

Service Dominant Logic: Is there a recipe for customer loyalty in the Higher Education?

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Presented at: SIBR 2017 (Osaka) Conference on Interdisciplinary Business and Economics Research, 6th - 7th July 2017, Osaka, Japan.

ABSTRACT

One of the important role in economic development is service sector. It has an important role in in many countries and it becomes one of the growing service sectors, especially in education service sector. Higher Education sector has developed rapidly and it increased the world of education's competition. This has led to the need for analysis and learning about students' loyalty. This study develops the concept of service quality and concept of customer engagement in higher education base on service dominant logic. This deepens the concept of relational exchange with the consumers' emotional attachment to the management or the education provider.

Operant resources are the fundamental source of strategic benefit, also value is co-created by multiple actors and coordinated through actors-generated institutions and institutional arrangements. Future research may consider any other combinations and explore how the impact of changes in the antecedent of customer loyalty when other variables are used.

Keywords: Customer Loyalty, Higher Education context, Customer Satisfaction, Customer Engagement, Service Quality, Service Dominant Logic Theory.

I. Introduction

The service sector had some developments since 1970, and currently, the services has an important role in economic development in various countries (Abdullah, 2006). The service quality construct based on this condition becomes an important topic in the services development literature (Baron et al., 2009). 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 part of the service industry that has an important role in the development of a country. The previous study from Husain et al., (2009) suggested a correlation between education and the economic growth. Education sector will also be able to provide development of the human resources. Higher education is a part of the education sector. Higher Education sector has been developing and it increases the education competition aspect. This has led to the need for analysis and learning of the student's satisfaction and loyalty in higher education. Higher education institutions will benefit through the ability to increase the satisfaction level of the students. The student's satisfaction will give a good competitiveness for the institution, and in particular, will give positive word of mouth (File and Prince, 1992), new customers (Mittal et al., 1999), decrease the desire of consumers to switch (Mittal and Kamakula, 2001), and increase financial profits (Anderson and Mittal, 2000).

The development of the Higher Education sector has led to the commercial competition. This competition is caused by an economic boost to the development of the global education market and a decline in funding from the government. This forces the higher education providers to find their own funding sources (Munteanu et al., 2010). Many higher education, in the long term, prefer to be more focused on internal academic needs rather than paying attention to the needs and wants of the students, as the main consumers. This is due to the demand for higher education much higher than higher education has to offer. However, the development of the number of higher education is offered within two decades, caused the growing competition in higher education. (Sharabi, 2013).

Higher Education Institutions has experienced development that caused the growing service sector more dynamic and evolving, and also the needs and expectations of consumers has increased. Competition in Higher Education institutions can begin to focus on the needs of its customers. Consumers should become the central focus in the strategy undertaken by the organization to be able to compete for consumers (Sharabi, 2013).

The services sector suggests that the process of production and consumption can not be separated. So that the quality of services are not only depend on the end result, but also the process during the services performed (Sureshchander et al., 2002). This has led to the sustainability of the development dimension of service quality in higher education needs to be constantly developed. Another aspect is the development of the measurement of students satisfaction based on dimensions of quality are relevant for developing Higher Education system (Martin and Palmer, 2004; Van Kemenade et al., 2008; Sharabi , 2013).

The discussion of the concept that can replace quality still cannot be found on the higher Education sector, although previous research was conducted to find the concept (Hill et al., 2003; Abdullah, 2006). This issue can still create a large area to be explored on service quality, especially in the sectors of education services (Berg, 2005; Munteanu et al., 2010; Jain et al., 2010).

Previous researchers stated that a good service quality will further improve customer satisfaction, so to improve the customer satisfaction, service quality becomes an important variable to consider. (Gallan et al., 2013; Salam et al., 2013; Xu et al., 2013; Temizer and Turyilmaz, 2012; Sultan and Wong, 2012; Zafar et al., 2012; Hu 2011; Rahaman et al., 2011; Kuo et al., 2009; Kuo and Ye, 2009; Omar et al., 2009; Helgesen and Nasset, 2007). Several other researchers provided different research results, stating that service quality does not have a significant effect in improving customer satisfaction (Dib and Alnazer, 2013; Bawa et al., 2013; Kheng, 2010; Lai et al., 2009; Haemoon, 1999). However, the exploration and study needed to be done for the further research to know the answers to these differences.

The variable of customer loyalty for this study can be used for further research in the development of a model to explain the research gap that occurs. This is supported by several previous investigators stating that the service quality, the value of consumer, and customer satisfaction is the antecedent to customer loyalty (Forgas et al., 2010; Mattila, 2004; Singh and Sirdeshmukh, 2000; Morgan and Hunt, 1994).

II. Literature Review

1. Applying Service Dominant Logic Theory to Service Quality within the Higher Education Context

The role of consumers in services sector is experiencing a change of view. Consumers are getting actively involved in the creation of value (Grönroos, 2008). A new perspective towards the exchange model that focuses on intangible resources was introduced by Vargo and Lusch (2004). Vargo and Lusch (2004) put forward the perspective of service dominant logic that continues to be developed until the year of 2016 which is an axioms and update form service dominant logic (Vargo and Lusch, 2016).

Service dominant logic is a marketing exchange model in achieving value co-creation that focuses on actors in the form of intangible resources, resource integration, service exchange, institutions and institutional arrangements and service ecosystems (Vargo and Lusch, 2016). For comparison, the older perspective exchange model is more focused on the tangible resources, embedded value, and a transactional relationship. The older perspective on the exchange model is known as the Goods Dominant Logic (GDL). The main difference between the two perspectives are on the

main focused used. SDL focuses on service is the fundamental basis of exchange (Vargo and Lusch, 2016), while GDL focuses on goods. Operant resources are the fundamental source of strategic benefits. Also value is co-created by multiple actors and coordinated through-generated actors institutions and institutional arrangements (Vargo and Lusch, 2016)

The shift from GDL to SDL is involved the application of resources. The thinking concept of service dominant logic of the resources according to Vargo and Lusch (2004) is divided into two major parts. The first one is operand resources, which is the form of a physical object such as basic materials, land, facilities, and others. These resources were used by the actors and generally in the form of static resources. The second one is operant resources, which is the intangible skills that are used for the transformation and integration of operand resources. This generally in the form of dynamic namely human resources knowledge and skills. Service dominant logic has a core concept of the exchange service and co-creation of value. Exchange service describes the exchange process is done is singular and more emphasis on the exchange of knowledge and skills (Vargo and Lusch, 2006). In the concept of SDL, goods used only as a tool for operant, goods is an intermediate product used by operant resources as a tool in the process of value creation

Marketing, from the philosophy standpoint, evolved from the goods dominant logic into service dominant logic (Vargo and Lusch, 2004), service companies realize the importance of the consumers' role in the process of value co-creation. Value co-creation is coordinated through actor-generated institutions and institutional arrangements (Vargo and Lusch, 2016). Based on the service dominant logic, service companies should develop more empowering service quality with the participation of consumers. The Involvement of active consumer in the co-production in the service describes the process of value co-creation which is the basis of the service logic (Grönroos, 2008; Vargo and Lusch, 2016). Vargo and Lusch (2004) describe the service as the process of doing something involving interaction with consumers.

The implication of a service dominant logic and resource integration area is that none of the actor has all necessary resources to create value. Instead, value creation is a joint function of the service provision of multiple actors, as integrated by the beneficiary. It means that resource integration provides the means for the development of competences used in service provision, both for the actors themselves and for the others (Lusch & Vargo, 2014). Value co-creation is coordinated through actor-generated institutions and institutional arrangements. Value is always uniquely and phenomenologically determined by the beneficiary (Vargo & Lusch, 2016).

The theory of Service Dominant Logic (SDL) becomes the basis and the development for this research. This theory has the perspective on the application

resources into two parts, namely: operand resources, in the form of a physical object that describes the search quality, and operant resources, in the form of intangible skills that explain the experience quality and credence quality (Lusch & Vargo, 2014). Service Dominant Logic has a central concept of co-creation value, which view resources as what actors can draw on for support. Actors themselves are “operant resources” when they apply their resources (knowledge and skills) to provide service (Lusch & Vargo, 2014). The research gap between service quality and customer satisfaction will be focused on creating the concept of perceived value in the Service Dominant Logic is customer engagement.

2. A configuration model of customer loyalty using customer satisfaction, customer engagement, operant and operand service quality

Previous researchers stated that a good service quality will further improve customer satisfaction, so service quality is an important variable to consider in improving customer satisfaction (Gallan et al., 2013; Salam et al., 2013; Xu et al., 2013; Temizer and Turyilmaz, 2012; Sultan and Wong, 2012; Zafar et al., 2012). The results of different studies stated that service quality is not significant in increasing customer satisfaction (Dib and Alnazer, 2013; Bawa et al., 2013; Kheng, 2010; Lai et al., 2009). The gap raises the need to do further exploration to acquire theoretical and practical concepts. The gap of this study needed to be filled in the development of the Service Dominant Logic theory (SDL) which has the perspective of application resources into two parts. They are operand resources in the form of physical objects and operant resources in the form of intangible skills (Vargo and Lusch, 2004). In this study, service quality developed into two variables operand service quality and operant service quality. Service Dominant Logic has a central concept of co-creation value. Research gap between service quality and customer satisfaction are trying to be filled with creating value in the concept of SDL which is customer engagement.

Elliot et al., (2002) stated that student satisfaction is a complex phenomenon, but it is important to be observed by the university to build long lasting relationships with the students. So it can be said that the student satisfaction is very closely related to the customer satisfaction or even can identical because it can be assumed that students are considered and treated as customers.

Student satisfaction is the fulfillment of the expectations and the needs of customers, or in this case, the students (DeShields et al., 2005). Universities should be able to understand the needs of the students, modify and improve the service provided. This needs a thorough understanding of the target market, including the students, and the external and internal stakeholders.

Brodie et al., (2011) developed the fundamental propositions of customer

engagement, namely: (1) Customer engagement, which is a psychological state that occurs based on experience with the organization in relation to certain services; (2) Customer engagement, occurs in a dynamic process, repetitive relation to the services in co-creating values; (3) Customer Engagement, which plays a central role in the network of the service relationship; (4) Customer Engagement, which is a multi-dimensional subject to the context or the expression of a particular party in the dimension of cognitive, emotional, and behavioral relevant; (5) Customer engagement occurs in a set of specific situational conditions that will generate different levels of attachments.

Vivek et al., (2012) defines customer engagement as the intensity of an individual in participating the activities of the organization and has a good relationship with the activities of the organization. Customer engagements have elements of cognitive, emotional, behavioral, and social. Vivek et al., (2012) stated that customer engagement is a combination of behavioral responses and emotional context. Emotional context stated is the confidence and trust, and commitment, while the behavioral contexts are more in explaining the action taken.

Students engagement is the extent to which the quality of students' efforts towards a meaningful learning activities (Hu 2010). Student engagements can be defined as students' academic investments, motivation and commitment to the existing educational institutions, the perception of psychological attachment, comfort and a feeling of belonging to the institution. So that the students engagements are involving institutional aspects, situational, and individual (Bryson & Hand, 2007).

Breidbach et al., (2014) described interactive touch points can stimulate engagement, as customers and employees come to expect interactions for ideal configuration of their engagement ecosystem with respect to facilitating customer engagement and co-creation processes. This particular challenge for researcher to know and understand the specific "engagement" with its antecedents and consequences when implementing engagement in a certain ecosystems. Engaged customers can play a key role in organizational collaborative development and innovation processes (Sawhney et al., 2005).

This research is focused on customer loyalty variable and it can be used for a further research in the development of a model to explain the different results of the research. This is supported by several previous researches that stated that service quality and customer satisfaction are the antecedents to customer loyalty (Forgas et al., 2010; Mattila, 2004; Singh and Sirdeshmukh, 2000; Morgan and Hunt, 1994). An increase in customer satisfaction in higher education can influence customer loyalty. This can be seen by comparing the experiences of the students with their expectations.

An increase in customer engagement in the higher education with students'

assessment can affect the customer loyalty. This can be done through frequent interaction of students with the study program. This interaction strengthens the students' emotional connection, psychological and participation in the process of value co-creation. Students who have a certain attachment to the study program are motivated to communicate with study program really well. This can be seen through the faculty and staff, feeling of belonging study programs, enjoying the services given by study program, and the good assessment of the study program that will further increase the loyalty of the students to the study program. Customer loyalty is influenced by a development in service quality in the higher education through student assessment of the service quality of the study program.

Customer satisfaction in this study is influenced by customer engagement. Students who have an attachment to the study program will tend to do the following, motivated to communicate well with study program through the faculty and staff, feeling of belonging study programs, services given study program, and have a good assessment of the course of study will further improve the satisfaction of the students to the study program. This is because the students who already have a good relational relationship with the study program will be more easily satisfied.

Customer satisfaction in this study is also directly influenced by operand and operant service quality. A better service quality of the study program will directly make students satisfied with the study program, satisfied compared to other study programs, satisfied with the quality relative to the costs incurred, satisfied with the performance of study program's services, and felt that this study program is a good study program.

Customer engagement in this study is directly affected by the operand service quality, while the influence of operand service quality to customer engagement is not proposed in this study. This explains that customer engagement created, through relational relationship among actors in the education services sector, namely the relational between faculty, staff and students, is in the process of value co-creation.

III. Research Issue and Methodology

3.1 Data Collection, survey development and sampling

This study used all the undergraduate study program with A and B accreditation on private universities in Surabaya, Indonesia. This research is not grouped based on accreditation level, because the accreditation level is a government evaluation based on standardized formal structure, while this research is conducted focus more on customers such as the students.

Based on the data from the Kopertis or the Government Agency for Cooperative Private Universities region VII in 2013, there are 24 universities and 11

institutes that offer undergraduate management study program in Surabaya, Indonesia. Four management study programs were A accredited (11.43%), followed by twelve management study programs that had B (34.29%), fourteen management study programs with C (40.00%), and five management study programs who do not have accreditation or the accreditation is not valid yet (14.28%) (BAN-PT, 2014).

Stratified random sampling for proportional data:

The total population is based on the total number of the undergraduate management study program of private higher education in Surabaya in 2013. Based on EPSBED data on spring semester of 2012, the population was around 18,840 students (Kopertis VII, 2013). The study used the management study program in Surabaya with A and B accreditation, totaling 16,276 students. The students who were enrolled at least one year are around 11,373 students. The sampling technique used was stratified random sampling for the proportion of data (have now, 2003). The stratified random sampling for the proportion of data is as follows:

$$n = \frac{z_{1-\alpha/2}^2 \sum_{h=1}^L \frac{N_h^2 P_h (1-P_h)}{W_h}}{\left[N^2 d^2 + z_{1-\alpha/2}^2 \sum_{h=1}^L N_h P_h (1-P_h) \right]} = 375,3018$$

The total number of samples used in the study is around 376 samples. The management study program in A accredited private universities in Surabaya was 31% (117 samples) and management study program in B accredited private universities in Surabaya was 69% (259 samples).

3.2 Measurement of Variables

The survey was divided into two main sections. Section A evaluated the demographic characteristics of respondents such as names, genders, and semesters. Section B contained 5-point Likert scales devised to understand the customer loyalty, customer satisfaction, customer engagement, operant, and operand service quality. Customer loyalty was measured using six scale items from Helgesen and Nettet (2007), and Hennig-Thurau et al., (2001). Customer satisfaction was measured using five scale items from Sultan (2011), Gallan et al., (2013) Kuo et al., (2009), and Helgesen and Nettet (2007). Customer engagement was measured using five scale items from Vivek (2009), London et al., (2007), Mathew et al., (2005). Operant service quality has three dimensions, which are: Lecturer Quality was measured using four scale items from Ronald and Amelia (2014); Academic Staff Quality was

measured using three scale items from Ronald and Amelia (2014); and Supporting Staff Quality was measured using three scale items from Ronald and Amelia (2014). Operand service quality has two dimensions, which are: Academic Facilities was measured using four scale items from Ronald and Amelia (2014); and Non-Academic Facilities was measured using three scale items from Ronald and Amelia (2014).

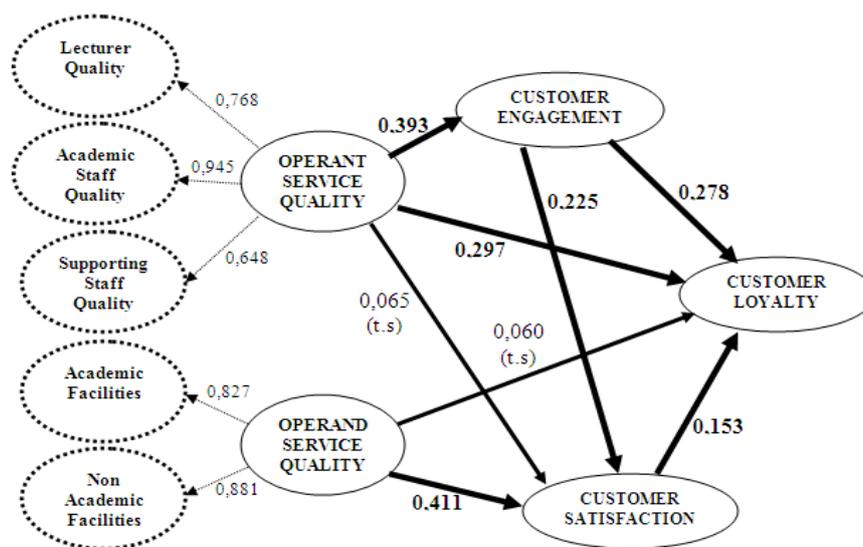
IV. Findings and Discussion

4.1 Reliability and Validity

Reliability was satisfied for all scales with alpha values ranging from 0.7658 to 0.8919. In aggregate, the result support unidimensionality construct. In addition, confirmatory factor analysis (CFA) was performed to test the measurement model using AMOS 21.0, only one item was dropped due to low lambda loading coefficient for supporting staff quality dimension. The model fit indices were RMSEA = 0.035, GFI = 0.909, TLI = 0.965, CFI = 0.970. Based on these observations, measurement model fit was considered acceptable (Hu & Bentler, 1999).

4.2 Research Results and Discussion

The respondents' description described that 186 respondents were male and 190 respondents were female. The largest number of respondents used in the study were the students from management study program in their fourth semester. The number of male respondents were 91 respondents and the number of female respondents were 100 respondents. While respondents with the lowest number in this research were the respondents in their eighth semester, with 16 male respondents and 12 female respondents.



Based on the perspective of Service Dominant Logic, institutions should take

an expanded role. The institutions' Service Dominant Logic orientation achievements and institutional arrangements provide policy makers a practical perspective for comprehending and understanding continuous and discontinuous innovation (Vargo & Lusch, 2016). Based on the results of the study, the operant and operand service quality is one aspect that needs to be focused by the higher education provider.

Operand service quality has two dimensions, namely: academic facilities and non-academic facilities. Non-academic facilities could be seen in physical aspect, such as, sport field facilities, student activities units, parking facilities, and the bulletin boards. This dimension has a higher lambda loading coefficient than the academic facilities. What really differentiate between management study program with the other study programs are more than non-academic facilities and that becomes the main reason. Students will be more proud of the study programs that provide large parking facilities or good basketball courts compared to complete classroom facilities or even a comprehensive library. Although not all students will take advantage of non-academic facilities, but the students' sense of pride on the study program will be better on the study program that has a good non-academic facilities.

It is obvious that the non-academic facility is the biggest measurement to the operand service quality and that is something to be proud of by the students. The main reason is that the attractiveness for of a college students are the non-academic facilities. For students, the academic facilities in all the universities are perceived similar because there are standard rules of the Higher Education that govern them. However, in non-academic facilities there might be some differences among universities. The existence of non-academic facilities can be clasified as an "entertainment" for the students in spending their time in between classes or their free time. So the quality of non-academic facilities could be an important measurement for the students.

Table 1. Result for Structural Equation Model

	Std. estimate	CR	Prob.	Hypothesis
<i>Operant Service Quality</i> → <i>Customer Engagement</i>	0,393	5,99	0,000	Accepted
<i>Operant Service Quality</i> → <i>Customer Satisfaction</i>	0,072	1,156	0,248	Rejected
<i>Operand Service Quality</i> → <i>Customer Satisfaction</i>	0,411	6,604	0,000	Accepted
<i>Customer Engagement</i> → <i>Customer Satisfaction</i>	0,222	3,551	0,000	Accepted
<i>Operant Service Quality</i> → <i>Customer Loyalty</i>	0,294	4,419	0,000	Accepted
<i>Operand Service Quality</i> → <i>Customer Loyalty</i>	0,061	0,912	0,362	Rejected
<i>Customer Engagement</i> → <i>Customer Loyalty</i>	0,279	4,186	0,000	Accepted
<i>Customer Satisfaction</i> → <i>Customer Loyalty</i>	0,151	2,402	0,016	Accepted

Table 1 shows the structural equation model result for each hypothesis. From eight hypotheses, six were accepted and two were rejected. This is based on the number of the probability and critical rati. The rejected hypothesis are operant service quality to customer satisfaction and operand service quality to customer loyalty.

The assessment of students' perceptions that has a sense of belonging to the study programs is a customer loyalty. Toward the end, the students are willing to recommend a study program by providing a positive word of mouth. Also, the students' intention to behave toward the study program. The data processing results can be explained that the customer loyalty variable is significantly affected by operant service quality variable, customer engagement, and customer satisfaction. Customer loyalty variable, as a part of operant service quality variable, is the variables that have the most impact. Operant service quality is based on the students' assessment of the quality of services in the form of intangible skills. These are generally in the form of the faculty and staff who are enthusiastic, namely human resources knowledge and skills.

Thus, the level of knowledge and skills of the faculty and staff influence the sense of belonging and loyalty towards the management study program. The sense of belonging of the study program will increase if the faculty and staff have a better knowledge and skills owned. The next variables that influence customer loyalty is customer engagement. Customer engagement is the assessment of the students to experience interaction, repeat relational relationship toward the study program. Also, active participation of the students in the activities of the study program is more focused on engagement between the students and the faculty/staff of the study program. This explains that the higher and positive experience relational interactions and relationships between the students and the study programs will further enhance the sense of belonging and loyalty to the management study program. The next variable that influence customer loyalty is customer satisfaction. Customer satisfaction is the satisfied feeling of the students' assessment of the situation that occurs when an experience meets or exceeds the expectations or desires of the students. The more students fulfilled a need or desire or even exceed the needs and desires, it will make the students to have more sense of belonging and loyalty to the study program.

The last variable that has an influence on customer loyalty is operand service quality. Operand service quality is based on the students' assessment of the quality of services in the form of physical objects such as facilities used by the students. This variable has a positive influence but small and not significant influence on customer

loyalty. This explains the facilities developed by the study program, in the form of academic facilities and non-academic facilities, will not directly form a loyalty. Operant service quality has the greatest influence on customer loyalty, it is because operant service quality is a direct assessment of students based on experience that they felt on the quality of the faculty and staff of the study program. Students can feel the quality of the faculty and staff of the study program during the learning process between the students and the lectures.

Customer loyalty is influenced by other variables, such as customer loyalty is customer engagement and customer satisfaction. Results of the study explained that customer engagement has a greater influence on customer loyalty than customer satisfaction. This explains that the experience of interaction and deep relational relationship towards the study program have an influence in creating customer loyalty rather than just to meet or exceed the expectations and desires of the students. When students are satisfied, this will improve customer loyalty, but the effect is not as big as the effect of operant variables of service quality and customer engagement. Some previous researchers claim that customer satisfaction is the main antecedent of customer loyalty (Mittal and Kamakura, 2001). Research suggests a different outcome that customer satisfaction has a significant influence on customer loyalty, but the effect is small compared to most other variables that directly affect customer loyalty. This can be explained because customer satisfaction has more influence in shaping the loyalty only for a short term than the long-term loyalty.

Relational relationship is more important in creating customer loyalty. Assessment of the service in the service sector on higher education does not only happen in a short time, but through a process that occurs continuously during the learning process. Students who are satisfied with the study program do not guarantee that the students will be loyal, because the loyalty developed is only pseudo loyalty (spurious loyalty). This is certainly different from a regular product, when a consumer satisfied with the product, the consumer will form a loyalty to the product. Relational relationship that exists between the staff, the faculty and the students and it involves the emotional side and builds the loyalty of the students as well. It is clear that students who have a tendency to be bound by the study program will directly form a high level of loyalty.

These findings suggest a shift in thinking on marketing aspect. The customer satisfaction is no longer a dominant factor in shaping customer loyalty, but it is more important to give priority to establish relational ties with the good interaction between the students and the courses through customer engagement.

Operant service quality, operand service quality, and customer engagement influenced customer satisfaction. The greatest influence variables on customer

satisfaction is operand service quality. This proven that students assessed their expectations and wants. They assessed toward more in the form of tangible and can be seen in physical form. In this case, it is the facility provided by the management study program in academic and non-academic facilities. The idea is that the better facilities provided by the study program, it will further increase customer satisfaction. Because it is easier for the students to assess and compare the real physical form. The next variable which has a significant influence is customer engagement variable. Customer engagement explains the involvement of the students to the management study program and also the bonding of the students to the management study program. The higher the involvement and engagement of students to the study program will make students realize the real condition of the study program and create a good emotional bond with the study program. Students who have an emotional bond will tend to be satisfied easier, because the expectations of the students will be more adapted to the conditions attached to the program of study

Operant service quality has a positive effect but not significant to customer satisfaction. This is due to the respondents are from the management study program. Also, they are able to assess the comparison and the fulfillment of what are the expectations and wants from something that can be seen in the physical form or tangible. While operand service quality is emphasized more on the process of exchange of knowledge and skills and it cannot be seen or intangible. Operant resources are the fundamental source of strategic benefit (Vargo & Lusch, 2016). So initially, operand service quality will establish customer engagement, and then it will establish customer satisfaction. Operant service quality has no direct significant affect to increase customer satisfaction.

Operant service quality variable significantly affect the customer engagement. This can be seen from the good relational relationship between the students and the management study program. In this matter, the faculty and staff will increase the student engagement and emotional bond with the study program. The better quality of the faculty and staff in providing services to students will make the students feel a particular attachment to the study program. This can also lead to an increasing in interest to be actively involved with the study program activities. It is proven by the form of exchange of knowledge and demonstrate appropriate expertise from each of the faculty and staff.

4.3 Discussion

This study gives evident on a positive and significant influence between operand service qualities on customer loyalty. This finding suggests that it is crucial to develop and implement the faculty and staff's skills and knowledge in improving the

students' loyalty. This results explain that the higher education provider should provide development and innovation in increasing the competences and skills of the faculty and staff. This will align with the concept of service dominant logic as the resource application and integration from institutional perspective. Another finding of this research explains that operand service quality has a positive effect but not significantly increase customer loyalty. Good academic and non-academic facilities do not directly increase the loyalty of the students, but rather form the initial student satisfaction. This explains the needs on adapted innovation toward the higher education providers' needs. The higher education provider is the value co-creator and policy maker. They have to pay attention on institutions and institutional arrangements for overseeing and understanding the continuous and discontinuous of innovation, including for the facilities in higher education.

Additional novelty of this research is the development of the service quality theory in the higher education sector through the dimension of operant and operand service quality. The findings of this study indicate that the operant service quality has three dimensions: quality lecturer, academic staff quality and supporting quality staff; while operand service quality has two dimensions: academic and non-academic facilities.

Service dominant logic lexicon provides four cores for foundational concepts which are actors, service, resources, and value (Lusch & Vargo, 2014). The research result explain that the involvement of the higher education provider could not be separated from the services and resources owned in the process of value co-creation. The results of the study also explained that customer engagement has a greater direct effect on customer loyalty than the direct influence of customer satisfaction on customer loyalty. This deepens and gives more evidences to the concept of relational exchange of Vargo and Lusch (2016). Students who feel that they have a good relational relationship with the study program, in the sense of feeling of belonging and have a good closeness with the study program, will establish a higher level of loyalty compared to the students who are only satisfied with the study program in forming loyalty. It shifts the mindset that customer satisfaction is the most important antecedent in increasing customer loyalty (Mittal and Kamakura, 2001)

The variable of Customer engagement is a variable that lies in between the relation of operant service quality to customer satisfaction. Good knowledge and skills of the faculty and staff and have a positive influence but not significantly enhancing customer satisfaction. Good knowledge and skills of the faculty and staff will make students feel that they have a good relational relationship with the study program. The students will also have the feeling of belonging and closeness to the the faculty and staff in the study program. This good interaction process will shape and

also increase customer satisfaction.

The variable of Operand Service Quality is positively affect but not significantly increase the customer loyalty. It means that good facilities of the study program is not significant in increasing the studentss loyalty, but good facilities will initially form the students' satisfaction. Buildings and other facilities or in the physical form, such as owned by the study program, will create the students' satisfaction to the study program, and after the students are satisfied, they will form a good loyalty to the study program.

V. Conclusion, Limitation and Research Extention

The result of this study is a marketing management theoretical study on the aspect in confirming the service dominant logic from fundamental analysis, which is the operant and operand service quality's effect on customer loyalty through customer satisfaction and customer engagement. These studies suggest that operant service quality can affect customer loyalty directly, and also through customer engagement. Even though it is not directly influence customer satisfaction significantly, while operand service quality can not directly affect customer loyalty, but customer satisfaction has a significant effect.

The undergraduate management study program on private higher education in Surabaya is a study program that has the largest number of students in Surabaya. Loyalty becomes an important part that needs to be studied and fully understood for the development of the management study program. This study put evident that the knowledge and skills exchange from from the faculty and staff, through the operant service quality variable, becomes a determinant of a good relational relationship with the students. This also play an important role in creating students' loyalty (customer loyalty) to the undergraduate management study program on private higher education in Surabaya.

The research results suggest that the dominant coefficient path (highest estimate) lies on the operant service quality path, and it can affect the customer loyalty directly. Another finding is that customer engagement has a greater influence on customer loyalty than customer satisfaction. This explains that the bonding and the relational relationship between the study programs and the students will make the students become more loyal to the study program. Only developing the students' satisfaction will not be sufficient to make students to create high loyalty to the undergraduate management study program in private university in Surabaya.

The development of facilities by the study program will impact the temporary satisfaction development and it will not form the loyalty on the students. While the quality of the faculty and staff will form high students' loyalty, the undergraduate management study program on private higher education in Surabaya

should be focused to improve the quality of service of the faculty and staff. Facilities that will be attractive for students are only for the students who only want to study for a short term.

A good service quality from the faculty and staff will also form bonding and good relational relationship of students with the study program. Students who have a good bonding and feel connected with the study program with the faculty and staff, will increasingly shape the satisfaction of the students and also establish good loyalty of the students of the undergraduate management study program in a private higher education in Surabaya.

Student satisfaction is no longer become the main antecedent of students' loyalty. Instead the quality of service, both from the faculty and staff, as well as the bonding relationship and good relation will be able to make a good loyalty towards the undergraduate management study program of higher education in Surabaya. The study program should be more focused on increasing the quality development of the faculty and staff continuously.

This research brings in the important role of "institutions and institutional arrangements" into the SDL lexicon. The higher education administrators have to able to develop and manage the operant and operand service quality really well, as it is a part of integration of resources. Good resource integration will create uniqueness in co-creating values from the resources earned. This will also create new potential resources for exchange with the other actors. This can be a basis in the development of service innovation for each institutions through the power of operant and operand service quality integration. The higher education also needs to conduct and improve innovation, because higher education sector is always changing and developing industry. So that resource integration from operant and operand service quality should really be considered as the main key in innovation of each higher education institutions. In this context, innovation is designing and creating of new markets through service provision (Vargo & Lusch, 2016).

There are no producers and consumers in the service dominant logic concept. All aspects are resource integrators (Vargo & Lusch, 2016). This caused the need of the relational relationships between higher education providers in creating integrated innovation to fulfil the needs and interests of all actors. Organization also do not create value, value is always co-created (Vargo & Lusch, 2016).

Further research can be developed using the same research model by grouping it by gender, accreditation, and semester level. This is needed to be done to better determine the impact of the grouping on the variables used. The population on this research was limited to respondents living in the region of Surabaya, and it is necessary to conduct further research with a broader scope. Thus, it would explain the

relationship between variables in a wider scope. Further research can be developed by the indicators that are used in each limited variable, so it can be explored further in developing indicators used for each variable of the research.

The research object is still limited to the higher education service sector on undergraduate management study program in private university in Surabaya. This research can be developed by using different research objects, e.g. using different study programs, or using high school, or using different sectors.

Further research can also be developed with the needed service innovation on the higher education sector. Questions such as how can higher education be innovative in developing operand operand and service quality, and what kind of uniqueness that need to be done based on operand and operand service quality in providing service education are some of the questions needed to be focused on.

Appendix

Operant Service Quality	Validity
Lecturer Quality	
The lecturers explain the classroom material with clear and attractive way.	0.739
The lecturers want to hear the students' feedbacks.	0.654
The lecturers provide a consultation schedule and fulfil it.	0.718
The lecturers give a fair assessment.	0.672
Academic Staff Quality	
Academic administrative staff provide clear and accurate schedule information (lectures, exams, grades).	0.856
Academic administrative staff provide fast and friendly administrative services.	0.723
Academic administrative staff treat the students as fair as possible.	0.574
Supporting Staff Quality	
The student service staff is able to encourage the student to be involved in non-academic activities (Students' activity club, Student Organization).	0.697
The student service staff provide fast and friendly services	0.887
The student service staff treat the students as fair as possible	
	-
Operand Service Quality	
Academic Facilities	
Complete computer classroom facilities.	0.761
Clean classroom facilities.	0.819
Complete collection of library books.	0.862
Adequate computer lab facilities.	0.813
Non-Academic Facilities	

Supportive student activity club and sport field facility	0.748
Clear bulletin board facilities	0.911
Spacious parking facility	0.903
Customer Engagement	
Being proud as the study program's student as the emotional bonding to the study program.	0.714
Possess a strong will to be more actively involved in the study program's activities on the study program students association.	0.821
Feel the belonging towards the study program by keeping the good reputation of the study program	0.785
The closeness with the faculty and staff from the study program by conducting good communication.	0.779
Strive to do the best in the study program by studying hard.	0.7
Customer Satisfaction	
Satisfied with the study program.	0.752
Satisfied with the services given and the services are better than other study programs.	0.933
Satisfied with the quality given, relative to the cost.	0.88
Satisfied with the service of the study program.	0.694
Satisfied with the performance of the faculty and staff of the study program.	0.61
Customer Loyalty	
Recomending the study program to a friend	0.701
Visit the lecturers and give inputs for the development of the study program	0.747
Continuing to choose other programs offered by the study prgram by enrolling master degree	0.753
Will never switch to another study program	0.729
After graduation, still supporting the study program activities by giving sponsor	0.661
After graduation, still be willing to participate in the study program activities, becoming a guest speaker or joining alumny member	0.658

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