

THE EFFECT OF PERCEIVED VALUE ON E-COMMERCE APPLICATIONS IN FORMING CUSTOMER PURCHASE INTEREST AND ITS EFFECT ON USER LOYALTY

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Abstract

This reserach gives special attention to the value that drives users to engage in trading activities through e-commerce. The purpose of this study is to identify the effect of perceived value on user buying interest, the effect of purchase intention on the level of trust, the effect of trust on the level of satisfaction, the effect of trust on the level of loyalty, and the effect of satisfaction on the level of loyalty. This research uses Structural Equation Modelling (SEM) analyzed by SPSS AMOS software. This study proves that perceived value is able to influence purchase intention and user trust, which in turn will form loyalty. The practical implications of this research are to provide input on the importance of perceived value to build customer loyalty, which in turn can provide sustainable benefits.

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1. Introduction

Today, e-commerce applications provide space for consumers to take part in the sales process, share knowledge about products and services with other parties (Zhou et al., 2013). E-commerce users can share experiences with products or services after making a purchase, this experience can help others to evaluate decisions before making a purchase (Chen & Shen, 2015). The industrial revolution 4.0 which combines technology and the internet provides enormous opportunities for all aspects (Nani & Lina, 2020). Currently, trading activities through e-commerce have grown rapidly in recent years. Based on data from the Ministry of Communication and Information Technology (2020), internet users in Indonesia are dominated by teenagers aged 15-19 years or equivalent to 80 percent of the population of internet users, which has reached 82 million people, and is ranked 8th in the world in terms of active internet users.

Considering the large market potential of trading activities through e-commerce applications, research is needed to explain the motives that encourage users to use e-commerce applications. To compete and excel in an increasingly competitive industry, business actors must have advantages that come from performance, financial, market positioning and can create added value for the company (Novita & Husna, 2020). Thus, a deeper understanding of purchase intention is needed which is influenced by perceived value in the context of e-commerce. Previous research has concluded that there is an influence between perceived value on user behavior in various contexts, ranging from casual shopping (Kesari & Atulkar, 2016), online shopping (Carlson et al., 2015) and e-commerce (Xu et al., 2015). However, this research is still considered to focus on general values and does not pay attention to the social values perceived by users. Several studies have proven that user behavior is influenced by utilitarian and hedonic values (M. Li et al., 2012; Lin & Lu, 2015), but has not touched on the influence of social values.

Gan & Wang, (2017) research found that consumer satisfaction and purchase intentions are influenced by how much social value is felt by users, this value can be understood from the level of sharing and social interaction, and getting recognition from other consumers. After the purchase interest is formed in e-commerce users, the next step that is no less important is how to convince users to believe in making transactions through e-commerce applications. Research by Li et al, (2015) shows that user loyalty is strongly influenced by trust in e-commerce companies. According to Permatasari & Anggarini, (2020) purchasing decisions made by consumers will affect the level of satisfaction which in turn will form user loyalty.

Research conducted by Carlson, O'Cass, & Ahrholdt, (2015), Kesari & Atulkar, (2016), Xu et al, (2015) concluded that perceived value can shape buying interest and increase user satisfaction. However, the research still focuses on the values attached to the product. Therefore, this study pays attention to the social value perceived by users, as well as how it can complement other values to form buying interest, provide trust, and form customer loyalty. Empirical data were collected among e-commerce users through an online survey, and a structural equation



model was conducted to assess the model and test hypotheses. Thus, this study explains user behavior in e-commerce in terms of perceived value, thereby enriching related studies and deepening understanding of consumer behavior. In addition, this research is expected to offer a newer understanding of how perceived value affects user behavior in the context of e-commerce.

2. Literature Review

Carlson, O’Cass, & Ahrholdt, (2015) explained that user satisfaction with online channels is influenced by the value perceived by consumers. Kesari & Atulkar, (2016) states that buyer satisfaction is significantly influenced by the utilitarian and hedonic values felt by consumers. Functional benefits such as convenience, cost savings, and good performance are defined as utilitarian values (Hsu & Lin, 2016). Meanwhile, according to Gan & Wang, (2017), hedonic value is more related to self-satisfaction and happiness. users will get greater hedonic value if they get a good experience and enjoy the shopping process. Research by Xu, Peak, & Prybutok, (2015) and Hsu & Lin, (2016) concluded that utilitarian values and hedonic values have a significant effect on purchase intention and user satisfaction, this is because users can easily find the products they want. deem it suitable, and feel that the money they spend is worth it. Based on this, the following hypothesis is:

H1: Utilitarian value affects purchase intention.

H2: Hedonic value affects purchase intention.

Hu, Kettinger, & Poston, (2015) stated that online media user satisfaction is significantly influenced by social values. Research by Kim, Sun, & Kim, (2013) also confirms that social values significantly influence consumer interest in using e-commerce. Social values can foster feelings of acceptance, give impressions, build purchase intentions and lead to satisfaction. Based on this, the following hypothesis is:

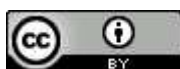
H3: Social value affects purchase intention.

If purchase intention starts to appear in e-commerce users, then what must be managed properly is a way to convince consumers to believe in making transactions through e-commerce applications. In the e-commerce business, Berraies et al., (2017) concluded, to be able to get customer loyalty, e-commerce must first earn their trust. According to Terzidis et al., (2013), because in e-commerce applications customers do not interact directly with the seller, the role of trust becomes more important, and consumers consciously choose products of their own accord and with all the risks that can occur (Febrian & Hapsari, 2019).

H4: Purchase intention affects user trust.

According to Berraies et al., (2017), trust is closely related to customer satisfaction. In the context of online applications, Terzidis et al., (2013) research states that there is a positive influence between consumer trust and satisfaction.

H5: Trust affects user satisfaction.



Online transactions are believed to present many risks, to minimize these risks, trust is a major factor in building loyalty to consumers (Terzidis et al., 2013). Research by Berraies et al., (2017) concluded that, the high risk of online transactions is due to consumers having limited access to interactions with sellers, and related to sensitive information, such as credit card numbers, consumer addresses, and other closed transaction identities.

H6: Trust affects user loyalty.

According to Li et al., (2015), customer loyalty will result in repeat purchases, which is a distinct advantage in a business. Preferences and attitudes shown as forms of customer satisfaction are generally considered to be the main drivers of customer loyalty (Berraies et al., 2017). According to Terzidis et al., (2013) user loyalty is conciseness difficult to obtain in today's internet world, so that satisfaction with merchants and their services is more important in online marketing than offline.

H7: Satisfaction affects user loyalty.

3. Research Methods

The population in this study are users of e-commerce applications, because the population is too large, and is classified as an unlimited population, so the sampling technique chosen is non-probability sampling, using judgmental sampling technique. In selecting the sample, the researcher made an assessment of several characteristics that were adapted to the research objectives. This study used a sample of 243 respondents who filled out the questionnaire, with 93% of respondents living in Lampung Province. The research data was taken during October - November 2020. If referring to the provisions of Ghozali, (2017), the number of representative samples for the use of the structural equation model is around 100-200 samples. Thus, the sample size used in this study has met the assumptions required in the SEM test.

The variables proposed in this study are described in the operational definition which can be seen in Table 1.

Table 1. Operational Definition of Variables

Variable	Item Measurement	Reference
1. <i>Utilitarian Value</i>	a. The product quality of the e-commerce application is reliable b. Products from e-commerce applications are offered at competitive prices c. Shopping using an e-commerce application allows me to find more quickly what products are right for me d. Using e-commerce applications for shopping is very convenient	(Gan & Wang, 2017)
2. <i>Hedonic</i>	a. Using e-commerce applications for	(Gan &



<i>Value</i>	shopping is something I enjoy b. Using e-commerce apps for shopping makes me feel good c. I feel interested in using an e-commerce application for shopping d. Using e-commerce applications for shopping gives me great satisfaction	Wang, 2017)
3. <i>Social Value</i>	a. Using e-commerce applications for shopping makes me feel welcome in the social environment around me b. Using e-commerce applications for shopping makes a good impression on me in the eyes of others c. Using e-commerce applications to shop increases other people's perceptions of me d. My environment approves the use of e-commerce applications for shopping	(Gan & Wang, 2017)
4. <i>Purchase Intention</i>	a. I predict I will shop again using e-commerce applications b. I want to shop with the same application in the future c. I will recommend purchases I make to others	(Gan & Wang, 2017)
5. <i>Trust</i>	a. I am ready to provide personal information on e-commerce applications b. I will provide debit/credit card information to record in an e-commerce application c. E-commerce applications are managed by professionals d. I have no problem paying in advance for product purchases via e-commerce applications	(Berraies et al., 2017)
6. <i>Satisfaction</i>	a. In general, I am satisfied with the quality of e-commerce application services b. The e-commerce application is fun to use c. I feel comfortable using e-commerce applications	Berraies et al., 2017)
7. <i>Loyalty</i>	a. I would recommend e-commerce applications to others b. I have recommended e-commerce applications to others. Satisfaction with the space provided	Berraies et al., 2017)



- c. I will continue to transact using e-commerce applications
- d. I choose this e-commerce app over others

The test tool used in this research is Structural Equation Modeling (SEM) using the IBM SPSS AMOS program. Testing a series of causal relationships between variables simultaneously is possible by using the SEM multivariate statistical technique (Hair, Hult, Ringle, & Rstedt, 2014).

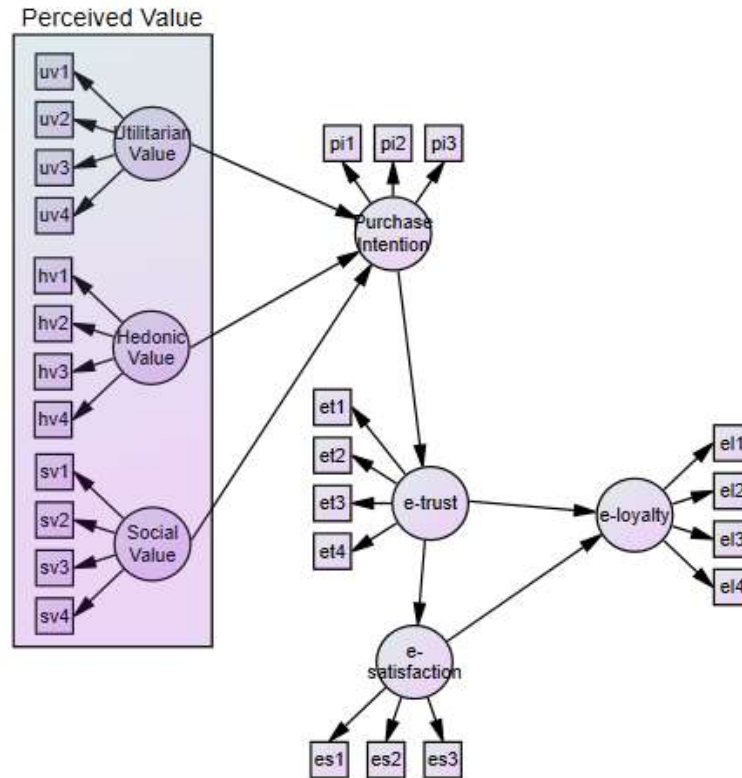


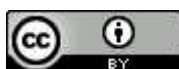
Figure 1. Research Conceptual Model

4. Results

To meet the valid and reliable criteria for measuring instruments used in the study, a quality test was carried out on the research instruments. The research instrument consisted of 26 questionnaires representing each variable, with 234 respondents. Testing the validity and reliability of the research instrument was carried out using the IBM SPSS AMOS version 22 program. The test results for the instrument can be seen in the following table.

Table 2. Validity & Reliability Test Results

Variable	Item	Factor Loading	Construct Reliability	Average Variance Extracted
Utilitarian Value	UV1	0,800	0,9137	0,7267
	UV2	0,794		



	UV3	0,917		
	UV4	0,892		
Hedonic Value	HV1	0,868		
	HV2	0,814	0,8907	0,6712
	HV3	0,787		
	HV4	0,806		
Social Value	SV1	0,864		
	SV2	0,795	0,9166	0,7337
	SV3	0,862		
	SV4	0,902		
Purchase Intention	PI1	0,818		
	PI2	0,776	0,8357	0,6291
	PI3	0,785		
E-Trust	ET1	0,850		
	ET2	0,863	0,9082	0,7123
	ET3	0,853		
	ET4	0,809		
E-Satisfaction	ES1	0,869		
	ES2	0,954	0,9100	0,7721
	ES3	0,807		
E-Loyalty	EL1	0,738		
	EL2	0,746	0,8296	0,5496
	EL3	0,688		
	EL4	0,790		

Source: Primary Data Processed, 2020

According to (Ghozali, 2017), a research instrument can be said to be valid if it has a factor loading value > 0.5 . The results of the test on the validity of the study, which represents 7 variables, have a factor loading value of > 0.5 , so the instrument can be used for research. Ghozali (2017) states that testing is reliable if it has a construct reliability value > 0.7 and an average variance extracted value > 0.5 . From the data obtained in the study, the test results show that the C.R value in each variable is greater than 0.7 and the AVE value in each variable is greater than 0.5.

To find out whether the research model is under the theory or not, it is necessary to assess the model fit index or goodness of fit.



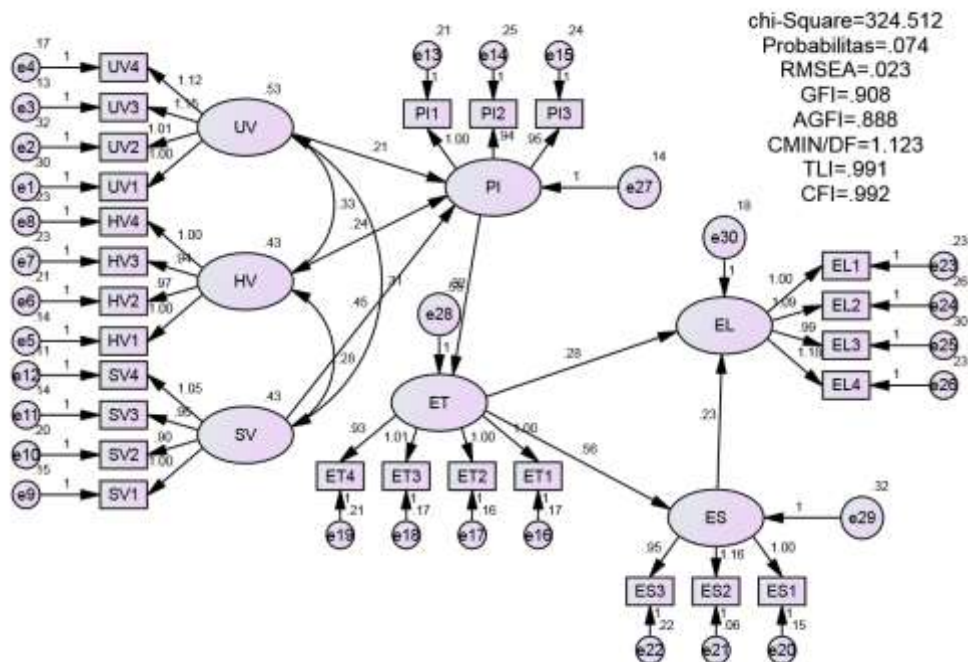


Figure 2. Structural Equation Model Test Results

Table 3. Full Model Test Results

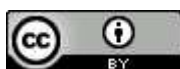
<i>Goodness of fit index</i>	<i>Cut-off value</i>	Research Model	Model
<i>Significant probability</i>	≥ 0.05	0,074	Fit
RMSEA	≤ 0.08	0,023	Fit
GFI	≥ 0.90	0,908	Fit
AGFI	≥ 0.90	0,888	Marginal
CMIN/DF	≤ 2.0	1,123	Fit
TLI	≥ 0.90	0,991	Fit
CFI	≥ 0.90	0,992	Fit

Source: Primary Data Processed, 2020

Based on the data in table 3, it can be concluded that the research model has met the goodness of fit criteria. This is indicated by the results of CMIN / DF in this study 1,123 (fit). Goodness of Fit Index (GFI) of 0.908 (fit). The RMSEA in this study was 0.023 (fit). AGFI value is 0.888 (marginal fit). TLI in this study is 0.991 (fit). CFI in the study was 0.992 (fit).

Table 4. Hypothesis Testing

			Estimate	S.E.	C.R.	P	Hypothesis
Utilitarian Value	→	Purchase Intention	.210	.071	2.950	0,003	Positive Significant
Hedonic Value	→	Purchase Intention	.237	.082	2.872	0,001	Positive Significant
Social Value	→	Purchase Intention	.452	.078	5.788	0,000	Positive Significant



			Estimate	S.E.	C.R.	P	Hypothesis
Purchase Intention	→	E-Trust	.551	.074	7.447	0,000	Positive Significant
E-Trust	→	E-Satisfaction	.558	.068	8.238	0,000	Positive Significant
E-Trust	→	E-Loyalty	.280	.065	4.300	0,000	Positive Significant
E-Satisfaction	→	E-Loyalty	.229	.061	3.734	0,000	Positive Significant

Source: Primary Data Processed, 2020

H1: Effect between Utilitarian Value and Purchase Intention

The regression value between utilitarian value and purchase intention is 0.210 with a C.R value of 2.950, this proves that utilitarian value has a positive effect on purchase intention, and it can be concluded that high utilitarian value will increase purchase intention. This is in line with research conducted by Hsu & Lin, (2016) which states that if consumers feel the functional benefits of certain products, it will increase purchase interest. In this study, the utilitarian value has the smallest regression value of the endogenous variables, e-commerce companies must pay special attention to increasing the ease of use of applications, so that users feel comfortable in using e-commerce applications.

H2: Effect between Hedonic Value and Purchase Intention

The regression value between hedonic value and purchase intention is 0.237 with a C.R value of 2.872, this proves that hedonic value has a positive effect on purchase intention. This study concludes that high hedonic value will increase purchase interest. Research by Hsu & Lin, (2016), found that consumer satisfaction and happiness are a reflection of the hedonic value felt by consumers and affect consumers' repeated purchase intention.

H3: Effect between Social Value and Purchase Intention

The regression value between the relationship between social value and purchase intention is 0.452 and the value of C.R is 5.788, it can be concluded that the relationship between social value and purchase intention has a positive effect. These results are in line with research conducted by Kim, Sun, & Kim, (2013), which concluded that a good impression by consumers can lead to a feeling of comfort and develop a feeling of satisfaction which will shape consumer purchase interest. Social value has the highest regression value of all endogenous variables, social value can provide added value to the shopping experience felt by users. When users find it easy to share with other users, and interact with the same interests and interests, this will form a bond between the company and its consumers.

H4: Effect between Purchase Interest and User Trust

The regression value between the relationship between purchase intention and user trust is 0.551 and the C.R value is 7.447, this shows that the better the



purchase intention, the more user trust will be. The results of this study are in line with research conducted by Berraies et al., (2017), which concluded that purchase intention has an effect on consumer confidence, and in the e-commerce industry consumer confidence is something that must be managed properly, considering the risk in this business is quite large.

H5: Effect between User Trust and User Satisfaction

The regression value between the relationship between user trust and user satisfaction is 0.558 and the value of C.R is 8.238, so it can be concluded that the better user trust, the increased user satisfaction. Berraies et al.,(2017) research also concluded that there is a positive effect between the level of customer trust on satisfaction. In the e-commerce industry, user trust plays a central role in shaping the customer base. Security of user data and transactions is a central issue to form the security image of e-commerce companies, which then has implications for user satisfaction with company services.

H6: Effect between User Trust and User Loyalty

The regression value between user trust and user loyalty is 0.280 and a C.R value of 4.300, so it can be concluded that user trust has a positive effect on the level of user loyalty. The results of this study are supported by research conducted by Berraies et al., (2017) which states that consumer trust is an important factor in supporting the formation of consumer loyalty along with the high risk.

H7: Effect between User Satisfaction and User Loyalty

The regression value between user satisfaction and user loyalty is 0.229 and a C.R value of 3.734, which illustrates that the better user satisfaction, the increased user loyalty. This conclusion is following research conducted by Berraies et al., (2017) which states that user loyalty is the main goal in internet-based marketing, so maintaining user satisfaction levels is a separate task for online marketers.

5. Conclusion and Suggestion

Conclusion

From the results of the research that has been done, it can be concluded that utilitarian value has a positive effect on user purchase intention, hedonic value has a positive effect on user purchase intention, social value has a positive effect on user purchase intention, purchase intention has a positive effect on user trust, trust has a positive effect on user purchase intention, trust has a positive effect on user loyalty, and satisfaction has a positive effect on user loyalty.

Implication of The Study

Based on these conclusions, the managerial implications that can be formulated are that e-commerce companies should pay more attention to the convenience factor in transacting using applications, so that they can increase the utilitarian value, which is the variable with the smallest regression value compared to other exogenous variables. Furthermore, to maintain user loyalty in the midst of increasingly fierce competition, companies must pay special attention to user trust, especially regarding the security of personal data, so that users can feel comfortable and safe in shopping using e-commerce applications.



Future Research Directions

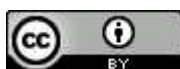
The results of this study have not been able to explain how far the influence of user loyalty on repeat buying behavior is, so for further research it is recommended to add a repeat purchase variable to find out how much influence it has on user loyalty, and other factors that influence it.

6. Acknowledgement

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