength in the higher education sector's competition (Abdullah, 2006). Holdford and Patkar (2003) states that the dimension of service quality depends on the conditions, so that the different conditions will cause

different dimension to service quality, including the differences in the physical environment. The construct of service quality is constantly evolving constructs (Caruana et al., 2000) and still can not be concluded (Athanasopoulos, 2000). This explains the gap further research to explore the dimensions of service quality. The debate on the best way to explain the service quality in Higher Education is still growing (Becket & Brookes, 2006). Quality in Higher Education is a complex and unique concept (Marshall, 1998).

Indonesian government through Consitution No. 12 In 2012, Article 28, paragraph 3 and article 33 states the importance of accreditation for Higher Education. Accreditation standards of undergraduate study program explains the benchmarks used as a basis to measure and define quality and feasibility of undergraduate study program in performing their programs. Management study program at Kopertis Region VII in Surabaya with A accreditation consists of three study programs (13%), management study program with B accreditation consists of nine study programs (39%), management study programs with C accreditation consists of ten study programs (44%), and two study programs that do not yet have management study programs and have not been accredited by BAN-PT or Private Higher Learning Natioanal Accreditation Agency (Kopertis VII, 2013). This study uses management study program at Kopertis Region VII in Surabaya with predicate of B accreditation. B Accreditation explained that the program already has a feasibility study in higher education, but still had to be developed to improve the accreditation to be A Accredited.

II. LITERATURE REVIEW

2.1 *Service Dominant Logic (SDL)*

Service Dominant Logic (SDL) is a marketing exchange model that has three main characteristics, namely: intangible resources, co-creation value, and relational ties (Vargo and Lusch, 2004). This is a different perspective from the older model stating that the emphasise a model focused and highlight the exchange model that focuses on the tangible resources, embedded value, and transactional relationship. The old perspective is known as the Goods Dominant Logic (GDL). The main difference between SDL with GDL is the main focus used. SDL is focused on service provision (Vargo and Lusch, 2004), while the GDL focused on goods. The service provisions related with the competence used for transformation and integration between operand resources and other operand resources in the process of creating value.

Shifting exchange model deals with the application of resources. The view concept of SDL on resources according to Vargo and Lusch (2004) is divided into two major parts, namely: (1) operand resources in the form of intangible skills that are used to transform and integrate operand resources, usually in the form of dynamic resources namely human knowledge and skills; (2) operand resources in the form of a physical object such as basic materials, land, facilities, and others that are used by the provider, usually in the form of static resources. Service Dominant Logic has a core concept in the exchange service and co-creation value.

2.2 *Service Quality*

Definition of service quality was first proposed by Lewis and Booms (1983) which stated service quality is the extent to which the measurement level of services provided to the consumers. Service quality is a service evaluation given by service

provider and it is formed by consumers during the process of service (Gallan et al., 2013). Service quality is the level of service that is committed towards consumers based on the resources owned by the organization (Lewis and Mitchell, 1990; Dotchin and Oakland, 1994a; Wisniewski and Donnelly, 1996; Seilier, 2004; Zahari et al., 2008).

The consumers' role in services went through changes of view. Consumers are increasingly and actively involved in the creation of value (Grönroos, 2008). A new perspective to the exchange model that focuses on intangible resources (intangible resources) was introduced by Vargo and Lusch (2004). Vargo and Lusch (2004) raised the perspective of service dominant logic. Service dominant logic is marketing exchange model has three main characteristics, namely: focuses on Intangible resources marketing, co-creation value, and relational relationship (Vargo and Lusch, 2004).

This study developed the service quality into two major parts, based on the concept of dominant logic, namely: (1) operant resources, the intangible skills that are used for the transformation and integration of resources operand, generally in the form of dynamic resources namely human knowledge and skills; (2) operand resources, in the form of a physical object such as basic materials, land, facilities, and others are used by providers and generally in the form of static resources (Vargo and Lusch, 2004).

2.3 Operant Service Quality

Service quality is a service evaluation provided by the service provider and formed by the customer during the service process (Gallan et al., 2013). Definition operand service quality based on the definition of Gallan et al., (2013) is the evaluation of the services provided by the service provider in intangible as a whole from an organization. Based on Kang et al., (2002), the essence of operant service quality is service delivering process through a dynamic resource, namely human knowledge and skills. Practitioners and academics stated that service quality is a marketing strategy and the strength in the higher education sector competition (Abdullah, 2006). This study developed operant service quality into 3 dimensions based on the higher education provider (Di'az-Me'ndez and Gummesson, 2012), namely: (1) lecturers; (2) academic staff; (3) support staff.

Therefore, operant service quality can be interpreted as an assessment of the consumer, based on the performance of services in the form of intangible skills that are generally in the form of dynamic resources namely human knowledge and skills. This includes relational exchange of service provider, namely the faculty and staff.

2.4 Operand Service Quality

Service quality is an assessment of a customer or client, based on the overall service performance of an organization (Palli and Mamilla, 2012). Operand definition of service quality based on the definition of Palli and Mamilla (2012) is an assessment of a customer or client, based on the service performance in the form of a physical object as a whole of an organization. Operand service quality focuses on how to provide services to consumers, in the performance of services itself, in the form of physical objects. In this case, the facilities that were provided by the service provider used by the customer.

This explains that operand service quality is also important in creating the exchanges in higher education. The facilities provided by the service provider becomes a support to the process of exchange of knowledge and skills of the higher education provider.

Holdford and Patkar (2003) states that the dimension of service quality depends on the conditions, so that the different conditions will cause different dimension to service quality, including the differences in the physical environment. Operand service quality in this study was developed into a two-dimensional facilities, namely: (1) academic facilities and (2) non-academic facilities.

Therefore, operand service quality can be interpreted as an assessment of the consumer, based on the performance of services in the form of a physical object such as basic materials, land, facilities, and others that are used by provider and generally in a form of static resources facilities which include academic and non-academic facilities.

III. RESEARCH ISSUE AND METHODOLOGY

3.1 Research Issue

The issues that will be studied is the dimension development and service dominant logic indicator in higher education service quality and Management study program's strategy in improving service quality.

The purpose of this study is to evaluate and determine the exact dimensions of service quality and formulate strategies for Management Study Program with B Accreditation at Kopertis Region VII in Surabaya in facing the competition in higher education.

The questionnaires were distributed to 300 students in universities that provide management study program with B accreditation at Kopertis Region VII in Surabaya.

3.2 Methodology

Aras which was used within this research were interval level measurement. Type of scale used was Summated Likert, a statement which has a range from 1 = disagree to 7 = agree, the scale represent the respondents opinion for the questions regarding the objects being studied. In which the highest the score or number selected indicated the higher of ratings, and vice versa.

IV. FINDINGS AND DISCUSSION

4.1 Findings

This study is using SEM to examine the effect between the independent variables towards the dependent variable. Statistical analysis tool used to answer the problem formulation of this research is Amos 16 software. When all primary data has been collected, then the statistical testing can be done.

4.1.1 The Respondents' Description of Undergraduate Management Study Program of Private Higher Education on Gender and Semester Level

Table 1 describes the respondents' description of Undergraduate Management Study Program of Private Higher Education on Gender and Semester Level. Description of respondents showed that most respondents used in the study were students of Management Study Programs at 4th semester with sixty four male

respondents and one hundred female respondents. While the lowest respondents in this study is the 8th semester with six male respondents and eight female respondents

Most male respondents used in this study is derived from STIE (Institute of Economic Science) Mahardika with 16 respondents from 4th semester students and 11 responden from 6th semester students. While for female respondents, the most respondents used in this stude derived also from STIE (Institute of Economic Science) Mahardika with 17 repondents from 6th semester students, and 14 respondents from 6th semester students. The most male respondents from 8th semester students derived from Wijaya Putra University Surabaya and STIE (Institute of Economic Science) Mahardika with each school has two respondents each. While the female respondents of the same semester level derived from STIE (Institute of Economic Science) Mahardika with two respondents.

Table 1**The Respondents' Description of Undergraduate Management Study Program of Private Higher Education on Gender and Semester Level**

Semester Level	Gender						Total
	Male			Female			
	4	6	8	4	6	8	
Private Higher Education							
Narotama University Surabaya	3	1	0	3	2	0	9
Ciputra University	8	10	0	13	9	0	40
17 Agustus 1945 University Surabaya	3	4	0	5	2	0	14
Bhayangkara University Surabaya	3	4	0	3	2	1	13
Pelita Harapan University Surabaya	0	1	0	1	1	0	3
Pembangunan Nasional Veteran Jawa Timur University	6	3	1	6	3	1	20
Wijaya Kusuma University Surabaya	4	7	1	5	8	1	26
Wijaya Putra University Surabaya	6	5	2	6	5	1	25
Yos Sudarso University	4	5	0	5	4	1	19
Mahardika Institute of Economic Science	17	14	2	25	8	2	68
Perbanas Institute of Economic Science Surabaya	6	6	0	16	4	1	33
YAPAN Institute of Economic Science	4	8	0	12	6	0	30
Total	64	68	6	100	54	8	300

Source: Processed Data, SPSS 16 (2015)

4.1.2 Confirmatory Factor Analysis on Operant Service Quality Variable

At this stage of the confirmatory analysis, testing of construct to test the suitability of the model and unidimensionality construct was conducted. Model measurements on confirmatory analysis constructs include two independent variables used in this study, namely operand operand service quality and service quality variable. Results of confirmatory factor analysis of operand service quality can be seen in Figure 1.

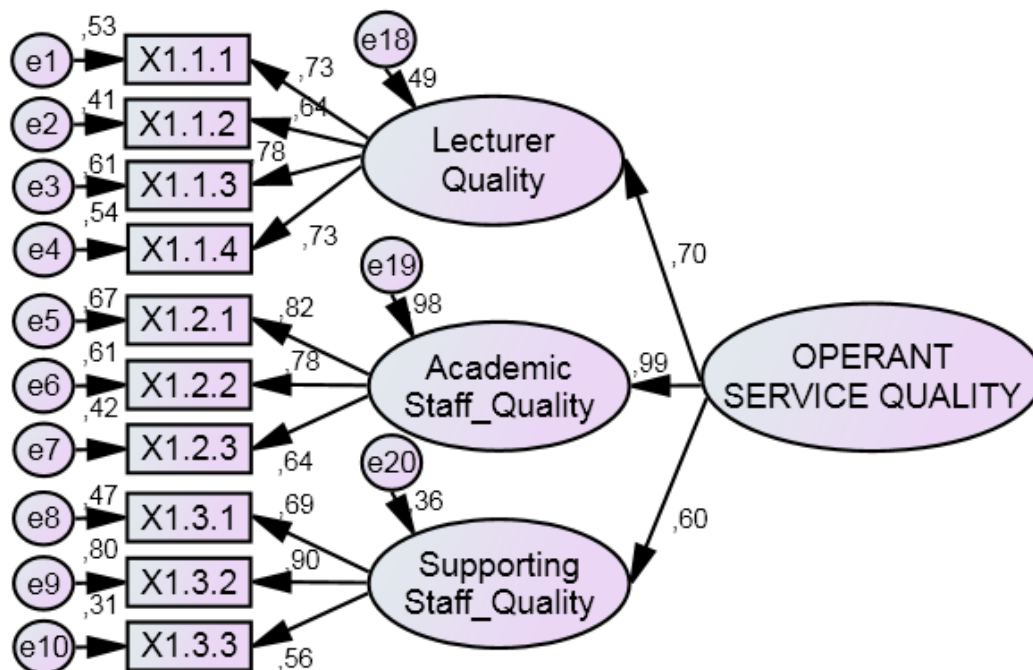


Figure 1. Confirmatory Analysis on Operant Service Quality Variable

Source: Data processing result with Amos program 16.0

The construct model testing results on operand service quality is shown in Table 5.9. Based on the table, it is clear that the loading factor (lambda) for each variable is greater than 0.40. Therefore, these variables represent unidimensionality for each latent variable.

**Table 2. Construct Loading Factor Value on Operant Service Quality Variable
Standardized Regression Weights: (Group number 1 - Default model)**

		Estimate
Lecturer_Quality	<--- OPERANT_SERVICE_QUALITY	,697
Academic_Staff_Quality	<--- OPERANT_SERVICE_QUALITY	,990
Supporting_Staff_Quality	<--- OPERANT_SERVICE_QUALITY	,597
X1.3.2	<--- Supporting_Staff_Quality	,896
X1.3.3	<--- Supporting_Staff_Quality	,557
X1.3.1	<--- Supporting_Staff_Quality	,689
X1.2.2	<--- Academic_Staff_Quality	,780
X1.2.3	<--- Academic_Staff_Quality	,644
X1.2.1	<--- Academic_Staff_Quality	,817
X1.1.3	<--- Lecturer_Quality	,782
X1.1.2	<--- Lecturer_Quality	,637
X1.1.1	<--- Lecturer_Quality	,726
X1.1.4	<--- Lecturer_Quality	,732

Table 3. The Construct Factor Weight Test on Operant Service Quality Variable

		Estimate	S.E.	C.R.
Lecturer_Quality	<--- OPERANT_SERVICE_QUALITY	,327	,033	9,987
Academic_Staff_Quality	<--- OPERANT_SERVICE_QUALITY	,500	,030	16,698
Supporting_Staff_Quality	<--- OPERANT_SERVICE_QUALITY	,337	,040	8,352
X1.3.2	<--- Supporting_Staff_Quality	1,210	,109	11,089
X1.3.3	<--- Supporting_Staff_Quality	,780	,082	9,501
X1.3.1	<--- Supporting_Staff_Quality	1,000		
X1.2.2	<--- Academic_Staff_Quality	1,031	,077	13,456
X1.2.3	<--- Academic_Staff_Quality	1,111	,101	11,008
X1.2.1	<--- Academic_Staff_Quality	1,000		
X1.1.3	<--- Lecturer_Quality	1,159	,096	12,137
X1.1.2	<--- Lecturer_Quality	1,055	,093	11,380
X1.1.1	<--- Lecturer_Quality	1,000		
X1.1.4	<--- Lecturer_Quality	1,472	,128	11,495

Table 3 shows that all values C.R. for observation variable of constructs, namely X1.3.2, X1.3.3, X1.3.1, X1.2.2, X1.2.3, X1.2.1, X1.1.3, X1.1.2, X1.1.1 and X1.1.4 greater than 2.00. Therefore, all these variables significantly are the dimension of latent factors which were formed by themselves. Thus, all the indicators are acceptable.

4.1.3 Confirmatory Factor Analysis on Operands Service Quality Variable

At this stage of the confirmatory analysis, testing of constructs to test the suitability of the model and unidimensionality constructs was conducted. Model measurements on confirmatory analysis constructs include two independent variables used in this study, namely operand operand service quality and service quality variable. Results of confirmatory factor analysis of the operand service quality can be seen in Figure 2.

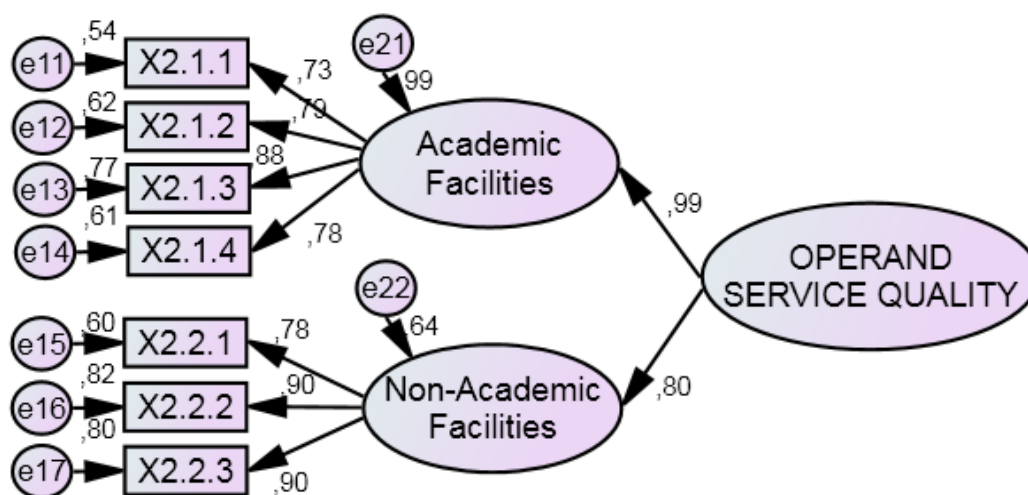


Figure 2. Confirmatory Analysis on Operands Service Quality Variable

Source: Data processing result with Amos program 16.0

Table 4. Exogenous Construct Loading Factor Value on Operands Service Quality Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Academic_Facilities <--- OPERAND_SERVICE_QUALITY	,994
Non_Academic_Facilities <--- OPERAND_SERVICE_QUALITY	,802
X2.1.3 <--- Academic_Facilities	,878
X2.1.2 <--- Academic_Facilities	,786
X2.1.1 <--- Academic_Facilities	,732

		Estimate
X2.1.4	<--- Academic_Facilities	,779
X2.2.2	<--- Non_Academic_Facilities	,905
X2.2.3	<--- Non_Academic_Facilities	,896
X2.2.1	<--- Non_Academic_Facilities	,776

The Construct model test results on operand service quality variables shown in Table 4. Based on the table, it is clear that the loading factor (lambda) for each variable is greater than 0.40. Therefore, these variables represent unidimensionality for each latent variable.

Table 5. Exogenous Construct Weight Test on Operands Service Quality

		Estimate	S.E.	C.R.
Academic_Facilities	<--- OPERAND_SERVICE_QUALITY	,661	,043	15,524
Non_Academic_Facilities	<--- OPERAND_SERVICE_QUALITY	,524	,039	13,282
X2.1.3	<--- Academic_Facilities	1,269	,079	16,118
X2.1.2	<--- Academic_Facilities	1,112	,075	14,811
X2.1.1	<--- Academic_Facilities	1,000		
X2.1.4	<--- Academic_Facilities	1,118	,079	14,202
X2.2.2	<--- Non_Academic_Facilities	1,310	,070	18,716
X2.2.3	<--- Non_Academic_Facilities	1,263	,069	18,400
X2.2.1	<--- Non_Academic_Facilities	1,000		

Table 5 shows that all values C.R. for variable observation of constructs, namely X2.1.3, X2.1.2, X2.1.1, X2.1.4, X2.2.2, X2.2.3 and X2.2.1 are greater than 2.00. Thus, all of these variables are significantly are the dimension of the latent factor are shaped by themselves. Thus, all the indicators are acceptable.

4.2 Discussion

Operand service quality is formed by three dimensions which each dimension significantly explaining the operand service quality variable. Dimensions which have the largest loading lambda coefficient is academic staff quality. The next dimension is lecturer quality and dimension that has the lowest coefficient of lambda loading is supporting staff quality. Academic staff quality's Dimension has a higher coefficient

of lambda loading compared to the lecturer quality, this is because the more relational relationship can be perceived by the students with the academic staff. The lectures are conducted in classes are relatively run simultaneously at the same time. The Lecturers are trying to maintain the prestige and credibility as a lecturer, so that the interaction between students and lecturers is professional.

Academic staff quality can be described as one of the efforts made from the study program to give ease to the student for academic needs. Academic staff quality dimension have the largest loading lambda coefficient because as a student, the closeness with academic administration staff can be achieved better. Everyday, students can perform good interaction with the academic administration staff. This interaction often happen because the task of academic administrative staff deals with the daily life of students, namely, information regarding the schedule, and administrative services. The purpose of this interaction will be achieved if the process can be well communicated.

Supporting staff quality is the third highest from operant service quality. This dimension has the smallest coefficient lambda value compared to other dimensions. The supporting staff in higher education can be explained as a part of non academic student affairs and they are in charge of student activities. Student activities in general facilitate students' interest and capacity in terms of personal development, ability and talent, art and sport, as well as social concerns. Student activities are facilitated and supported by the Student Affairs in accordance with the policies or guidelines that have been set.

Operand service quality has two dimensions, namely, academic facilities and non-academic facilities. Non-academic facilities are in a form of a sports field facilities, Student Activity Clubs, parking facilities, and Bulletin board, has a higher coefficient lambda loading than academic facilities. This is due to the differences between management program study are more than non academic facilities. Students will be more proud of the program study that have great parking facilities or basketball courts compared to a good classroom or comprehensive library. Although not all students will use the non-academic facilities, but the pride of the students on the program study will be better on a study program that has a good non-academic facilities. As a pride, it is obvious for the students, that non-academic course facility is the highest measurement toward the operand service quality.

Thus, because one of the appeals of a college or higher education for students are non-academic facilities. For the students, the academic facilities in all the universities have are similar because there are some basic rules from the Department of Education from the Government that govern them. However, the non academic

aspect, it is possible that there are differences between universities with other universities. The presence of non-academic facilities of course can be special entertainment for the students in the middle of learning process so that the quality of non academic facility can be an important measurement for students.

V. Conclusion, Limitation and Research Extention

5.1 Conclusion

5.1.2 Managerial Implication on Operant Service Quality

(a) *Academic staff quality*, improving academic administrative staff in providing information on schedule clearly and on time. The process of scheduling lectures and selecting the lecturer who will teach related classes should be performed earlier. The acces of information such as class schedules, exams and grades of the students can be done several ways that are most convenient. One way is to divide or to put administrative staff in accordance with their respective duties, ie, class schedules, exams, and student grades. The proper assigned task and job description should e done to make the information needed can be acquired easily and definite. Information on fixed class and exam schedules, even if there is any changes, can be informed through a "digital newsboard". In addition, good coordination is also needed between academic staff with lecturers who teach, both full time lecturers and part-time lecturers. Any changes to the schedule made by the lecturer can be directly informed to the academic staff, which in end, it can be immediately informed to the students, either directly or via digital newsboard;

(b) Quality lecturer, the lecturers should try to compile the tutorial schedules as adaptable as possible with the schedule of other lecturers. Also, if there is a change in schedule, the lecturer is expected to inform this changes to the students before the semester starts. Lecturers are also expected to be able to use technological support in providing videos and physical props to make the classroom material more easily understood and intereting to learn. Also, a lecturer can develop two-way communication between students and lecturers. Students are given the freedom to express their opinions and discuss freely about the lecturing material. Also, the concept of the guest lecturers or practitioners come to present related material to further expand the horizons of students in terms of what is happening in the real work settings. In addition, the increase in the lecture material can also be carried out in the presence of a field study to bring students directly to the factory or indstry to find out the real use of the theories that have been discussed in the lecture.

Lecturers must also have clear standards in terms of assessment and it should be explained at the beginning of the semester so that students already have knowledge

of the assessment process will be like. In addition, assessment standards should be explained and be given to the student in writing or syllabus at the beginning of the semester. By providing a syllabus at the beginning of the semesters, the students are expected student to understand clearly the grading standards and how to get the best grade. This way, by the time of announcement of the results of the assessment, students can equally give a fair assessment that lecturers in delivering grade;

(c) Supporting quality staff, student affair staff should be able to provide friendly and quick services to students. Student affairs staff should also create interesting non-academic activities and aware of the needs of students at non-academic activities, also provide awareness that involving in non academic activities is important. In addition, the student affair staff should always ensure compatibility between non-academic activities offered to students with talents and interests of students today. Periodic training and discussion should be made to staff and faculty so that the needs of the student can be properly fulfilled.

5.1.3 Managerial implications on Operands Service Quality

(a) Academic facilities, repairing and improving library facilities by adding the collection and availability of books, journals, and supporting articles. Libraries also must be designed to have a reading room for individuals or groups, so that students can concentrate and focus better. Libraries should also have recreational facilities, ie there are collections relating to the culture of Indonesia and other countries, also has a multimedia room and a relaxation room. The study program must maintain the condition of the existing classrooms by maintaining the cleanliness and making sure classrooms are always in a comfortable state. In addition, the availability of equipment such as air conditioner remote and overhead projector remote and also other supporting tools such as markers, whiteboard, erasers, and others are also important in ensuring the learning activities in the classroom running smoothly;

(b) Non-academic facilities, maintain and properly maintain the available bulletin board. This can be developend into more than just a bulletin board. It can be made "digital newsboard" that automatically update the information that needs to be posted can be easily seen. Another thing is to be more focused in developing adequate parking facilities and also providing facilities that support the sports field, and maintain the quantity and the quality of students' activity club.

5.2 Limitation and Research Extension

There are several limitations within this research. Firs, this research only use limited sample in Kopertis Region VII. It also can be concluded that researchers and

strategists need to consider other issues relating to other factors rather than service quality. In further research, it is expected to increase the sample used in order for the data to be more generalized.

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REFERENCES

- [1] Abdullah, Firdaus. (2006). Measuring Service Quality in Higher Education: HEDPERF versus SERFPERF, *Marketing Intelligence & Planning*, Vol. 24, No. 1, 31-47.
- [2] Anderson, E., and Mittal, V. (2000), "Strengthening the Satisfaction-Profit Chain", *Journal of Service Research*, Vol. 3, No. 2, pp. 107-20.
- [3] Appelbaum, A. (2001). The constant consumer. *Gallup Management Journal*. Available at <http://gmj.gallup.com/content/745/Constant-Customer.aspx>. [Accessed 15 February 2014].
- [4] Athanassopoulos, A, D. (2000). Customer Satisfaction Cues to Support Market Segmentation and Explain Switching Behavior. *Journal of Business Research*, 47, 191-207
- [5] Becket, N., & Brookes, M. (2006). Evaluating Quality Management in University Departments, *Quality Assurance in Education*, 14(2), 123 – 142.
- [6] Bendapudi, N., & Robert P, L. (2003). Psychological Implications of Customer Participation in Co-Production. *Journal of Marketing*, 67(1), 14 - 28.
- [7] Berg, G, A. (2005). *Lessons from the edge: For-profit and nontraditional higher education in America*. Westport, CT: Praeger.
- [8] Brown, S, W. & Bitner, M, J. (2007). Mandating a service revolution for marketing. in Lush, R.F. & Vargo, S.L. (Eds). *The Service-Dominant Logic of Marketing: Dialog, Debate and Directions* (pp. 393-405). Armonk, NY: M.E. Sharp.
- [9] Caruana, A., Money, A, H., & Berthon, P, R. (2000). Service quality and satisfaction- the moderating role of value. *European Journal of Marketing*, 34. (11/12), 1338-1352.
- [10] Chumpitaz, R., & Swaen, V. (2002), "Relationships Between Quality and Satisfaction in Business-to-Business: Analyses in Six European Countries", In William J. Kehoe and John H. Lindgren Jr. (Eds.), *AMA Educators' Proceedings: Enhancing Knowledge Development in Marketing*, Vol. 13, August 3-6, San Diego, USA, pp. 225-226.
- [11] Cronin, J, A, J., & Taylor, S, A. (1992), 'Measuring service quality: a re-examination and extension', *Journal of Marketing*, vol. 56, no. July, pp. 55-68.

- [12] File, K, M., & Prince. R, A. (1992). Positive word-of-mouth:Customer satisfaction and buyer behavior. *International Journal of Bank Marketing* 10 (1), 25 - 29.
- [13] Fleming, J, H., Coffman, C., & Harter, J, K. (2005). Manage Your Human Sigma, *Harvard Business Review*, vol. 83, no. (July-August), 107-114.
- [14] Gammie, A. (1992). Stop at nothing in the search for quality. *Human Resource*, 5(Spring), 35-38.
- [15] Gronroos, C. (2008). Service logic revisited: who creates value? And who co-creates? *European Business Review*, 20(4), 298 – 314.
- [16] Hill, Y., Lomas, L., & MacGregor, J. (2003), Students' perceptions of quality in higher education. *Quality Assurance in Education*, Vol.11 No.1,15 - 20.
- [17] Holford, D., & Patkar, A. (2003). Identification of service quality dimensions of pharmaceutical education. *American Journal of Pharmaceutical Education*, 67(4).
- [18] Husain, F., & others. (2009), "Education Service Delivery and Students' Satisfaction: A Study of Private Colleges in Malaysia" *Global Business and Management Research: An International Journal*, Vol. 1, No. 1, PP. 64-72.
- [19] Jain, R., Sinha, G., & De, S, K. (2010). Service Quality in Higher Education: An Exploratory Study. *Asian Journal of Marketing*, 4: 144-154.
- [20] Leonard, F, S., & Sasser, W, E. (1982). The incline of quality. *Harvard Business Review*, 60(5), 163-171.
- [21] Lutz, S, L., John, T, G., & Marcia, H, D. (2006). Scaffolding for Engagement in Elementary School Reading Instruction. *Journal of Educational Research*, 100 (1), 3–20.
- [22] Marshall, G, W., Julie, B., & David, W, F. (1998), "Exploring Internal Service Quality," *Journal of Business and Industrial Marketing*, 13 (4/5), 381-392.
- [23] Martin, A., O'Neill, & Adrian, P. (2004) "Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education", *Quality Assurance in Education*, Vol. 12 Iss: 1, 9 – 52.
- [24] Mittal, V., & Kamakura, W. (2001), "Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics", *Journal of Marketing Research*, Vol. 38, No. 1, pp. 131-42.
- [25] Mittal, V., Kumar, P., & Tsiros, M. (1999), "Attribute-Level Performance, Satisfaction, and Behavioral Intentions Over Time: A Consumption System Approach", *Journal of Marketing*, Apr, 1999, Vol. 63, Issue.2, pp.88-101.
- [26] Munteanu, C., Ciprian, C., Claudia, B., & Oana, A. (2010). An Analysis of Customer Satisfaction in a Higher Education Context. *International Journal of Public Sector Management*, Vol. 23, No. 2, 124-140.
- [27] Nadiri, H., Jay, K., & Kashif, H. (2009). Students' Perceptions of Service Quality in Higher Education, *Total Quality Management*, Vol. 20, No. 5, 523-535.
- [28] Palli, J, G., & Rajasekhar, M. (2012). Students' Opinions of Service Quality in the Field of Higher Education. *Scientific Research, Creative Education*, vol. 3 No. 4, 430-438.
- [29] Payne, A, F., Kaj, S., & Pennie, F. (2008). Managing the Co-Creation of Value. *Journal of the Academy of Marketing Science*, 36(1), 83 - 96.
- [30] Prahalad, C, K., & Ramaswamy, V. (2004). *The Future of Competition: Co-Creating Unique Value with Customers*, Boston, MA: Harvard Business School Publishing.

- [31] Sharabi, Moshe. (2013). Managing and improving service quality in higher education. *International Journal of Quality and Service Sciences*. Vol 5 No.3. 309-320.
- [32] Sureshchander, G, S., Rajendran, C., & Anatharaman, R, N. (2002). The relationship between service quality and customer satisfaction: a factor specific approach. *Journal of Service Marketing*, 16(4), 363-379.
- [33] Van Kemenade, E., Pupius, M., & Hardjono, J, W. (2008). More value to defining quality. *Quality in Higher Education*, 14, 175-185. doi:10.1080/13538320802278461
- [34] Vargo, S, L., & Lusch, R, F. (2004), Evolving to a New Dominant Logic for Marketing, *Journal of Marketing*, 68(1), 1-17.
- [35] Voss, R., Gruber, T., & Szmigin, I. (2007). Service quality in higher education: The role of student expectations. *Journal of Business Research*, 60 (9), 949 – 959.