LOYALTY, TRUST, SATISFACTION AND PARTICIPATION IN UNIVERSITAS TERBUKA AMBIANCE: STUDENTS' PERCEPTION

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ABSTRACT

Factors affecting the loyalty of students in Universitas Terbuka are investigated in this paper. The aim was to elucidate how all the variables such as trust, satisfaction and participation interrelate with one another. Loyalty was the dependent variable; trust, satisfaction and participation were the independent variables. Data were accumulated using instruments in the form of questionnaires. The population was students registered in the first semester of 2014. Respondents were taken purposively from 22 of 37 regional offices throughout Indonesia, representing the western and middle part of the country; 1,099 questionnaires from respondents were finally completed and processed. Two hypotheses were established and then assessed. Statistically, factor analysis, correlation and multiple regression were thoroughly utilized to comprehend the interaction and behavior of all variables engaged. The results showed that loyalty is significantly influenced by trust, satisfaction, participation and interaction between the independent variables. However, three out of four interaction variables contributed negatively to loyalty. Besides, the variances of independent variables, including their interactions, explain 60% of loyalty's variance.

Keywords: Loyalty, trust, satisfaction, participation.

INTRODUCTION

A customer is a person who buys a product or uses a service. Basically, producers hope to have many customers. In fact, there are so many similar products or services that customers can buy. What is the strategy to attract more customers? There should be a way to catch customers' attention. Many kinds of research show that producers should create customer loyalty. To a certain extent, loyalty is usually related to satisfaction, trust and other factors.

Whenever customers are satisfied with a product or services, they will buy or use them again. This happens because what they expect is at least similar to what they perceive (Kottler, 1990). Like the product, a customer will come or buy goods or use a service in a certain store or company when they are satisfied by the services (Tariq *et al.* 2013; Gronroos, 2001; Parasuraman, Zeithaml & Berry, 1988). Therefore, quality of products and quality of services plays an important role in capturing customers' loyalty.

It can be anticipated that services and satisfaction have strong relationships since services have an impact on satisfaction. Good services create high satisfaction; bad services create low satisfaction. Customers will buy or use the same product or service when they are satisfied with the quality (Tariq *et al.* 2013; Anthanassopoulus, Gounaris, & Sathakopoulus, 2001; Selnes, 1993; Bloemer & Ruyter, 1998). This situation is known as customer loyalty to

a certain product or service. Customer loyalty is a creation of an organization which gives an added value to the customer and has an impact so that customers will still give their business to the organization (Jensen, 2011; Anderson & Jacobsen, 2000).

For educational institutions, their customers mostly are students. Schools or universities are interesting places and the focus of many students if the schools are very good at giving the best product or service with successful alumni. Students also will look for educational institutions which offer excellent quality of services.

One of the educational institutions in Indonesia is Universitas Terbuka (UT). This university offers open and distance learning (ODL) where the students mostly learn by self-learning using various materials, written or electronic-based. The students do not need to come to certain places to study. They can study anywhere by using modules or the Internet. They can also involve in face-to-face tutorials or online tutorials.

ODL students are expected to be self-learners. They can participate in activities initiated by the university such as tutorials, seminars, or other curricular activities. This participation is of importance to the students. How do ODL students' learning experiences in participating in learning activities compare to face-to-face students? This question is hard to be answered because of two different circumstances of students (Chen, Gonyea & Kuh, 2008). Participation, according to Jung *et al.* (2002), is very much related to satisfaction.

It cannot be avoided that the more diligent students are, the more subject matter they can master. An indication of subject matter mastery is students' grades in examinations (Duckworth, Quinn, Tsukayama, 2011; Crocker & Algina, 2006). Having engaged in tutorials, discussions and other academic activities, it can be highly expected that students are more motivated to study harder.

There is also information related to customer and producer; it is called trust. This is something important that will influence long-term relationships (TRIF, 2013; Rousseau, Sitkin, & Camerer, 1998; Singh & Sirdeshmukh, 2000). Trust is the readiness of one party to believe in its partner related to their business (TRIF, 2013; Moorman, Deshpande, & Zaltman, 1993). When one-party trusts its companion whom it will give an advantage then trust can be developed (Anderson & Narus, 1990). This positive result will be continued to the next business (Doney & Cannon, 1997).

From these theories, it can be seen that there is a relationship between loyalty, trust, satisfaction and participation. The question is what would be the behavior of their relationships? In this paper, loyalty is the dependent variable. In contrast, trust, satisfaction, participation and their interactions are the independent variables.

LITERATURE REVIEW

Loyalty could be influenced by some factors such as participation, satisfaction and trust. Some literatures related to loyalty and those factors are discussed below.

Participation

Customer participation has a relationship to customer loyalty (Solem, 2016). Study from Holland and Baker (2001) showed that "how consumers' goals in visiting a website (task or experiential) affect their propensity to be site brand loyal and how characteristics of the site, including personalization and community, are related to brand loyalty". Customer could be anyone. Therefore, it could also be students. In their study, Zuo and Ratsoy (1999) concluded that students have an ability in doing their plans, accommodating other students'

plan, and helping other students to reach their needs. They also found that students who were involved in organization had much greater influence than did students in general. Student must develop and sharpen their decision-making skills and commit to the plan which they have in order to be used in their future.

Satisfaction

According to Rizan, Warokka & Listyawati (2014), Grönroos (1994) and Sheth & Parvatiyar (1994), there is a shifting paradigm from transactional marketing to relationship marketing which influences customer satisfaction. This means that transactional marketing does not guarantee that the customer will buy the same product in the future. Transactional marketing just sells the product without taking an attention to the customer services. Soliman (2011), Morgan & Hunt (1994) stated the importance of keeping the relationship to the customers, especially when they had already bought the product.

Many research results have been published and stated that customers' satisfaction is needed in order to keep the customers not to go to other products (Angelova & Zekiri, 2011; Rust & Zahorik, 1993). The key to maintain the customers is by keeping their satisfaction as high as possible and tries not to disappoint them at all (Angelova & Zekiri, 2011; Kotler, 1994). Because of that reason, customer satisfaction becomes a construct in monitoring and controlling activities in business by using relationship base (Long, Khalafinezhad, Ismail, & Rasid, 2013; Anderson, Fornell, & Lehmann, 1994; Fornell, 1992).

Liljander & Strandvik (1993) stated that experience in buying a product is not needed in judging the service quality. Evaluating a service can be done by evaluating a service from the provider. However, according to those researchers, customer satisfaction is customer evaluation based on their experienced in the service which they received from the provider. According to Parasuraman et al. (1998) satisfaction is customer feeling as an impact from service given by provider. Therefore, the statements or the questions related to customer satisfaction should be asked to those who already had experience in buying the products/services from the provider.

Trust

Some researchers such as Sarwar, Abbasi, & Pervaiz (2012), Garcia & Valor (2007) and Thompson & Thompson (2003) mentioned that trust had an impact to loyalty. Morgan & Hunt (1994) stated that there are some serial actions in buying a product which can show a relationship between trust and commitment. Customers who trust a provider and have high commitment most likely be loyal customers. It is important for the providers to build customer trust by giving their best services.

Loyalty

Organizations need to develop customer loyalty in their activities. As mention before loyalty is an important factor for the organization in order to the customer to buy their product intentionally. Ladhari *et al*, (2011) defined loyalty as a deeply held commitment. It is considered as a critical determinant of profitability. According to Reichheld and Sasser (1990) a 5 per cent increase in customer retention can enhance profitability by 25 − 85 per cent. In order to keep customer retention, there should be no defect in giving services for the profitable customers. "Profitability results from growth in revenue and market share (for example, referrals and repeat purchases), lower costs of acquiring and serving net customers, and increased productivity" (Reichheld, Markey, & Hopton, 2000).

Hypotheses

> There is a positive correlation between Loyalty, Trust, Satisfaction and Participation.
> Trust, Satisfaction and Participation contribute significantly to Loyalty.

RESEARCH METHOD

The population was all UT's students who registered in the first semester of 2014. The sample was UT's students (as customers) who came to UT's regional centers to solve problems related to their admission process. Respondents were recruited using purposive sampling. According to Parasuraman Zeithaml, and Berry (1985) latent variables such as Services cannot be measured directly. To measure these kinds of variables, researchers need to measure customer perception. To measure students' loyalty, students' trust, students' satisfaction and students' participation, an instrument was developed. The scale was 5 (Likert scale). The research instrument then was distributed to these students.

Theoretically, the relationship between variables is shown in Figure 1. All possible relationships, including the relationship between interaction variables and loyalty are drawn. Interaction between participation and satisfaction which influences loyalty means that satisfaction influences loyalty by considering the influences of participation on satisfaction. In this figure, the ellipses contain latent variables, and rectangles contain indicators.
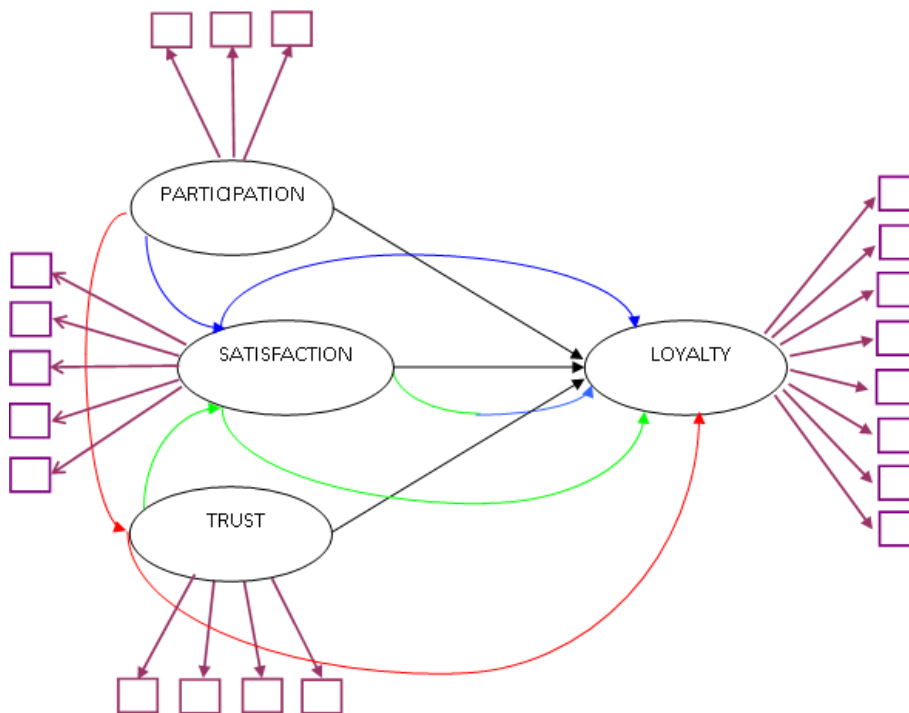

Figure 1. Relationship among variables

All indicators in each variable were factorized by using exploratory factor analysis. If the items in each variable are correct, then they will form one factor only. Otherwise, they measure at least one other factor.

Each factor (latent variable) has a mean value = 0 and variance = 1. This means that the majority of the data for each latent variable will be around zero. For computation, all values in each interaction variable were shifted three points to the right. By doing this, most of the data would be around 3 with variance is still equal to 1. Without shifting the data, there is a chance that (-a) times (-b) is exactly the same as (a) times (b). Even if the result is equal, the meaning is different. After these factors were formed, the next analyses were correlation and multiple regressions.

Theoretically, there is a chance that some independent variables are correlated. Furthermore, the theory says that they are related each other. As a consequence, this relationship will influence the process of forming a regression equation. The function of correlation analysis here is to see how strong the correlation between variables is.

In the regression process, if two independent variables are correlated and both influence the dependent variable, then the variable with the smallest contribution will be thrown out from the equation. Here, the regression analysis is to determine the mathematical relationship between trust, satisfaction, and participation, and their interaction with loyalty.

RESULT

Based on the validity test of items in the instrument, the correlation coefficient between item and total items in each latent variable was significant at $p < 0.01$. In addition, the instrument was reliable. This information can be seen in Table 1.

Table 1. Validity and reliability of the instrument

	Coef. Correlation	Cronbach Alpha
Participation		**0.745**
• Active in Extra Curricular	0.780**	
• Intensive Communication	0.829**	
• Active in Work Group	0.865**	
Satisfaction		**0.896**
• Faculty Services	0.858**	
• Study Programme Services	0.851**	
• Quality of Teaching-Learning	0.817**	
• Quality of Facilities	0.837**	
• Services Quality	0.837**	
Trust		**0.827**
• Similarity with F2F University	0.713**	
• Give the Best	0.829**	
• Trust on Staff	0.869**	
• Promising	0.829**	
Loyalty		**0.905**
• Still Study at UT	0.742**	
• Ask others to be UT students	0.773**	
• Must finish the study in UT	0.799**	
• Be a Member of Alumnus	0.802**	
• Relationship with UT	0.804**	
• Proud of Study Programme	0.788**	
• Proud to be UT's Student	0.799**	
• Even though it is hard, students want to finish their study in UT	0.711**	

**) significant at $p < 0.01$

There were 1,099 respondents from 22 regional centers who completed the instrument. The respondents represented the west and middle of Indonesia. None of the students from eastern Indonesia sent the instrument back. These respondents were mostly students who came to regional centers and had problems with their admission process. In fact, some students did not give responses to some statements.

Table 2 shows the result of the exploratory analysis factors. The number of factors which was formed for each construct variable is one. From Table 2, the smallest Kaiser-Mayer-Olkin

(KMO) value is larger than 0.600 which is still acceptable for running the exploratory factor analysis. Furthermore, Bartlett's tests for all latent variables show that they are significant at $p < 0.01$. This means that factor analysis could be run because the matrix correlation of indicators was not an identity matrix.

Table 2. Exploratory Factor Analysis Result

Latent Variable	KMO	% of Variance Explained	Number of Indicators
Participation	0.609	69.123	3
Satisfaction	0.833	70.564	5
Trust	0.768	65.956	4
Loyalty	0.909	60.531	8

Table 3 shows the coefficients' correlation between latent variables. It can be seen that all independent variables are correlated with each other and significant at $p < 0.01$. These variables, including their interactions are also correlated positively and significantly to loyalty.

Table 3. Correlations between Participation, Satisfaction, Trust, and Interaction Variables and Loyalty

		Participation	Satisfaction	Trust	P*T	P*S	T*S	P*S*T	Loyalty
Participation (P)	Pearson Corr.	1	.536**	.513**	.861**	.864**	.573**	.784**	.510**
	N	1072	1070	1069	1069	1070	1067	1067	1062
Satisfaction (S)	Pearson Corr.	.536**	1	.767**	.734**	.850**	.914**	.825**	.713**
	N	1070	1089	1082	1067	1070	1082	1067	1073
Trust (T)	Pearson Corr.	.513**	.767**	1	.841**	.716**	.909**	.811**	.719**
	N	1069	1082	1086	1069	1067	1082	1067	1072
P*T	Pearson Corr.	.861**	.734**	.841**	1	.926**	.854**	.957**	.675**
	N	1069	1067	1069	1069	1067	1067	1067	1060
P*S	Pearson Corr.	.864**	.850**	.716**	.926**	1	.854**	.959**	.671**
	N	1070	1070	1067	1067	1070	1067	1067	1060
T*S	Pearson Corr.	.573**	.914**	.909**	.854**	.854**	1	.923**	.731**
	N	1067	1082	1082	1067	1067	1082	1067	1069
P*S*T	Pearson Corr.	.784**	.825**	.811**	.957**	.959**	.923**	1	.682**
	N	1067	1067	1067	1067	1067	1067	1067	1058
Loyalty	Pearson Corr.	.510**	.713**	.719**	.675**	.671**	.731**	.682**	1
	N	1062	1073	1072	1060	1060	1069	1058	1076

** Correlation is significant at the 0.01 level (2-tailed).

Trust and satisfaction correlated with each other with a coefficient $r = 0.767**$. Meanwhile, trust and satisfaction were also significantly correlated with Loyalty with a coefficient $r = 0.719**$ and $r = 0.713**$. These coefficient correlation values were big enough in order to influence the regression equation.

Table 4 shows the regression equation. This equation includes the interaction variables. It can be seen that all independent variables significantly contributed to students' loyalty with $p < 0.01$. However, three of four interaction variables had negative signs in regression coefficients.

Table 4. Regression Equation between Participation, Trust, Satisfaction and Loyalty

	Coefficients							
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
Model		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.753	.280		-2.684	.007		
	Participation (P)	.584	.119	.582	4.903	.000	.027	36.982
	Satisfaction (S)	.686	.121	.688	5.649	.000	.026	38.933
	Trust (T)	.801	.134	.802	5.968	.000	.021	47.474
	P*T	-.154	.049	-.797	-3.165	.002	.006	166.401
	P*S	-.124	.045	-.643	-2.721	.007	.007	146.387
	P*S*T	.039	.014	.921	2.766	.006	.003	290.817
	T*S	-.109	.042	-.579	-2.627	.009	.008	127.675
Dependent Variable: Loyalty								

The equation is:
Loyalty=0.801 Trust+0.686 Satisfaction+0.584 Participation+0.039 Participation*Trust*Satisfaction − 0.109 Trust*Satisfaction − 0.124 Participation*Satisfaction − 0.154 Participation*Trust − 0.753.

A rule of thumb is that if VIF > 10, then the multicollinearity is high (Kutner, Nachtsheim & Neter, 2004). Since all independent variables have VIF > 10, all of them were highly correlated. This information can also be seen in Table 3 where all of them are significantly correlated with each other. The minus sign in the regression equation is suspected that because they are highly correlated then most of the positive parts were taken by Participation*Satisfaction*Trust and other interaction variables took the residue which is negative parts (means that if the value in one variable goes up/ down then the value in another variable goes down/ up).

Table 5. Coefficient of Determination (R^2)

Model Summary				
Model	R	R Sqr	Adjusted R Sqr	Std. Error of the Estimate
1	.775[a]	.600	.597	.63629

a. Predictors: (Constant), T*S, Participation, Trust, Satisfaction, P*S*T, P*S, P*T

From Table 5, all independent variables, including the interaction variables have common correlation with loyalty as large as r = 0.775. In other words, variances from these constructs explain 60% of loyalty variance.

DISCUSSION

According to Hsu & Chen (2014), customer participation plays an important role in service. Participation is an active engagement process which can be divided into five categories: preparation, contribution to discussion, group skills, communication skills, and attendance (Dancer & Kamvounias, 2005). If the students have a high GPA, students' participation is strongly related to self-efficacy (Galyon, *et al*, 2012). When interactions among students and interactions between students and tutors are often then students will be motivated to participate in many activities (Jung *et al.*, 2002). It is true that the more diligent students are, the more subject matter they can master. According to Crocker & Algina (2006) the degree of subject matter mastery can be measured by using valid and reliable assessment.

By involving in tutorials, discussions and other academic activities, it can be highly expected that students are more motivated to study harder. Students' participation is also an indicator of loyalty level and students' satisfaction (Chen, Gonyea & Kuh, 2008). Therefore, students' participation, students' satisfaction and trust will influence students' loyalty (Kunanusorn & Puttawong, 2015). These relationships appear in Table 2 where they are significantly correlated with each other.

Students who involved their learning strategies, problems and solution in online learning process had more satisfaction compare to those who did not (Sahin, 2007; Burke, 2011). Interaction between students and instructors in online learning had an impact to students' success and students learning (Joyner et al., 2014; Areti, 2006; Chen & Guo, 2005; Schmidt & Gallegos, 2001). This finding showed that participation influenced students' satisfaction. Support from tutors can motivate students to learn much harder.

Participation*Trust*Satisfaction has correlation with Loyalty as large as r = 0.682**. However, this interaction variable has the biggest correlation with other interaction variables which are Participation*Trust, Participation*Satisfaction and Trust*Satisfaction (with r ≥ 0.923**). Since these three interaction variables share more than 85.2% of their variances, then Participation*Trust*Satisfaction took the highest variance to contribute positively and significantly to loyalty.

Trust*Satisfaction has the biggest correlation with Loyalty (r = 0.731**). This interaction also has large and significant correlation with Participation*Trust*Satisfaction (r =0.923**). However, Trust*Satisfaction only has a correlation smaller than 0.9 with Participation*Trust (r=0.854**) and with Participation*Satisfaction (r=0.854**). Since more than 85.2% of variance is already taken by Participation*Trust*Satisfaction, then the rest of the variance could probably explain the negative impact of Trust*Satisfaction to loyalty.

Participation*Satisfaction has r = 671** with Loyalty. This Participation*Satisfaction has large correlation with Participation*Trust*Satisfaction (r = 0.959**) and with Participation*Trust (r =0.926**). However, Participation*Satisfaction has lower correlation with Trust*Satisfaction (r = 0.854**). Since more than 85.2% of the variance of Participation*Satisfaction has already been taken by Participation*Trust*Satisfaction then Participation*Trust could took the negative parts of the rest of the relationship.

Participation*Trust is significantly correlated with loyalty (r = 0.675**). In addition, this variable is strongly correlated with Participation*Trust*Satisfaction (r = 0.957**) and with Participation*Satisfaction (r = 0.926**). However, Participation*Trust has lower correlation with Trust*Satisfaction (r = 0.854**). Because more than 85.2% of its variance is already taken by Participation*Trust*Satisfaction then Participation*Satisfaction could take the rest of its relationship to explain the negative impact on loyalty.

For every educational institution, especially UT in this case, students' loyalty must be considered as an important factor. Students' loyalty is influenced by some other factors, such as students' satisfaction, students' participation and students' trust. Meanwhile, some research shows that customers' loyalty is important in attracting customers. In addition,

satisfaction, participation, and trust influence each other. As a consequence, these three entities should also be considered and should be improved in order to increase students' loyalty. Educational institutions cannot avoid them.

CONCLUSION

All latent/ construct variables are positively and significantly correlated with each other. In addition, all independent variables, including interaction variables contribute significantly to Loyalty. Furthermore, 60% of variance in Loyalty can be explained by Trust, Satisfaction, Participation,Participation*Trust*Satisfaction, Trust*Satisfaction, Participation*Satisfaction, and Participation*Trust.

This educational institution cannot avoid the factors such as students' loyalty, students' participation, students' trust and students' satisfaction. They are related, and they also influence each other. Improving loyalty means that educational institutions simultaneously promote satisfaction, trust and participation become much promising. By improving them, institution will also upgrade all services that they offer.

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