

The Impact of Value Co-Creation on Customer Satisfaction with Customer Participation as a Mediator

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ABSTRACT

This research aims to understand the role of customer participation and value co-creation in enhancing customer satisfaction. The importance of student satisfaction during their academic journey is highlighted through the value creation process in education. This value creation requires participation between students and educators, which encompasses various behaviors, each playing a significant role in shaping customer perceptions regarding the process and outcomes tied to specific service contexts. In particular, information sharing, responsible behavior, and voluntary in-role feedback are found to be especially important in educational services for achieving student satisfaction during their studies in higher education. This study employs a quantitative method using purposive sampling as the sampling technique. The respondents involved in the research are 100 final-year students at STTKD Yogyakarta. The data analysis technique utilized is Smart PLS version 3.3. The results of this study indicate that customer participation, which includes information sharing, responsible behavior, and voluntary in-role feedback, has a positive and significant impact on value co-creation. The study also reveals that value co-creation positively and significantly influences customer satisfaction.

Keywords: customer participation, information sharing, responsible behavior, voluntary in-role feedback, customer satisfaction

ABSTRAK

Penelitian ini bertujuan untuk memahami peran partisipasi pelanggan dan kreasi bersama nilai dalam meningkatkan kepuasan pelanggan. Pentingnya kepuasan siswa selama perjalanan akademik mereka disorot melalui proses penciptaan nilai dalam pendidikan. Penciptaan nilai ini membutuhkan partisipasi antara siswa dan pendidik, yang mencakup berbagai perilaku, masing-masing memainkan peran penting dalam membentuk persepsi pelanggan mengenai proses dan hasil yang terkait dengan konteks layanan tertentu. Secara khusus, berbagi informasi, perilaku yang bertanggung jawab, dan umpan balik dalam peran sukarela ditemukan sangat penting dalam layanan pendidikan untuk mencapai kepuasan siswa selama studi mereka di pendidikan tinggi. Penelitian ini menggunakan metode kuantitatif dengan menggunakan *purposive sampling* sebagai teknik sampling. Responden yang terlibat dalam penelitian ini adalah 100 mahasiswa tingkat akhir di STTKD Yogyakarta. Teknik analisis data yang digunakan adalah Smart PLS versi 3.3. Hasil penelitian ini menunjukkan bahwa partisipasi pelanggan, yang meliputi berbagi informasi, perilaku yang bertanggung jawab, dan umpan balik dalam peran secara sukarela, memiliki dampak positif dan signifikan pada penciptaan bersama nilai. Studi ini juga mengungkapkan bahwa kreasi bersama nilai secara positif dan signifikan mempengaruhi kepuasan pelanggan.

Kata kunci: partisipasi pelanggan, berbagi informasi, perilaku yang bertanggung jawab, umpan balik sukarela dalam peran, kepuasan pelanggan

INTRODUCTION

Customer participation in value creation in a service is important in increasing customer satisfaction. The importance of interaction between companies and customers in the process of creating economic value. (Pralad & Ramaswamy, 2004) explains that it is important to interact between stakeholders in a company and its customers in order to create economic value. The current phenomenon is that many customers make their satisfaction benchmarks not only to get services or products, but service providers are required to be able to create value in serving customers Martelo (2013). So customer participation is very much needed in creating the service process that will be provided. Customer participation in question is that customers can participate in getting and giving trade-offs in creating an important value Zeithaml (1988). Customer participation with the creation of perceived value has not been fully understood by many people, it can still be said that there is minimal knowledge about the role of customers in their participation in actively participating and contributing to achieving a form of value for customers Mustak, Jaakkola (2013). This concept is called customer participation which can be applied in a value creation process in educational institutions.

The phenomenon that occurs in educational institutions today is that many final semester students have difficulty in completing their final assignments. In general, in completing a Bachelor's degree program, students can take 3.5 years to 4 years. While one of the requirements for completing a Bachelor's degree program is to create a scientific work (thesis) as a manifestation of the ability of prospective scientists as a form of requirement to be able to obtain a Bachelor's degree (S1) Ainur (2006). It is important for service providers to pay attention to and accommodate customer behavior when serving, meaning that the provider of information and the recipient of information must create a feel between the two parties as an alternative for information providers to complete services well and customers can provide feedback voluntarily in the form of providing additional information to the information provider service Gummesson & Mele (2010).

It is expected that this research can provide more insight into the important role of customer participation in the service process. Participation is an important thing that should be done by customers in getting services and is also important for service providers to create value that is felt by customers so that customers are satisfied with the services provided. This study focuses on discussing the role of value co-creation felt by customers to influence customer satisfaction.

Among the many transformative services that aim to create value to increase customer satisfaction, educational services have the same role to fulfill the satisfaction of students who are pursuing further studies at the institutions they have chosen (Hall, Sanders, 1997). In services at educational institutions, customer

participation is very important to create value in services at an institution. Díaz's research (2012) explains that higher education is one of the institutions that can create shared value by prioritizing services, namely between students and lecturers. Yi, Gong (2013) considers customer participation behavior as one of the important dimensions in creating shared value with customers. Customer participation includes three components, namely information sharing, responsible behavior and voluntary in role feedback.

The gap phenomenon that is often found today is that many students do not graduate on time, because lecturers do not understand the situation and conditions and desires of students. Many students actually have difficulty in completing their final assignments, but on the other hand they are afraid and less open to conveying it to their supervisors. Not only that, many lecturers do not give students the opportunity to convey the obstacles they are facing during the guidance process. In addition, most lecturers are also less able to convey the purpose of the final assignment taken by students. With this we can see that there is a gap between students and lecturers, which now needs to be studied further regarding this phenomenon.

THEORITICAL REVIEW

Customer Participation

Customer participation is a customer behavior that leads to making offers related to customer value creation to help create value Mustak et al, (2013). Most of these customer behaviors are limited to direct interactions or shared scope of the service process. Customer participation has an important role that must be fulfilled to influence the success of the service process. In the realm of higher education, it is important to provide services that have a high level of participation. Service is described as a process carried out by institutions to do something in interactions with customers in creating customer value Sumi & Tjokrosaputro (2020). In the scope of social media technology, (Chae & Ko, 2016) describes customer participation as an effort to achieve shared value creation through voluntary interactive participation of customers in service production and delivery processes on social media. Customer participation concerns the extent to which customers actively provide/share/disclose perceived information to provide advice and input to service providers and are involved in decision making to gain knowledge and improve relationships (Carlson, Wyllie, Rahman, & Voola, 2019). Customer participation is thus a fundamental part of the service process. Value co-creation is the output of collaboration and interaction between service providers and customers. In the collaboration between the two, both agencies and customers apply resources, such as skills and knowledge, to service interactions to mutually benefit each other Carlson et al, (2019). Then the indicators of customer participation in this study adopted from the study of Nguyen Hau & Thuy (2016) are: Information sharing, Responsible behavior, Voluntary in-role feedback.

Value Co-Creation

Co-creation is building interactions across all parts by being active in services involving supplier contributions and improvements to certain companies Ramaswamy & Ozcan (2018). According to Gronroos & Ravald (2011) explains that creating customer value is a series of processes consisting of two different sub-processes, namely the process of providing resources for customer use and the process of customers converting services into value. Value co-creation is recognized as an important strategic process in creating value for consumers Ballantyne & Varey (2006). According to Grönroos (2004) states that value is not created and given to passive consumers, but is embedded in the process of creating shared value between companies and consumers by interacting and dialogue. (Chiu, Won, & Bae, 2019) Value co-creation is an interactive process that involves service providers and customers to collaborate to create value for a product and service. This value can certainly support companies in creating strategies to convince consumers with the information they need. This information can help in developing strategies to increase the social and environmental value that the company creates. In value co-creation, customers utilize a number of social resources including family relationships, communities, and commercial relationships so that increased value is generated from their experiences (Rihova, Buhalis, Moital, & Gouthro, 2013). Value co-creation is a comprehensive design to obtain information about the company's development to achieve higher goals and more intensive interactions with consumers, meaning that consumers not only act as users of the company's products but also as company relations in helping the company to develop its business based on the value of the experience experienced by consumers when they will use the company's products Ballantyne & Varey (2006). Based on the description above, it can be concluded that value co-creation is defined as the willingness of customers to engage in resource interactions and collaborations with service providers. According to Ranjan & Read (2014) there are three indicators of value co-creation, including: Service providers and customers exchange ideas interactively, Service providers and customers exchange materials, Service providers and customers respect each other's opinions.

Customer Satisfaction

Customer satisfaction is a customer's assessment of the extent to which a service provider can satisfy or exceed customer expectations Vega et al. (2013). Meanwhile, according to El-adly (2019), customer satisfaction is a customer's attitude in assessing after using a product or service with the level of expectations before using it. Although satisfaction is basically understood as an individual's assessment of the results achieved compared to the expected expectations. Then according to Solakis et al. (2021) said that customer satisfaction is a customer's feeling that is felt after using a product or service provided by the company and comparing it with the expectations that consumers have expected. Based on the definition above, it can be concluded that customer satisfaction is defined as a feeling of pleasure after receiving final assignment guidance services. Then the indicators of customer satisfaction according

to Vega et al. (2013), El-adly (2019), and Solakis et al. (2021) include: Happy with the service, feeling that expectations are met, Happy with the experience.

Hypothesis Development

Information Sharing and Value Co-Creation

Research findings (Nguyen Hau & Thuy, 2016) show that information sharing has a positive and significant effect on value co-creation. In addition, research (Yi & Gong, 2013) also proves that information sharing has a positive and significant effect on value co-creation. If customers do not provide important information, information providers (companies) cannot carry out the process optimally. Through information sharing between information providers and customers, information providers can ensure that they are able to provide information and provide services that meet customer needs (Mustak et al., 2013). Value creation through information sharing can involve participation and information sharing behavior regarding education is a characteristic that distinguishes an agency from other agencies. Thus, information sharing is the key to successful value creation. In successful value creation, customers must provide resources such as information to be used in the process of creating shared value. If customers do not provide important information needed by the customers themselves, then service providers cannot even start or carry out their duties to provide the services needed by customers. Through sharing information between service providers and customers can ensure that service providers provide services that meet their specific needs (Grönroos & Voima, 2013). For example, in an institution, lecturers need to provide information to students about the learning process or announcements. Thus, information sharing is the key to the success of value-co-creation. Based on the results of previous studies, to create value co-creation, there needs to be information sharing that is felt by customers.

Hypothesis 1: Information Sharing has a significant positive effect on Value Co-Creation.

Responsible Behavior and Value Co-Creation

Research findings (Nguyen Hau & Thuy, 2016) show that responsible behavior has a positive and significant effect on value co-creation. According to (Bettencourt, 1997) successful service creation requires customers to be cooperative, comply with rules and policies, and accept direction from service providers. Customer participation behavior as one dimension of the broader construct of customer value co-creation behavior. Thus, customer participation behavior refers to the behavior required for successful value creation. Responsible behavior is responsible behavior that should be given in order to create value for the company, but is not always done. Customer participation behavior, in turn, includes four components, namely information seeking, sharing, responsible behavior, and personal interaction. In higher education services, examples of responsible behavior provide structured guidance to students according to the timeline that should be, as well as students doing their final assignments well according to the lecturer's instructions. This

activity is needed to ensure service results. However, not all customers practice this behavior at the same level or to the level expected by customers because to properly perform this responsible behavior, customers must have knowledge or skills and contribute more to both physical and non-physical resources. Based on the results of previous studies, to create value co-creation, there needs to be responsible behavior felt by customers.

Hypothesis 2: Responsible Behavior has a significant positive effect on Value Co-Creation

Voluntary in-Role Feedback and Value Co-Creation

Research findings (Nguyen Hau & Thuy, 2016) show that voluntary in-role feedback has a positive and significant effect on value co-creation. Voluntary in-role feedback refers to providing information needed by customers before they ask for the information. Voluntary means voluntarily and actively providing services to students during the service process, which helps students in pursuing the timeline for completing their final assignments (Groth, 2005). This feedback is given voluntarily by customers during the service process, when the service has not been completed. It occurs after customers experience or receive certain behaviors from service providers in direct interaction. (Yi & Gong, 2013) which refers to voluntary in-role feedback that occurs after service consumption. This factor is added as a component of participation behavior because it is needed in the two-way dialogue process, which facilitates effective resource integration between customers and service providers (Grönroos & Voima, 2013). In useful communication, customers can practice both roles including providing information with and without questions, here voluntary in-role feedback occurs. Based on the results of previous studies, to create value co-creation, there needs to be voluntary in-role feedback felt by customers.

Hypothesis 3: Voluntary In-Role Feedback has a significant positive effect on Value Co-Creation

Value Co-Creation and Customer Satisfaction

Research according to (Vega-Vazquez et al., 2013) shows that value co-creation has a positive and significant effect on customer satisfaction. The literature shows that service companies dedicated to education should encourage the active participation of customers in the value creation process, as this has been shown to have a positive influence on customer satisfaction with the company's services. Therefore, and in accordance with the results achieved, companies should strive to support this interaction. They can do this by creating appropriate communication channels and encouraging customer involvement in the service production process. The importance of managing customer participation is considered a key tool in the implementation of co-creation. In addition, it can be expected that consumers will acquire certain skills in the value creation process, thus contributing to differentiating service providers (Dong, Evans, & Zou, 2008). This is the application of abilities (knowledge and skills) by one party for the benefit of another party, with the interaction between the two-generating value. On the other hand, customer

involvement in the value co-creation process can cause customers to feel the satisfaction obtained in the provision of services. Based on the results of previous studies, to create customer satisfaction, there needs to be value co-creation felt by customers.

Hypothesis 4: Value Co-Creation has a significant positive effect on Customer Satisfaction

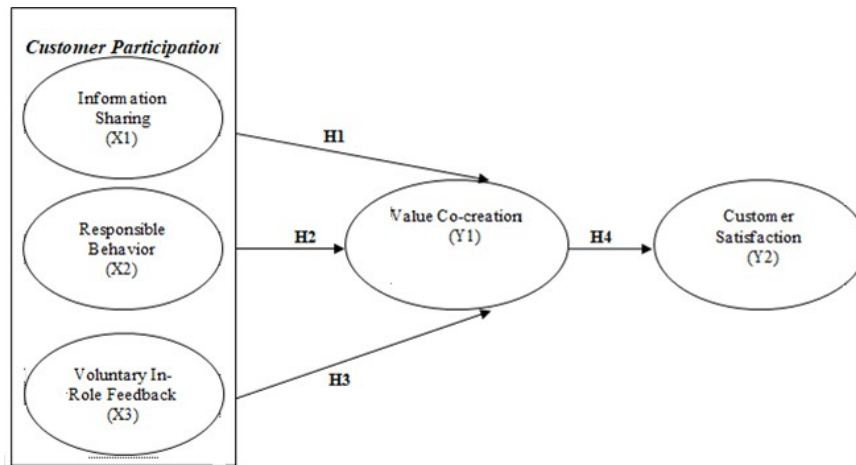


Figure 1. Empirical Models

RESEARCH METHODS

The type of research is explanatory research and is conducted with a quantitative approach. According to Sugiyono (2017), Explanatory research is a study that aims to determine whether there is an influence or relationship between independent variables and dependent variables, whether the influence or relationship is strong or weak. This type of research tries to test the hypothesis to confirm or reject the research hypothesis. This quantitative approach is based on the object used to study a particular population or sample and collect information about the research variables Sugiyono (2017). So, this study aims to analyze the influence and relationship between variables consisting of independent variables, namely information sharing (X1), responsible behavior (X2), and voluntary in-role feedback (X3). Then the dependent variable is customer satisfaction (Y2) and the intervening variable is value co-creation (Y1).

According to Sugiyono (2017), population is an area used by researchers as an object or subject to be determined or characterized. The population included in this survey were final year students at STTKD Yogyakarta. The sample is part of the total population, according to the characteristics of Sugiyono's research (2017). The method used is purposive sampling by taking appropriate samples based on predetermined respondent criteria (Rahi, 2017). The intended respondent is an active student who is working on a final assignment at STTKD Yogyakarta. Respondent criteria include; active students, in the process of completing a final

assignment/thesis. In the Wibisono formula (2003), if the population is still in an estimated size with an uncertain number, the researcher uses sample determination with the Riduwan and Engkos formula (2013).

Data sources are information that can be searched according to the topic taken. The data sources used in this study are primary and secondary data sources. Primary data sources are data from the first data source that allows researchers to collect information related to their research Emmanuel & Ibeawuchi (2015). Data sources in this study were conducted on final year students. Data obtained from the results of questionnaire answers to statements about information sharing (X1), responsible behavior (X2), and voluntary in-role feedback (X3), Value Co-Creation (Y1) and customer satisfaction (Y2). Secondary data sources are data derived from research questions that are analyzed and collected by previous research (Nasution, 2009). Secondary data are obtained from research journals, articles, journals, scientific books, and agency websites, related to information sharing (X1), responsible behavior (X2), and voluntary in-role feedback (X3), Value Co-Creation (Y1) and customer satisfaction (Y2).

Data analysis techniques using Partial Least Square (PLS), Partial Least Square (PLS) is a regression-based method for creating and building social science models and methods with a prediction-oriented approach (Wold, 1960). PLS assumes that survey data is free from a certain distribution, for example a normal distribution). PLS is an alternative SEM method that can be used to solve complex relationship problems between variables, but the data sample size is small (30-100) considering that the minimum data sample size for SEM is 100 (Sarstedt & Cheah, 2019). According to (Hamdollah & Baghaei, 2016) said that PLS is a way to find components of X that are also related to Y. PLS is used to determine the relationship between latent variables and other latent variables in a complex way, and between latent variables and their indicators. PLS has two tests, namely inner and outer models. The internal model determines the relationship between latent variables and indicators. Latent variables can be divided into two types, namely exogenous latent variables and endogenous latent variables. Exogenous latent variables are causal latent variables, namely latent variables that can affect endogenous variables. Endogenous latent variables are latent variables that are influenced by exogenous latent variables (Yamin & Kurniawan, 2009).

RESULT AND DISCUSSION

The respondents of this study were final year students who were completing their thesis research at STTKD Yogyakarta, totaling 100 students. This study was conducted by giving questionnaires directly and indirectly to all final year students and took approximately two months until all questionnaires were collected by 100 percent. The questionnaire was given to 125 students to minimize respondents who did not meet the criteria, with a return rate of 100 percent. The results of the questionnaire that met the criteria were 100, which could then be tested and

analyzed. The return rate of the questionnaire that could be further processed will be presented in Table 1.

Table 1. Results of Primary Data Collection

Criteria	Amount	Percentage
The questionnaire was distributed	125	100%
Number of unreturned questionnaires	0	0%
Number of questionnaires that do not meet the criteria	25	20%
Number of questionnaires that meet the criteria	100	80%

Source: Processed Primary Data, 2024

The table above shows that the number of distributed questionnaires is 125. The questionnaires that meet the criteria are 100 with a questionnaire return rate of 80 percent. The demographics of respondents in this study include:

Table 2. Respondent Demographics

Information	Frequency	Percentage
Number of Samples	100	100%
Gender		
Laki - laki	46	46%
Perempuan	54	54%
Age		
15 - 20 tahun	45	45%
21 - 25 tahun	55	55%
26 - 30 tahun	0	0%
36 - 40 tahun	0	0%
> 40 tahun	0	0%
Study Level		
D1	15	15%
S1/D4	40	40%
D3	45	45%

Source: Processed Primary Data, 2024

Based on Table.2, the results of the study show that the number of male respondents is 46 (46 percent) while female respondents are 54 (54 percent). Meanwhile, based on age, respondents aged 15-20 years are 45 respondents (45 percent), aged 21-25 years are 55 respondents (55 percent). Respondent

demographics based on study level, respondents with D1 studies are 15 respondents (15 respondents), S1/D4 are 40 respondents (40 percent), and D3 study level is 45 respondents (45 percent).

It is concluded from table 2 that the number of women is more dominant than men, but each has almost the same proportion because the STTKD Yogyakarta campus studied, especially for final year students, has an almost balanced number of male and female students. Most students are 15-20 years old; this can be seen that many young students are completing their final assignments.

The table below explains the results of the significance test for each hypothesis in this study, so that the results obtained from the smart PLS output are as follows.

Table 3. Path Coefficient

	<i>Original Sample (O)</i>	<i>Sample Mean (M)</i>	<i>Standard Deviation (STDEV)</i>	<i>T Statistics (O/STDEV)</i>	<i>P Values</i>
<i>Information Sharing -> Value Co-Creation</i>	0.292	0.283	0.069	4.237	0.000
<i>Responsible Behavior -> Value Co-Creation</i>	0.250	0.257	0.077	3.233	0.001
<i>In- Role Feedback -> Value Co-Creation</i>	0.510	0.511	0.091	5.627	0.000
<i>Value Co-Creation -> Customer Satisfaction</i>	0.918	0.920	0.011	84.448	0.000

Source: Processed Primary Data, 2024

Based on table 3, the test results of each hypothesis are all significant, so that conclusions can be drawn in table 4.

Table 4. Conclusion of Hypothesis Test Results

Hipotesis	Track	Hipotesis	Results	Conclusion
H1	<i>Information Sharing -> Value Co-Creation</i>	Significant Positive	Significant Positive	Accepted
H2	<i>Responsible Behavior-> Value Co-Creation</i>	Significant Positive	Significant Positive	Accepted
H3	<i>Voluntary In-Role Feedback-> Value Co-Creation</i>	Significant Positive	Significant Positive	Accepted
H4	<i>Value Co-Creation -> Customer Satisfaction</i>	Positif Signifikan	Significant Positive	Accepted

Source: Processed Primary Data, 2024

Based on the results of data processing in table 4 above, it can be interpreted as follows:

1. The results of hypothesis 1 testing indicate that information sharing has a positive and significant influence on value co-creation with a path coefficient ($O = 0.292$) and t values $4.237 > 1.96$ with p values showing $0.000 < 0.05$, then H_0 is rejected and H_1 is accepted so that it can be concluded that information sharing has a moderate, positive and significant relationship influence on value co-creation. Thus, the first hypothesis proposed in this study, namely information sharing has a significant influence on value co-creation, is accepted.
2. The results of hypothesis testing show that responsible behavior has a positive and significant influence on value co-creation with a path coefficient ($O = 0.250$) and t values $3.233 > 1.96$ with p values showing $0.001 < 0.05$, then H_0 is rejected and H_2 is accepted so that it can be concluded that responsible behavior has a strong, positive and significant relationship influence on value co-creation. Thus, the second hypothesis proposed in this study, namely responsible behavior has a significant influence on value co-creation, is accepted.
3. The results of hypothesis testing show that voluntary in-role feedback has a positive and significant effect on value co-creation with a path coefficient ($O = 0.510$) and t values $5.627 > 1.96$ with p values showing $0.000 < 0.05$, then H_0 is rejected and H_3 is accepted so that it can be concluded that voluntary in-role feedback has a strong, positive and significant relationship on value co-creation. Thus, the third hypothesis proposed in this study, namely voluntary in-role feedback has a significant effect on value co-creation, is accepted.

4. The results of hypothesis testing indicate that value co-creation has a positive and significant influence on customer satisfaction with a path coefficient ($\beta = 0.918$) and t values $84.448 > 1.96$ with p values showing $0.000 < 0.05$, then H_0 is rejected and H_4 is accepted so that it can be concluded that value co-creation has a strong, positive and significant relationship influence on customer satisfaction. Thus, the fourth hypothesis proposed in this study, namely voluntary in-role feedback has a significant effect on customer satisfaction, is accepted.

Discussion of Research Results

The Influence of Information Sharing on Value Co-Creation

Based on the results of hypothesis 1 testing in this study, information sharing has a moderate, positive and significant influence on value co-creation. Information sharing is defined as the student's perception that the supervisor gives him the opportunity to provide information related to the preparation of the final assignment. So when the supervisors provide information sharing to their students properly, it can influence how they create value co-creation for the institution they choose to be their place of study.

The results of this study indicate that students who receive good information sharing from their supervisors tend to create value in the process of completing their studies. Value is created when students feel that they are given easy access to convey information to their supervisors, the lecturer appreciates information from students, the freedom to provide information, the lecturer provides clear direction regarding the transfer of information. The relationship between information sharing and value co-creation is based on research (Nguyen Hau & Thuy, 2016) that information sharing has a positive and significant effect on value co-creation. In measuring the information sharing variable in the indicator that gets a high score on the scale of ease of access to convey information rather than freedom to provide information. This is evidence that the easier it is for students to access information to convey information to lecturers, the more value co-creation will be created.

The Influence of Responsible Behavior on Value Co-Creation

Based on the results of hypothesis 2 testing in this study, responsible behavior has a strong, positive, and significant relationship to value co-creation. Responsible behavior is defined as the student's perception that the supervisor encourages students to carry out their final assignments with full responsibility. So when the supervisors provide responsible behavior to their students properly, it can influence how they create value co-creation for the institution they choose to be their place of study.

The results of this study indicate that students who receive good responsible behavior from their supervisors tend to create value in the process of completing their studies. Value is created when students feel that their supervisors encourage them to obey the applicable writing rules, are motivated to be responsible for their final

assignments, and are encouraged to complete the assigned tasks. Research (Nguyen Hau & Thuy, 2016) shows that responsible behavior has a positive and significant effect on value co-creation. In measuring the responsible behavior variable in indicators that get high scores on the scale, lecturers encourage students to obey the applicable writing rules. This is evidence that the higher the lecturer's encouragement for students to obey the applicable writing rules, the more value co-creation will be created.

The Influence of Voluntary In-Role Feedback on Value Co-Creation

Based on the results of hypothesis 3 testing in this study, voluntary in-role feedback has a strong, positive, and significant relationship to value co-creation. Voluntary in-role feedback is defined as the student's perception that the supervisor provides the freedom to provide feedback on the guidance service. When the supervisors provide voluntary in-role feedback to their students properly, it can influence how they create value co-creation for the institution they choose to study at.

The results of this study indicate that students who receive good voluntary in-role feedback from their supervisors tend to create value in the process of completing their studies. Value is created when students feel that their supervisors give students the opportunity to convey service complaints, lecturers always ask what is lacking in the guidance service process, and lecturers make mutual agreements regarding guidance time. Research (Yi & Gong, 2013) shows that voluntary in-role feedback has a positive and significant effect on value co-creation. In measuring the voluntary in-role feedback variable in the indicator that gets a high score on the scale, lecturers give students the opportunity to convey service complaints. This is evidence that the higher the opportunity for students to convey service complaints, the more value co-creation will be created.

The Influence of Value Co-Creation on Customer Satisfaction

Based on the results of hypothesis 4 testing in this study, value co-creation has a strong, positive and significant influence on customer satisfaction. In creating customer satisfaction in today's era, value creation is very influential and very much needed in an effort to create customer satisfaction. When supervisors and students exchange ideas interactively, it can affect how they feel that there is something different in their study process and feel satisfied with what they are doing in the process of achieving their degrees (Dong et al., 2008). The results of this study indicate that students who are able to have value co-creation tend to be more satisfied with the process of completing the process of achieving their degrees at their institutions, because supervisors and students exchange ideas interactively, exchange materials, and respect each other's opinions. The role of value co-creation for institutions will study how to implement a system of exchanging ideas between supervisors and their students. Research (Vega-Vazquez et al., 2013) shows that value co-creation has a positive and significant effect on customer satisfaction. In measuring the value co-creation variable in the indicator that scored high on the scale of

supervisors and students exchanging ideas interactively than other indicators. This is evidence that the stronger the relationship between supervisors and students exchanging ideas interactively, the higher the level of customer satisfaction.

CONCLUSION

The results of the study indicate that with customer participation (information sharing, responsible behavior, voluntary in-role feedback) and value co-creation will increase customer satisfaction in students. Based on the results of data analysis through questionnaires that have been distributed to respondents, namely final year students who are completing their final assignments at STTKD Yogyakarta, it can be concluded that:

1. Information sharing has a significant influence on value co-creation.
Students at STTKD Yogyakarta who implement information sharing well will feel that they are given easy access to convey information by their supervisors, the information they convey to their supervisors is appreciated, they are free to provide information, and they are given clear directions regarding the transfer of information by their supervisors. When students who are completing their final assignments with their supervisors have shared information well with each other, they will feel that they can create value for their institutions because of the information given to the students.
2. Responsible behavior has a significant influence on value co-creation.
Responsible behavior is a very important thing to do between the supervisor and his students. With responsible behavior applied by the lecturer and students, students will feel that the lecturer always motivates students to be responsible for their final assignments, encourages students to obey the applicable writing rules, encourages students to complete the tasks given. So the higher the level of responsible behavior felt by students, the higher the level of value co-creation towards the institution.
3. Voluntary in-role feedback has a significant effect on value co-creation.
Efforts to increase value co-creation are influenced by the existence of voluntary in-role feedback given to students. With the voluntary attitude given by lecturers to their students, many students feel that their lecturers always ask what is lacking in the guidance service process, lecturers make joint agreements regarding guidance time, and give students the opportunity to convey service complaints. Therefore, it is important for supervisors to always provide voluntary in-role feedback to their students to create value co-creation.
4. Value co-creation has a significant effect on customer satisfaction.
Efforts to improve customer satisfaction are influenced by the existence of value co-creation created by students and lecturers. The existence of value creation by students towards their institutions is

something created by students because the supervisor and students exchange ideas interactively, lecturers and students exchange materials, lecturers and students respect each other's opinions. Therefore, it is important for supervisors to always provide institutions to create value co-creation for their students to create their satisfaction in continuing their studies at the institution. Of the three dimensions of customer participation (information sharing, responsible behavior, and voluntary in-role) the one that has the highest influence in increasing value co-creation is voluntary in-role feedback, so it is very important for lecturers to apply voluntary in-role feedback to their supervised students.

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