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The Effect of Trust Dimension Towards E-Commerce Customer Participation

Nikita Astria
Departemen Magister Manajemen
Universitas Komputer Indonesia
Bandung, Indonesia
nikita.75218015@mahasiswa.unikom.ac.id

Rahma Wahdiniwaty
Departemen Magister Manajemen
Universitas Komputer Indonesia
Bandung, Indonesia.
Rahma@unikom.ac.id

***Abstract*— The purposes of this study are to analyze the effects of the level of participation of e-commerce users in Indonesia each through the variables of benevolence, integrity, and ability and to analyze the effect of the trust variable on the level of e-commerce customer participation in Indonesia. This research is a sample research using e-commerce customers in Indonesia. Data collection using a questionnaire which was then measured using a Likert scale. Total respondents involved in this study were 152 people who were users of internet services in Indonesia who made purchases of goods or services through e-commerce media or the internet. Respondents were sent questionnaires via mailing lists. The data is then processed using the Structural Equation Model (SEM) analysis program. The results showed that three predictor variables that had an influence on customer trust variables namely the variable vendor integrity, benevolences, and ability. In fact, only the integrity variable had a significant and positive influence. As for other predictor variables namely the ability, benevolence, and vendor integrity and customer trust have a positive and significant influence on e-commerce customer participation variables. Therefore, the variables that are very important in influencing e-commerce customer participation in Indonesia include vendor integrity and customer trust, so this variable is important to be increased so that e-commerce customer participation in Indonesia can also be increased.**

Keywords—E-Commerce, Participation, Trust, Ability, Benevolence, Integrity

I. INTRODUCTION

Internet or Interconnection Networking is an interconnected computer network that uses the Global Transmission Control Protocol / Internet Protocol Suite (TCP / IP) as a packet-switched communication protocol to serve billions of users throughout the world. Its use can help to complete our various daily activities, for example research, communication, business, entertainment, and so on. The internet has experienced extraordinary developments since its inception by the United States Department of Defense in 1969. This technology became even more perfect after the introduction of World Wide Web (WWW) technology [1].

Business transactions that uses internet is famous as Electronic Commerce (e-commerce) [1]. E-commerce characteristics consist of transactions occurring between two parties, the exchange of goods, services, or information, and the internet as the main medium in the transaction process [4]. In practice, e-commerce transactions can occur between business organizations and fellow business organizations (B2B) and between business organizations and consumers (B2C) [1-4].

Of the various reasons put forward regarding the popularity of internet technology for use today. In addition to being able to save costs in the form of transaction costs, direct communication costs incurred while working in the office, it is also considered that the use of technology today is very flexible, easy, and interactive. Technology is also able to expand everything quickly such as information circulating. In addition, because it connects thousands of networks that exist throughout the world so that connectivity is owned and the extent of the use of coverage [2].

Compared to conventional transactions, conducting transactions via the internet does not mean that forms of crime committed by irresponsible parties can be avoided. There are quite a lot of forms of crime that currently exist ranging from credit card piracy, illegal transfer of funds through certain elements, etc. so that it can be said that the security system that is owned is still very weak. For this reason, this is a serious study that is also important about the security structure of e-commerce itself for computers and information technology experts [1] [5-7].

No matter how good an e-commerce system is created, it still has risks. Among other factors, customer trust is considered to be a core factor that can influence transactions through e-commerce [9-11]. Only customers who have the trust will dare to make transactions through internet media. Without trust from customers, it is impossible for e-commerce transactions to occur. Trust is developed by 3 measures namely ability, kindness, and integrity [12]. These three dimensions become a notable basis for developing one's trust so that they can trust a particular media, transaction, or commitment.

II. METHOD

Data was collected through a survey using a questionnaire. The questionnaire was distributed to respondents using e-commerce users through discussion groups on the internet (mailing list). Questionnaires filled out by respondents were then seen filling in because only the questionnaires were filled in completely that were suitable for use. Each statement on the questionnaire was given a score according to the Likert scale. The selected data is coded according to variables and variable classifications, and then tabulated using SPSS software. Data analysis uses the Structural Equation Model (SEM) method. For descriptive analysis the SPSS 13 program is used, while for structural analysis using AMOS 4. There are seven steps that must be done in SEM modeling namely:

1. Development of Theory Based on Model

This step is a process of model making that will be studied and has a sound theoretical foundation. Without a strong theoretical rationale, a model does not make sense when it is analyzed by SEM. SEM is not using to produce a model, but to confirm a model that is supported by experience-based theory.

2. Making a Flow Chart (Path Diagram)

In making a path diagram, the theoretical model is the earliest step described. This is intended to identify a causal relationship by the examiner to facilitate the researcher. Cause and effect relationships can be represented in the form of a path diagram through the operation of SEM calculation software (AMOS, for example). Equations through images and equations into estimates can be changed through the language of the program. This step is a process for determining / describing the causal paths of a variable to other variables (exogenous-variables with endogenous-variables or between endogenous variables) after determining a model.

3. Convert Flow Charts into a Series of Structural Equations

Once theoretical model has been developed and presented in a flow chart, the researcher can begin to convert the specifications of the model into a series of comparisons. The comparison made consists of:

a. structural comparisons

b. The comparison of the specifications of the measurement model (measurement model)

4. Selecting the Input Matrix and Estimation Technique for the Model Built

The size of the sample depends on the estimation method used for the parameters. If the parameter estimation uses the MLE method, the recommended sample size is 100-200.

5. Assessing the Possibility of an Identification Problem

Identification problems can occur due to the following symptoms:

a. A very large standard error on one or more coefficients.

b. The program cannot produce a matrix of information to be presented.

c. The appearance of strange numbers, such as the presence of a deviation from negative errors.

e. There is a very strong correlation between the estimated obtained coefficients (> 0.9)

6. Evaluation of the Goodness of Fit Criteria

At this stage, the relevance of the model is evaluated by evaluating the different quality criteria. For this reason, the first step as a form of evaluation if the data can meet the SEM assumptions. This model can be tested if the assumptions are said to be fulfilled.

7. Model Interpretations and Modifications

Based on the following theory, it can be stated statistically significant if the model is said to be accepted, the causality model proposed through interpretation. The model can be modified so that it can create a competitive model and then differentiate it from the original model. It is better if the model is chosen if it has theoretically justified.

III. RESULTS

Reliability is a measurement of the stability and consistency of respondents in answering matters related to the construct of questions which are dimensions of a variable and arranged in a questionnaire form. The reliability test can be carried out jointly on all questions. The criterion is stated as the reliability of a research variable as seen from the value of its reliability constraint, if it is more than 0.60 then it is declared reliable. The results of the calculation of construct reliability for each construct are display in the following table:

Table1. Result of reliability test

Construct	*Construct Reliability*	*Information*
Ability	0,66	Accepted
Benevolence	0,92	Good
Integrity	0,65	Accepted
Trust	0,74	Accepted
Participation	0,81	Accepted

With the results of the calculations, it was found that all the constructs proposed in the study had fulfilled the requirements to be suitable for use. This is based on the absence of values less than 0.60 so that they are all reliable.

a) Ability has a construct reliability of 0.66 so that it is declared acceptable because it is more than 0.60.
b) Benevolence has a construct reliability of 0.92 so that it is declared good because it has a very large value and more than 0.60.
c) Integrity has a construct reliability of 0.65 so that it is declared acceptable because it is more than 0.60.
d) Trust has a construct reliability of 0.74 so that it is declared acceptable because it is more than 0.60.
e) Participation has a construct reliability of 0.81 so that it is declared acceptable because it is more than 0.60.

The SEM model calculation results in a goodness of fit index are disclose in the table below

Table 2. Goodness of Fit Index Calculation Results

Criteria	Model Result	Critical Value	Information
Chi-Square	85,028	Small	Good
Probability	0,327	≥0,05	Good
RMSEA	0,021	≤0,08	Good
GFI	0,924	≥0,90	Good
AGFI	0,903	≥0,90	Good
CMIN/DF	1,064	≤2,00	Good
TLI	0,991	≥0,95	Good
CFI	0,993	≥0,95	Good

Based on the table all testing criteria show good results. Model testing has resulted in good confirmation of the factor dimensions and causality relationships between factors. Thus, the model can be accepted .

Table 3 explain about the hypothesis testing result using confidence level 0,05; D:Direct Effect; I: Indirect Effect; Q:Total Effect.

Table 3. Hypothesis Testing Result

Hypothesis	Variable X	Variable Y	Coefficient (P-value)	Information*)
H1	*Integrity*	*Participation*	D 0,278 (0,034) I 0,292 T 0,57	Significant
H2	*Benevolence*	*Participation*	D 0,018 (0,823) I 0,087 T 0,105	Not Significant
H3	*Ability*	*Participation*	D 0,047 (0,602) I 0,014 T 0,061	Not Significant
H4	*Trust*	*Participation*	0,564 (0,000)	Significant

The result showed in table 1 as follows:

1. Vendor Integrity Has Positive Impact on E-commerce Customer Participation Rates

Then in the last hypothesis with a total effect of 0.57 and a p-value of 0.304, it turns out that there were positive and significant results on participation through vendor integrity. From the table it is found that the direct effect is 0.278 and the indirect effect is 0.292.

2. Vendor Benevolence Has a Positive Impact on the Level of E-commerce Customer Participation

This third hypothesis is still stated to be proven even though the resulting effect was not significant. Benevolence variable on Participation with direct effects of 0.018 and indirect effects of 0.087 and total effects of 0.105.

3. Vendor Ability Has a Positive Impact on E-commerce Customer Participation Rates

In the table shown, the total effect on the ability variable on participation shows the number 0.061. This is the sum of the direct effects of 0.047 and indirect effects of 0.014. With a p-value of 0.062 and a level of 0.05, it was declared insignificant even though the hypothesis remained proven correct.

4. Trust has a positive effect on the level of e-commerce customer participation

With the results as stated above, trust has a value of 0,000 which directly has a positive impact on the participation variable of 0.0564. Based on the existing criteria that the 0.05 confidence level will be continued because the p-value is less than 0.05 significantly. Therefore, the hypothesis proposed is true.

IV. Discussion

1. The Participation Rate of Costumer and Vendor Integrity in E-Commerce.

According to the results of the study, there are positive and also significant effects that are shown by vendor integrity on e-commerce customer participation in Indonesia both directly and indirectly. The purchase intention which is used as one of the constructs of participation seen in this study has a positive and significant impact produced by the variable of integrity [17]. This shows that if the integrity of the vendor is high then the level of e-commerce customer participation will also be high. In other words, to foster customer participation, the integrity variable is a variable that is considered important and considered by respondents as e-commerce users in Indonesia.

2. The Participation Rate and Vendor Benevolence of Costumer in E-Commerce.

In this study, it was found that vendor benevolence was not significant in influencing the level of e-commerce customer participation in Indonesia either directly or indirectly. The effect is positive, but not so great that it is not a variable to consider. Benevolence vendors have a positive and not significant effect on the purchase intentions (sustainability intentions) which is one indicator of the participation construction measured in this study [17]. The vendor benevolence variable in this study is not an important variable for e-commerce respondents in Indonesia in increasing their participation because the results of the calculation are not significant.

3. The Participation Rate of Costumer and Vendor Ability in E-Commerce.

This research showing that supplier ability has a positive, direct and indirect effect on the participation rate of e-commerce users in Indonesia, but this effect is not significant. Although it has little effect, it is nevertheless positive for the purchase of sustainability, one of the participation indicators measured in this study [17]. Based on the results of the survey, it was determined that the capacity provider variable is not an important variable to consider when you want to increase the participation of e-commerce users in Indonesia.

4. The Participation Rate and Trust of Costumer in E-Commerce.

The results of this study showed that trust has a positive and high impact on the direct variable of e-commerce user participation in Indonesia. The results of this study support a study showing that provider trust giving a lot of good spirit to component of the online group when they meet other community members so that they do not need the money (shopping) to execute e-commerce transactions [12]. Members who have more e-commerce experience will have less feelings about e-commerce issues than members who know less about them. When using this online transaction, trust is very important. Trust has been shown to increase customer engagement in ecommerce.

E-commerce customer engagement can be viewed based on consumer loyalty/sustainability indicators in completing transactions. The research shows results that show a positive and significant confidence in e-commerce customer loyalty [13]. Trust has a positive and significant impact on e-commerce participation variables. Trust is an important factor in participating in e-commerce [4]. In addition, the trust variable has a positive and significant impact on the client engagement variable, and engagement contributes to participation [10].

In addition, the trust variable has a positive and significant impact on the sustainability (intention) variable, which is an indication of the participation structure required in this study [14-16]. The reliability variable had the best impact on the intention to purchasing variable over the others [16]. Like the results of previous studies, according to respondents who completed e-commerce questionnaires in Indonesia, the trust variable is a very important variable to increase participation in e-commerce transactions. If the level of participation in the use of e-commerce is higher, it is because of the high degree of confidence in the use of e-commerce.

V. CONCLUSION

Trust has a significant impact and it is a direct positive to the participation in Indonesia. Ability and benevolence have a direct and indirect positive impact on the participation of the costumer in Indonesia but is is not significant. At the same time, the integrity of suppliers has a direct and indirect positive impact on the participation of e-commerce customers in Indonesia which is vital. The analysis and conclusions indicate that only the supplier's health variable has a positive and significant impact on the confidence of the e-commerce customer in Indonesia. According to the basic theory of trust dimensions, two other variables namely the ability and benevolence variable, should have a significant and also positive impact on trust. In addition, variables that have a positive and significant impact on the participation of e-commerce customers in Indonesia were only variables of supplier integrity and customer confidence, while the vendor benevolences and vendor abilities impact to participations.

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