

The Effect of E-Commerce Knowledge, Risk, and Technology Trust and Intention to Buy Online

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This study aims to find out and analyze: 1) e-commerce knowledge, risk and trust towards technology, 2) technology perceptions of purchase intentions, and 3) trust in purchase intentions. The data used is primary data obtained from 134 respondents with incidental sampling method. Data were analysed using Structural Equation Model (SEM). Results from testing instruments concluded that all variables are valid and reliable as a data collection tool. From the results of data analysis it was found that: 1) e-commerce knowledge does not affect trust, 2) risk perception has a significant effect on trust, 3) technology perception does not affect trust, 4) perception of influential technology significantly influence purchase intention, and 5) trust has a significant effect against purchase intention.

Key words: *e-commerce knowledge, risk, technology trust, intention to buy.*

Introduction

In recent years advances in technology are increasingly sophisticated and growing compared with several years ago. These technological developments can be felt in various fields especially in cyberspace. This has led to changes in lifestyle of today's society. For example, technological advances have resulted in an increasingly high demand for gadgets and an increased tendency to use internet media. Internet media, besides being used to communicate, can also be used for business activities. In running their business, companies often use internet media to find data, information, and conduct promotions. In addition, internet is also used for E-commerce, which is the process of buying and selling products and services online.

E-commerce brings many changes to business activities in the real world. This development was marketed by many companies that initially operated in the real world, then developed into cyberspace.

One of the fastest growing e-commerce activities in Indonesia is the emergence of online buying and selling sites. Online buying and selling sites originally appeared in the 2000s, but with the continued growth of buying and selling sites, this form of e-commerce has become increasingly crowded. There are many benefits of online buying and selling sites, including entrepreneurs who are able to reach a wider target market with cheaper promotional costs than using offline methods. While there are also many conveniences of online buying and selling transactions, there are some things that are still difficult for the public to accept. One such difficulty is the establishment of consumer trust in the buy and sell sites. Trust is a mental or verbal statement that reflects a person's specific knowledge and judgment about ideas or things (Scifman and Kanuk, 2010).

According to Mukherjee and Nath (in Fenny 2008) trust can be measured through perceived technology, reputation and risk. Given this, in this study trust is used to measure consumer confidence in using E-commerce, perceived knowledge, technology and perceived risks. The importance of trust in store transactions on the internet is felt by consumers, so it is not uncommon for this to be a very important factor for consumers when making decision about buying a product in a particular place. Therefore, there is a need for mutual trust between sellers and buyers (Utomo et al., 2011). According to Gefen and Straub (in Candra, 2013), high consumer trust in online stores will increase the likelihood of consumers' intention to buy.

Purchase intention is the stage before the buying decision is actually implemented. Purchase intention is the tendency of consumers to purchase a brand or take action related to the purchase.

Based on the background above, the author has conducted this study entitled The Effect of E-Commerce Knowledge, Risk, and Technology on Trust and Intention to Buy Online.

Methodology

This research is explanatory research, namely a study of the relationship between research variables by testing hypotheses that have been made previously (Ghozali, 2005: 2). In this study the research method used was a type of survey sample study with a quantitative approach.

The population in this study people who have shopped through online buying and selling sites. Sampling methods used in this study was a non-probability sampling technique by incidental sampling, which is a determination technique such that the sample is based on chance. That is, anyone who can be found that has been shopping through online buying and selling sites is a suitable data source. The number of samples sets in this study was 134 respondents. The data analysis technique used to discuss the problems in this study is Structural Equational Model (SEM). Structural equation models or SEM are statistical techniques that allow simultaneous testing of a relatively complex set of relationships.

Results

a. Descriptive Data Test Result

The purpose of descriptive data analysis is to determine the positives or negatives of E-commerce knowledge data, risk perceptions, technological perceptions, trust and intention to buy online at online buying and selling sites which are considered from the mean, median and mode.

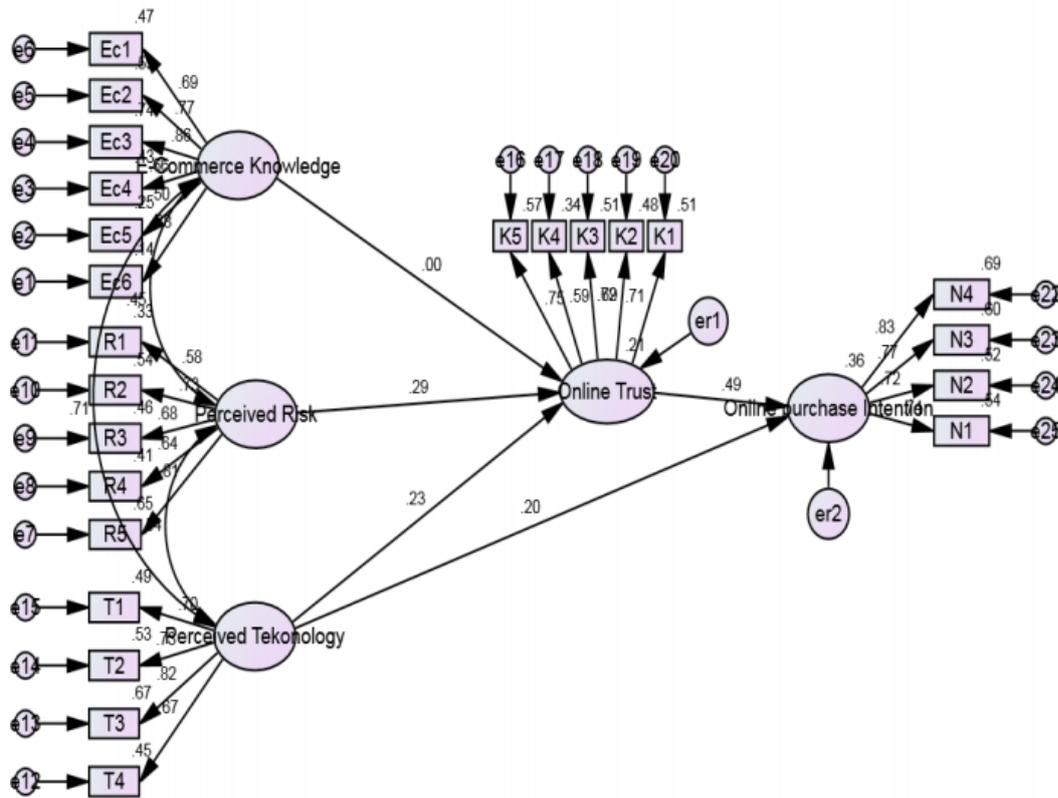
Table 1: Descriptive Data of Research

No	Variable	Analysis Results				
		Min	Max	Mean	Median	Mode
1	E-commerce knowledge	18	30	25,47	26	24
2	Perception of Risk	7	25	16,73	16	15
3	Perception of Technology	12	20	16,98	16	16
4	Trust	12	25	18,87	18	18
5	Intention to Buy	10	20	16,90	16	15

Source: Analysis result, 2018

Table 1 shows that E-commerce data is good because the median value is smaller than the mean is greater than the mode (Kuncoro, 2013), which is equal to 25 <25.47> 25. The perception of risk is good for the median value is smaller than the mean is greater than the mode that is equal to 16 <16.73> 15. Data perception of technology is good because the median value is smaller than the mean is greater than the mode that is equal to 16 <16.98> 16. Data of confidence in online buying and selling sites are good for small grama median value of the mean is greater than the mode at 18 <18.87> 18. Data on online purchase intention is said to be good because the median value is greater than the mean smaller than the mode that is equal to 16 <16.90> 15.

Figure 1. Structural Model (Analysis result, 2018)



b. Evaluation Test for Goodness of Fit

Outlier detection is done to see univariate outliers and multivariate outliers. The multivariate outlier, is determined by looking at the value of the distance. The problem of multivariate outliers can occur if the value of the even-distance value is greater than the chi-square value (Ferdinand, 2000). Based on these provisions, in this study the chi-square value was obtained at 600,235 and the greatest value at the mobobob distance was 99,647. Therefore, it can be concluded that in this study there were no multivariate outlier problems. In the absence of multivariate outliers, the data is feasible to use. The structural model is the relationship between latent variables (variables that cannot be measured directly and requires several indicators to measure them. Independent and dependent) (Bollen, 1989). Results from the structural test model are as shown in Figure 1.

c. Goodness of Fit Model Testing Results

Analysis of the results of data processing at the full stage of the SEM model is carried out by conducting suitability tests and statistical tests (Saudi et al., 2019). The Goodness of fit model test results are explained as follows:

Table 2: The Goodness of Fit Model Test Results

Index	Critical Value	Result	Description
Chi Square	Almost zero	600.230	Poor
Probability	$\geq 0,05$	0.00	Poor
RMSEA	$\leq 0,08$	0.100	Moderate
GFI	$\geq 0,90$	0.861	Moderate
AGFI	$\geq 0,90$	0.814	Moderate
CMIN/DF	$\geq 2,00$	2.460	Good
TLI	$\geq 0,95$	0.760	Moderate
CFI	$\geq 0,94$	0.788	Moderate

Source: Analysis, 2018

These results indicate that the model used is acceptable. According to Hair et al., (1998), in Haryono (2012), the model was said to be feasible if at least one of the results of the model feasibility test was fulfilled, as based on several model feasibility tests.

The chi square value in this study was 600,230. Joreskog and Sobron, in Haryono (2012), stated that chi square cannot be the only measure of the overall suitability of the model, as chi square is very sensitive to sample size. When the sample size increases, so does Chi Square (Sinaga et al., 2019).

Chi Square is also closely related to the degree of freedom value. If the degree of freedom value is greater, it will affect the value of Chi Square. The degree of freedom in this research is quite large (244), which affects the Chi Square value. From the results of the model output in Table 2 for the model suitability test criteria, several criteria are at moderate values. Moderate value is the condition of the suitability of the measurement model that is not absolute fit but can still be utilised in further analysis because it is close to the goodness fit criteria (Seguro, 2008, in Fitriyana et al., 2013).

d. Hypothesis Test Analysis

The relationship between constructs in the hypothesis are indicated by regression weight values. This analyse can be seen in the following table:

Table 3: Regression Weight

			Estimate	S.E.	C.R.	P
Trust	←	E-commerce	.002	.254	.006	.995
Trust	←	Risk	.254	.103	2.470	.014
Trust	←	Technology	.299	.211	1.418	.156
Intention	←	Technology	.297	.141	2.111	.035
Intention	←	Trust	.562	.120	4.690	***

Source: Analysis result, 2018

The effect of E-commerce knowledge on trust, based on the results of this study, shows that the influence of E-commerce knowledge on Trust was a CR value of 0.006 ($p = 0.995 > 0.05$), thus H_0 is accepted, meaning that there is no significant influence between E-commerce Knowledge and Online Trust. H_1 hypothesis, there is no influence between E-commerce Knowledge and Trust.

The effect of risk perception on trust, based on the results of the study revealed that the influence between risk and trust was a CR value of 2.470 ($p = 0.014 < 0.05$), thus H_0 is rejected and H_a is accepted, meaning that there is an influence between perceived risk and Online trust. Hypothesis H_2 , there is an influence between the perception of risk to trust.

Influence of technological perception of trust, based on the survey results revealed that the influence of technology on persuasion lies was a CR value of 1,418 ($p = 0.156 > 0.05$), thus H_0 is accepted, meaning that there is no influence between the perception of technology with confidence (Online Trust). Hypothesis H_3 , there is no influence between technological perceptions of trust.

The influence of technological perceptions on online purchase intentions, based on the results of the study, revealed that the influence of technology on online purchase intention was a CR value of 2.111 ($p = 0.035 < 0.05$), thus H_0 was rejected and H_a was accepted, meaning that there was an influence between the perception of technology and the intention to buy online. Hypothesis H_4 , there is influence between perceptions of technology on online purchase intention.

Effect of trust in the online purchase intention, based on the survey results revealed that the influence of trust in the online purchase intentions was a CR value of 4,690 ($p = 0.00 < 0.05$), thus H_0 was rejected and H_a accepted, meaning that there is influence between the trust with

online purchase intention. Hypothesis H5, there is an influence between trust in buying intentions online.

Discussion

a. E-commerce Knowledge does not affect Trust

The results of the study show that E-commerce knowledge has no influence on the trust of online buying and selling site users. Knowledge possessed by online buying and selling site users includes an understanding of the transaction process or flow. This is because respondents consider that knowledge of E-commerce is only limited to respondents knowing how to use or interact with online platforms but not all respondents are brave enough to try to do online trading.

This finding is supported by the results of research conducted by Mc Cole and Palmer (2002), and Gefen and Starub (2003), where knowledge does not have a positive influence on trust in internet use. In addition, this study supports the research conducted by Warkentin et al., (2002), where knowledge of online transactions does not create user trust of online stores.

b. Perceived Risk affect Online Trust

The results of the study show that risk perception affects consumer trust, where the higher the risk of making an online purchase, the more consumers will not trust the online buying and selling site.

Some of the risks involved in making online purchases such as the risk of payment methods, the risk of misuse of personal data information, and also the risk of non-conformity of goods received with goods advertised by the buying and selling site. This finding is supported by the results of a study conducted by Masaound (2013). It is known that financial risk, product risk, shipping risk, and information security have a significant influence on consumer confidence. In addition, according to Polatoglu and Ekin (2001), the risk related to online sites is considered to be one of the main factors that influence consumer adoption and satisfaction of internet banking service customers.

c. Perceived Technology does not affect Online Trust

The results of this study show that the perception of technology does not affect consumer confidence. This can be because respondents believe in visiting boutiques or mall stores rather than making purchases online, paying through ATMs or certain banks and waiting until the items arrive which may be considered impractical. This research is supported by the results of research from Wijaya (2012), which showed that

convenience does not affect online trust. Based on research conducted by Ahmad (2014), perceived ease does not have a significant impact on the confidence to use the internet banking.

d. Perceived Technology affect Online Purchase Intention

The results showed that the perception of technology affected online purchase intentions. This is supported by a previous study conducted by Kwek Choon Ling (2011), which showed that the convenience and benefits of online buying and selling sites had an effect on E-commerce purchase intentions. In addition, according to a study by Gefen & Straub (2013), the degree to which someone believes that they can use a system easily improves their work performance.

e. Online Trust affect Online Purchase Intention

The results of this study showed that confidence affects online purchase intention. Previous research found that trust as an important factor directly imposing a large influence on purchase intention (Rong Li et al., 2007). Lack of trust is one of the most frequently cited reasons why consumers do not want to make transactions online (Lee and Turban, 2011).

In contrast to traditional purchases, in online purchases, the decision-making process on purchases is very much influenced by trust in the site. An important factor that influences the intention of online purchases is the existence of consumer trust in the seller and consumer confidence in the product information printed on the site.

To make it easier for consumers to conduct information searches, usually online buying and selling sites install information about sellers including the seller's name, telephone number, and location. While information about the product consists of price and product description. This certainly increases consumer confidence and intention to make a purchase.

Conclusion

Based on the previous description, the following conclusions can be drawn: E-commerce Knowledge Variables do not affect Online Trust, so the first hypothesis in this research is not proven to be true; The Perceived Risk variable gives a significant influence on online trust, so the second hypothesis in this study is proven to be true; Variable Perceived Technology does not affect Online Trust, so the third hypothesis in this study is not proven to be true; The Perceived Technology variable gives a significant influence on online purchase intention, so the fourth hypothesis in this research is proven to be true; Variable Online Trust has a



significant influence on online purchase intention, so the fifth hypothesis in this study is proven to be true.

Future researchers should test customer satisfaction to find out how consumers behave after making purchases through online stores. Future researchers are expected to be able to add research variables that influence the intention of online purchases by involving other variables such as price, pre-purchase experience, and purchase orientation.

Online businesses can apply these findings to increase the confidence of online shoppers by providing comfort, satisfaction and responsibility in an online transaction so as to increase the participation of online shopping. Online businesses are expected to educate buyers or prospective buyers with information on transaction processes and transaction security so as to foster purchase intention and participation in online shopping.

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