



Online Purchase Intention of E-Commerce Consumers West Java: Application of the Extended Technology Acceptance Model

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ABSTRACT

The aimed of this research is to determine the effect Perceived usefulness dan perceived ease of use on online buying interest in the West Java region. This study uses a quantitative exploration strategy through the use of surveys. The population of this research is internet users who come from West Java, Indonesia. The sampling technique used in this study namely purposive sampling. Overall, there were 190 questionnaires distributed, and 178 (93.7%) questionnaires that could be used for statistical testing. The statistical analysis technique used in this study is the regression test using STATA. This research found perceived usefulness and perceived ease of use can affect online purchase intention. The contribution that can be made from this research is that perceived usefulness has the biggest impact on online purchase intention.

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INTRODUCTION

The rapid development of technology has brought changes in consumer behavior which has begun to shift from traditional to online shopping. Online purchasing has increased for more than 20 years and online shopping has increased views on security, service, popularity and efficiency (Laohapensang, 2009). Nowadays, online shopping plays an important role where online consumers can easily access and compare products quickly (Rehman et al., 2019).

Indonesia's digital economy has great potential to develop. Press Release No.28/HM/KOMINFO/03/2023 shows that active internet users reached 212.9 million people in January 2023, sector contribution-commerce (electronic commerce) in Indonesia amounted to USD 59 billion and is projected to increase to USD 130 billion in 2025 (KOMINFO, 2023). The continued increase in the development of internet users and the electronic commerce sector has led to an even better understanding. One is understanding consumer interests when purchasing online (on the network).

Several factors are determinants that can influence online shopping interest. Perceived usefulness and perceived ease of use are considered to influence online purchasing intentions (Gao

& Bai, 2014; Lim et al., 2016; Rehman et al., 2019). Besides that, Perceived usefulness and perceived ease of use considered a significant predictors of the technology acceptance model (TAM) which plays an important role in increasing purchase intention (Cho & Sagynov, 2015; Davis, 1989).

(Moslehpour et al., 2018) found that Perceived usefulness and perceived ease of use can influence online purchasing intentions. Perceived usefulness explains that technology is a useful tool for shopping online where the shoppers online have the hope of finding their own profits via the internet which can increase their intention to buy. Perceived ease of use assumes that technology that is easy to use will stimulate consumers to make purchases online. Ease of accessing and placing orders can be one of the main factors in consumers' interest in shopping through e-commerce.

This research aims to determine the effect of Perceived usefulness and perceived ease of use on online purchasing interest in West Java. The technology acceptance model (TAM) will be a theoretical reference in this research by looking at how perceived usefulness and perceived ease of use increase consumers' online purchasing interest. E-commerce. The potential for increasing internet users in Indonesia and the rapid development of the digital economy, especially the circulation of money in e-commerce. This research can be expected to provide various novelty views regarding online consumer behavior. Next, this research will provide the literature review, research methods, results, and conclusions.

Davis (1989) developed TAM based on the theory of reasoned action (TRA), which was previously introduced (Fishbein & Ajzen, 1977). TRA submits that attitude can be influenced by someone's beliefs. TRA is theorized to explain human behavior in general, while TAM specifically explains the determinants of general computer acceptance and is able to explain user behavior in various computing technologies of end users and user populations. Furthermore, TAM assumes that there are two types of beliefs, such as influence Perceived usefulness and perceived ease of use is a vital indicator that is considered to have an impact on the adoption of information technology (Davis, 1989). TAM is considered useful for predicting the behavior of experienced and inexperienced consumers by emphasizing differences in the determinants of purchase intention (Taylor & Todd, 1995; Venkatesh & Davis, 2000).

(Ajzen, 1991) recommends that interest is an important indicator of the extent to which an individual carries out a certain behavior and also tells how many attempts an individual makes to carry out a certain behavior. Furthermore, interest reflects a person's decision about whether or not to carry out a behavior, which can thus be formed through a process of mental consideration, conflict, and commitment that will require significant time (Davis, 1989).

Purchase intention must still be explored (Lim et al., 2016). Although interest has been determined to be one of the prominent predictors of online shopping behavior (Carlos Roca et al., 2009; Laohapensang, 2009), it must be acknowledged that asking to buy cannot be translated into purchasing action (S. Kim & Jones, 2009). On the other hand, there needs to be more interest in buying goods using the internet and shopping online (He et al., 2008). TAM explains that Perceived usefulness and perceived ease of use can determine a person's purchase interest (Hu et al., 2009).

PU can be defined as the extent to which consumers feel that online shopping activities can add value and efficacy to them when shopping online (Lai & Wang, 2012; Lim et al., 2016). Furthermore, PU is "the extent to which someone believes that using a particular system will improve their work" (Amirtha & Sivakumar, 2018; Xiaoyang, 2021). The PU of e-commerce websites usually depends on the effectiveness of technological features such as the services provided by e-commerce to consumers and technological advances in searching for goods (H. Kim & Song, 2010; Pink & Djohan, 2021; Wilson, 2019). The ease of comparing one virtual store with another virtual store can be another factor supporting PU (Barkhi & Wallace, 2007).

Electronic commerce websites provide useful application software and services and can facilitate purchasing interest in purchasing products or services (Moslehpour et al., 2018).

However, it is not as convenient when compared with traditional markets (for example, direct comparison between different products that require taste, smell, or sensing). Rehman et al. (2019) in their research confirmed that PU has a significant effect on online purchasing intention in Pakistan. Furthermore, (Lim et al., 2016), in their research, also confirmed that PU can influence online purchasing interest among consumers in Generation Y. In this research, PU is generally defined as consumer perceptions of internet technology, which can increase consumer interest in buying something using the internet.

PEoU is an indicator used in TAM and refers to an individual's opinion about a new technology that will be used without effort (Davis, 1989). PEoU also refers to the extent to which users perceive certain technologies, accessing websites, internet functions, and web-interfaces as easy to use (Davis, 1989). Perceived ease of use refers to the level of consumer trust in a website that will be used to purchase goods that can help find much information with little effort expended by consumers (Chiu et al., 2005). So, it can be explained that PEoU is where internet users (consumers) feel that they do not spend too much effort using online shopping websites.

The construct of PEoU has been used in various contexts, including electronic mail, electronic commerce, and interest in using internet applications (Featherman & Pavlou, 2003; King & He, 2006; Moslehpour et al., 2018). Consumers tend to look for an easier process for buying goods online, such as products that are easily available, websites that are easy to access, comparing products and prices according to their wishes, purchasing online, which is easy then they have an interest in buying online (Broekhuizen & Huizingh, 2020; Rehman et al., 2019). Chen (2012) previous research found that PEoU can positively influence consumers' interest in making purchasing activities through the same virtual store. Rehman et al. (2019), in research testing the relationship between PEoU and purchase intention among consumers from Pakistan where only respondents with higher education could fill out the questionnaire, found that the relationship had a significant effect. According to Moslehpour et al. (2018), it was found that PEoU can influence online consumer purchasing intentions in Taiwan.

RESEARCH METHOD

Adequate technical analysis to obtain research objectivity and try to solve problems normatively and application is needed in this research. This research uses a quantitative exploration strategy through the use of surveys. A quantitative approach is used to test the variables PU, PEoU, and online purchasing interest. The statistical analysis results will help draw general conclusions from the entire research model.

The theoretical framework used in this research consists of three variables: PU and PEoU as independent variables and online purchasing interest as the dependent variable. The measurements used for the PU variable are seven indicators. Furthermore, there are four indicators for measuring the PEoU variable. Finally, there are three indicators for measuring online purchasing interest. The indicator items were elaborated from previous research with modifications to the PU and PEoU language referring to Davis (1989) and online purchasing interest referring to (Harjadi & Manalu, 2022; Thananuraksakul, 2007).

The population of this research is internet users from the West Java region, Indonesia. The main characteristics used in filling out the questionnaire are internet users who have accessed electronic trading websites or those who have installed the application. Determination of the minimum sample is used concerning (Levy & Lemeshow, 2013). The sampling technique used in this research is purposive sampling. Next, data was collected through a structured questionnaire using purposive sampling. This study used a 7-point Likert scale (1 - strongly disagree to 7 - strongly agree). Overall, 190 questionnaires were distributed, and 178 (93.7%) questionnaires could be used for statistical testing. Based on the data in Table 1, the characteristics of the respondents show that in terms of age, the highest frequency is in the range of 25-32 years. The gender obtained

was mostly female, 73%. The characteristics of respondents based on education were mostly bachelor's degrees, with a percentage of 63%. Lastly, the respondent's characteristic of visits to electronic commerce sites/applications is that the maximum is less than one week, with a percentage of 78%.

Table 1. Respondent Demography

Category	Category	Frequency	%
Age	18-25 Years	60	33.7
	25-32 Years	95	53.3
	32-39 Years	21	11.8
	More than 39 years	2	0.1
Gender	Male	48	27
	Female	130	73
Education	Junior High School	3	0.16
	Senior High School	45	25.2
	Undergraduate	112	63
	Postgraduate	18	10
Frequency of visiting e-commerce	< 1 Weak	139	78
	< 1 Weak	35	19.7
	< 6 Month	2	0.1
	< 1 Years	1	0.05
	>1 Years	1	0.05

Source: Processing data, 2023

RESULTS AND DISCUSSIONS

Validity and Reliability Test

Table 2. Validity, Cronbach Alpha, Mean, and SD

Variables	Indicator	Validity	Cronbach Alpha	Mean	Std. deviation
Perceived usefulness	Pu1	0.735	0.859	4.13	1.56
	Pu2	0.761			
	Pu3	0.777			
	Pu4	0.730			
	Pu5	0.727			
	Pu6	0.752			
	Pu7	0.673			
Perceived ease of use	Peou1	0.814	0.814	4.45	1.57
	Peou2	0.845			
	Peou3	0.819			
	Peou4	0.723			
Online purchase intention	Mpo1	0.838	0.741	5	1.40
	Mpo2	0.794			
	Mpo3	0.801			

Source: Processing data, 2023

Based on validity and reliability tests, it was found that the indicators of perceived usefulness, perceived ease of use and purchase interest were valid ($> r$ table) and reliable (> 0.70). So, testing can continue with hypothesis testing.

Regression Analysis

Table 3. Hypothesis Testing

Number of obs	178
F (2,175)	664.08
Prob > F	0.000
R-squared	0.8836
Adj R-squared	0.8822

Mpo	Coefficient	Std. Err.	t	p> t	Beta
Pu	.5520813	.0730527	7.56	0.000	.579881
Peou	.3406636	.0700008	4.87	0.000	.373418
Constant	1.110806	.1122888	9.89	0.000	

Source: Processing data, 2023

The model specifications used in this research are based on the main hypothesis and are presented as follows:

Online purchase intention (Mpo) = f (PU, PEoU) u_i

$Mpo = \beta + \beta_1 PU + \beta_2 PEoU + u_i$

Based on the research hypothesis, the overall expected beta coefficient is expected to be positive $\beta > 0$, which means that overall the independent variable has a positive impact on purchase intention online.

Two hypotheses will be tested in this research. Hypothesis one tests the influence of PU on online purchasing intention. The second hypothesis tests the influence of PEoU on online purchasing intention. Table 3 shows the results of multiple regression.

The coefficient of determination R-squared is 0.8836 (88.36%); these results indicate that variations in the PU and PEoU models can influence online purchasing interest and the remaining 0.2164 (21.64%) is influenced by other factors not examined in this research. Based on (Hair et al., 2011), there are no general rules regarding the value of R-squared and decisions regarding whether to fulfill the R-squared value are considered depending on the specific research discipline.

Based on the regression results, the regression model is as follows:

$Mpo = 1.11 + 0.552PU + 0.34PEoU + u_i$

The regression results of each coefficient will be interpreted for each independent variable compared to the previous expectation that all beta coefficients are > 0 . Perceived usefulness: The results of the regression coefficient show a positive relationship between PU and online purchasing intention $\beta_1 > 0$. Means that one increase in PU will result in a corresponding increase of 0.552 in online purchasing Intention. So, hypothesis one is accepted.

Perceived Ease of Use: The results of the regression coefficient show a positive relationship between PEoU and online purchasing interest $\beta_2 > 0$. This means that one increase in PEoU will result in a corresponding increase of 0.373 in online purchasing interest. So, the second hypothesis is accepted.

This research confirms a positive influence between PU and purchase intention online. This positive influence aligns with previous research (Cho & Sagynov, 2015). These results indicate that electronic commerce consumers, especially in West Java, choose uses that will increase their interest in shopping online. Furthermore, the results of this research also confirm that perceived ease of use can increase the online shopping interest of electronic commerce consumers in West Java. The positive and significant influence of PEoU on online purchasing intention aligns with previous research (Rehman et al., 2019).

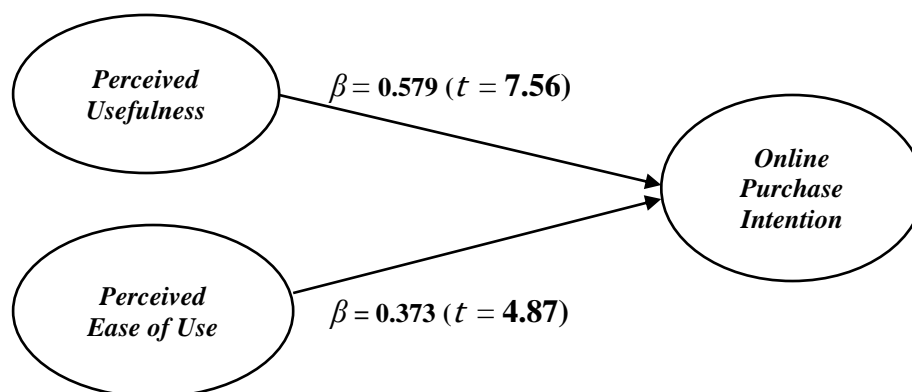


Figure 1. Hypothesis Testing

CONCLUSION

This research examines the relationship between PU and PEoU on online purchasing intentions of electronic commerce consumers in West Java. Researchers have the view that the higher the frequency of consumers shopping online (e-commerce), the more important the consideration of perceived benefits and perceived ease of operation will be in influencing consumer interest.

The findings in this research indicate that the average active electronic commerce consumer user frequently accesses the web or application within a week. Even though many consumers have switched to electronic learning activities, traditional shopping still exists (Harjadi & Manalu, 2022). Overall, active consumers are of productive age under 32 years. Thus, it indicates that there is a shift in trends with each generation.

This research is not free from several limitations. First, this research only uses two variables (PU, PEoU) taken from TAM theory. Second, there were twelve questionnaires that could not be continued to the statistical testing stage. Third, most of the respondents in the study were under 32 years of age.

There are several suggestions from this research. First, there needs to be further development regarding the theory used by combining theories related to consumer behavior, such as the Theory Planned Behavior (TPB). Second, there is a more in-depth study regarding the determination of testing for respondents over the age of 32 who are not represented. Third, it is hoped that we can add and use other models and analytical tools that have not been used in this research.

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