

THE EFFECT OF PERCEIVED EASE OF USE, PERCEIVED OF USEFULNESS, PERCEIVED RISK AND TRUST TOWARDS BEHAVIOR INTENTION IN TRANSACTION BY INTERNET

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ABSTRACT

This study aims to analyze the factors that influence consumer intentions to do transaction in e-commerce, which includes factors of easy to use, effectiveness of risk and trust. It also aims to analyze the potential development of new technology through consumer behavioral intentions to use new information technology by providing information about market demand for the development of information technology to businesses to further strengthen the company's sales strategy. The research method used multiple regressions to find out about the influence of independent variables on the dependent variable by using hypotheses. The number of samples required for this research is 100 respondents. The result showed that the four variables namely Perceived Ease in Use, Perceived Usefulness, Perceived in Risk, and Trust have significant effect on consumer interest in transacting over the internet. Also Perceived in Risk is a variable that has the most dominant influence on consumer intentions to transact over the Internet.

Keywords: *Behavior intention, perceived ease of use, perceived usefulness, perceived risk, trust.*

INTRODUCTION

Internet transaction facility is rather new for public, thus it is necessary to know about factors that can influence consumers in doing intensive shopping transactions on Internet-based trade media. The use of integrated shopping transaction facilities to banks, are expected to provide the maximum added value for consumers, ultimately providing a competitive advantage for the company. A study conducted by Forrester Research, Inc. in 2005 stated that internet sales reached 172.4 million U.S. dollar in 2005 which represented an increase of 22% (31.1 million U.S. dollars) from 2004. When viewed from 2002, the value of internet sales in 2005 a growth of 96.6% or a total of 96.7 Million U.S. Dollars (<http://www.cashcowcart.com>).

Internet slowly began to shift the culture of the purchase (reservation) of plane tickets from the conventional way to more modern or what is often called online booking. Nowadays, ticket booking can be done through a computer connected to the Internet. In Indonesia, the service has been introduced by the National Carrier Garuda Indonesia, Merpati Nusantara airlines and AirAsia. This means the airlines can deal directly with consumers which of course will provide a significant economic impact. According to William Liu, President and CEO of Abacus International, the World Tourism Organization predicts by 2010 as many as 195 million travelers will flood the tourist destination of Asia-Pacific. Predicted by 2020 that number will increase to reach 397 million people, ie a quarter of total international tourism (<http://www.angkasa-online.com/>). Davis developed the Technology Acceptance Model (1986) to see the impact of perceived ease of use variables, perceived usefulness to information technology behavior intention variable (intention to use). Transactions risk and trust in internet banking transactions is of paramount consideration in the virtual transaction because of the distance, the ability of technology in facilitating transactions, service that does not require meeting face-to-face with sales or customer service officer and a lot of points to consider by consumers in e-commerce transactions. Risk and trust variable was added to see how the behavior of consumers in using e-commerce.

This study aims to analyze the factors that influence consumer intentions to transact in e-commerce, which includes perceived ease of use factor, perceived usefulness, effectiveness, perceived risk and trust. Based on the background of the aforementioned problems, the formulation of this research are as follows: Does the perception of ease of use, perceptions of effectiveness and risks of using Internet transactions affect the intention to use the internet transaction?, and how the influence of confidence in using the Internet transaction against consumers' intentions to use the internet transaction?

Based on the formulation of the above problems, the objectives to be achieved in this study are as follows: to determine the ease of perception, perception of effectiveness and risks of using Internet transactions affect the intention to use the Internet transaction, and identify the influence of confidence in using the Internet transaction against consumer intention to use the internet transaction. The benefit of this research is expected to provide practical utility for organizing e-commerce and may provide benefits for research in developing consumer behavior in shopping via the Internet.

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

E-Commerce. E-commerce is all informational and financial transactions between the organization and the external stakeholders. Both definitions indicate that the concept of e-business is more extensive than ecommerce. In e-commerce there are two sides of the inter-related, sell-side e-commerce and buy-side e-commerce. Sell-side e-commerce is related transactions by selling products to consumers while the buy-side e-commerce transactions are business to business (B2B) related to the procurement of resources required by the organization from its suppliers.

Internet Marketing. The Internet is a global information system-based computers (computer based global information system). According to Microsoft Encarta Reference Library (2005), Voice Over Internet Protocol (VOIP) is a method to call via the Internet by sending data in a separate package, it works almost like an email.

The first step to doing internet marketing is a business owner must have a system that makes the website is able to interact with visitors, its affiliates and business owners. The next step after automate website optimization website ranking is to be in a top list of search engines (top list of search engines). Attempts to position the website in top rankings of a search engine is often referred to as Search Engine Optimization (SEO). One measure of the maximum internet marketing efforts is increased sales. Internet marketing strategy is most often done by the owners of the product is affiliate marketing.

Internet marketing is the use of the Internet media to achieve marketing goals and support the concept of modern marketing. In practice, associated with the use of Internet marketing websites, online campaigns on search engines, website banner ads, direct mail, links and all activities to acquire and build relationships with consumers.

Consumer Behavior. The increasing business competition encourages firms to be more consumer-oriented. To support these efforts needed knowledge about consumer behavior. One of the underlying theory of consumer behavior is the Theory of Reasoned Action (TRA) was first proposed by Ajzen in 1980. The theory was developed using the basic assumption that humans behave in a way that conscious and consider all available information.

Theory of Planned Behavior (TPB), which is a further development of the TRA. Ajzen (1988) added the construct that does not exist in the TRA, namely perceived behavioral control (perceived behavioral control). Construct was added in an effort to understand the limitations of the individual in order to perform certain behaviors.

Theoretic Model of the Theory of Planned Behavior (Planned Behavior) contains a variety of variables: background (background factors), Confidence Behavioral (behavioral belief), Normative Beliefs (normative beliefs, subjective norms (subjective Norm), The belief that a behavior can be implemented (control beliefs), and perception of ability to control (Perceived Behavioral Control).

Factors that influence consumer decisions has four sections, can be briefly described as follows:

1. Consumer choice on the brand of a product is influenced by the needs, motivations and perceptions of consumers.

2. Individual aspects of the notion of consumers consists of variables (including needs, attitudes and perceptions of consumers) and variable characteristics (consisting of lifestyles, consumer personality and demography).
3. Environmental factors also affect consumer behavior,

The model used in the study by Widyarini and Putro (2008) is a modified TAM model with basic variables perceived easy of use, perceived usefulness and behavioral intention, attitude toward the behavior variable is not used. Modifications were also made by TAM model Venkantesh (2002) by adding the variable of trust with the title: Trust Enhanced Technology Acceptance Model (Tomi), modification of the relationship between variables of TAM and trust. Modification of other TAM Trust and Risk in the Technology Acceptance Model (TRITAM) that uses variable variables of trust and risk with TAM (Lui and Jamieson 2003).

Pavlou (2001) using a factor of trust (trust) and risk (risk) combined with two variables is the Technology Acceptance Model. The effect of consumer perception on the usability of e-commerce and consumer perception on the usability of e-commerce is seen directly against the intention to use internet banking without going through the variable attitude toward using (attitudes to use) the Internet banking.

Perceived Usefulness. Perceptions of power in order to define “the prospective user’s subjective probability That using a specific application system will of increase of his or her job performance Within an organizational context” (Davis 1989). According to Teo, et al., (1999) (Pavlou 2001), the actual factors that influence people to use technology is extrinsic motivation and intrinsic motivation. Extrinsic motivation is motivation that result from the perception that technology is an instrument to increase the value of different outcomes obtained from specific activities. To measure the perceived usefulness variable according Widyarini and Putro (2008) can be measured using five indicators of size, namely: (1) Improve productivity, (2) More rapid in the transaction, (3) Useful for the person, (4) Effective in the transaction; and (5) Improve the effectiveness of the activity.

Perceived Ease of Use. As disclosed above, according to Pavlou (2001) perceived ease of use (Perceived Ease of Use) is an intrinsic motivation in using technology to transact over the Internet. To measure the perceived usefulness variable according Widyarini and Putro (2008) can be measured using six indicators of size, namely: (1) When operational, (2) Ease of operation, (3) Ease of remembering operation; (4) As the user desires, (5) Flexible in operation, and (6) Easy to skilled.

Perceived Risk. Risk is defined as a subjective estimate of the consumer to suffer loss in receiving the desired results (Pavlou, 2001). According to Dowling and Staelin in Pavlou (2001), if the risk was increased from just information to the decision of purchasing the product (the transaction), the risk associated with trust. To measure the perceived risk variables according Widyarini and Putro (2008) can be measured using six indicators of size, namely: (1) Risk of use, (2) Security, (3) Meet the needs of, and potential benefit.

Trust. Trust is an important factor for consumers to decide to do the transaction online or not. According to Steward, et al. (2001) (Pavlou 2001) trust factor in e-commerce is a subjective estimate which consumers believe they can conduct online transactions are consistent with the expected.

To measure the perceived usefulness variable according Widyarini and Putro (2008) can be measured using six indicators of size, namely: (1) Guarantee Internet technologies, (2) Believing the security, and (3) According to customer's desire.

Research conducted by Widyarini and Putro (2008) concerning the relationship factors of technology acceptance, trust, and risk of intention to use internet banking customers, the result that the ease of using the internet on the intention to use internet banking was not significant, this occurs because bank customers know about the ease of using the Internet because a lot of things that people consider the use of internet banking, including the risks and their confidence to use internet banking and also the perception on the usability of the application of internet banking.

The influence of perceptions Internet transaction against the usability of consumer intention to use the internet transaction;

Research conducted by Widyarini and Putro (2008) proved that there is influence between the perception of the usability of Internet banking to intention to bank customers to use internet banking is a significant positive, this proves that the Internet users take a rational decision to use internet banking, and usability of internet banking application to be considered significant.

Perceptions of risk in using the Internet transaction affects intention to use the internet transaction.

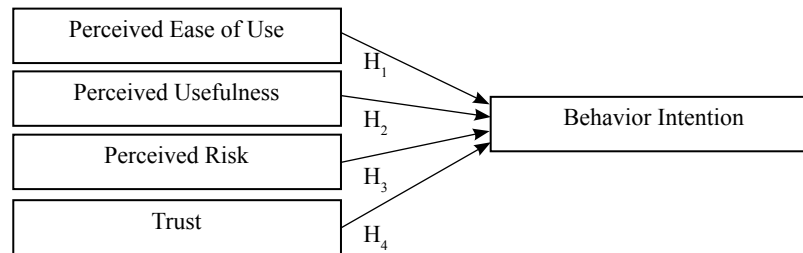
Research conducted by Widyarini and Putro (2008) proved that there is a significant influence on the risk of using internet banking intention to use internet banking proved to be correct. Continuous efforts by the banks to minimize the risk of a significant effect on bank customers' intention to use internet banking.

The influence of confidence in using the Internet transaction against consumer intention to use the internet transaction;

Research conducted by Widyarini and Putro (2008) proved that there is significant influence between confidence in using internet banking to customers of the bank intention to use internet banking proved to be correct. According to Steward, et al., (2001) (Pavlou 2001) trust factor in e-commerce is a subjective estimate which consumers believe they can conduct online transactions are consistent with the expected.

Based on the above theoretical background, the conceptual framework in this study are as follows:

Figure 1. Conceptual Framework



Based on the above concepts, the hypothesis to be tested in this study are:

- H_1 : *Consumer perceptions of ease of use of the internet will give effect to the interest to use the internet.*
- H_2 : *Consumer perception of the usefulness of using the internet will give effect to the interest in using the Internet.*
- H_3 : *Consumer perception of risk in using the Internet will give effect to the interest to use the internet.*
- H_4 : *Consumer confidence in using the Internet will give effect to the interest to use the internet.*

METHODS

This research refers to research that has been done before by Widyarini and Putro (2008) The variables used are as follows:

1. The dependent variable is the behavior intention in this regard is the intention of the customer;
2. The independent variable consisted of four variables: (1) Perceived ease of use, (2) Perceived usefulness, (3) Perceived usefulness, (4) Perceived risk, and (5) Trust.

On the basis of the information above, then by the same variables, this study conducted a survey on Internet users who conduct e-commerce transactions on the Internet.

Consumer intention to transact on the internet media as measured using 3 indicators. Perceptions of ease of using the internet (Perceived Ease of Use) which make use of six indicators are measured. Perceptions of internet usability (Perceived Usefulness) were measured using 5 indicators. Perception of risk (Perceived Risk) is measured using 4 indicators. Trust in the Internet transaction (Trust) was measured using 3 indicators. Measurement of this indicator using a Likert scale with 5 levels of scale 1: Strongly Disagree to 5: Strongly Agree.

The sample in this study using sampling no probability with purposive sampling technique (Hair, 1998). Criteria of respondents who became a reference in this research is currently conducted surveys of patients undergoing treatment at Friendship Hospital a minimum of two nights. The number of samples required for this study is 10 X 5 variables, namely by 100 respondents.

Validity testing performed to ensure that the proper instrument to be used be used as data collection tool. Validity testing is done by using the Product Moment correlation analysis. The decision of an

otherwise valid instrument with the following conditions:

If P-Value < 0.05 , the indicator is said to be valid.

If P-Value > 0.05 , the indicator is said to be invalid.

The value of significance level (p value) below 0.1 and 0.05.

Based on the output results have shown that all the indicators or P-Value Sig. (2-tailed) under 0.05, so that all indicators were considered valid and worthy of research instruments. Reliability is an index which indicates the extent to which a measure can be trusted or reliable. Reliability testing is used to determine the internal consistency among the items in the statement of a research instrument. Reliability test of each variable using Chronbach's coefficient alpha. Decision making chronbach alpha coefficient is: Cronbach's alpha > 0.60 , the Cronbach's coefficient alpha can be accepted (Reliable). Cronbach's alpha < 0.60 , the Cronbach's coefficient alpha is unacceptable (poor acceptable) (not reliable).

Based on the output results have shown that all indicators Chronbach's coefficient alpha above 0.6, so that all indicators are otherwise reliable and worthy of research instruments. Methods of data analysis in this study were multiple regression (regression analysis)

RESULTS AND DISCUSSION

The influence of perceived ease of using the internet transaction (Perceived Ease of Use) on consumer intentions to use the internet transaction (Behavior Intention).

Based on the results of statistical tests in Table 1. Provided the correlation coefficient between these two variables is 0.715 as presented below. The coefficient of determination amounted to 0.511, meaning that the variable perceived ease of using the Internet transaction contributed to consumers' intention to use the internet transaction amounted to 51.1%, while the rest equal to 48.9% influenced by other variables, such as Perceived Usefulness, Perceived in Risk, and Trust, or other variables outside these three variables.

Table 1: Correlation and Determination Coefficients between Perceived Ease of Consumer Intentions

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.715 ^a	0.511	0.506	0.33534

a. Predictors: (Constant), Ease Use

The first hypothesis to test consumer perceptions of ease of use of the internet will give effect to the interest to use the internet. Based on Table 2 shows that the value of Sig. 0.000 and these values are under 0:05 or 5%, meaning that this study proves that the perceived ease significantly influence consumer intentions to use the internet transaction. Regression coefficient value of both variables are at 0.651, this value is quite large and close to one means that the perception of ease of using the Internet transactions strong influence on consumer intentions to use the internet transaction.

Table 2: Regression Coefficients Between Perceived Ease of Consumer Intention to Use the Internet Transaction.

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	1.615	0.234		6.912	0.000
Ease Use	0.651	0.064	0.715	10.125	0.000

a. Dependent Variable: Behavioral Intention

The influence of perception usability internet transaction (Perceived Usefulness) of consumer intention to use the internet transaction (Behavior Intention).

The test results are statistically in Table 3 shows the correlation coefficient between two variables that is equal to is 0.800. While the coefficient of determination amounted to 0.639, this value gives the meaning that the variable perception of the utility to contribute to consumers' intention to use the internet transaction amounted to 63.9%, while the rest equal to 36.1% influenced by other variables, such as the Perceived Ease of Use, Perceived Risk ins, and Trust, or other variables outside these three variables.

Table 3: Correlation and Determination Coefficients Between the Perception of the Usability of Consumer Intention to Use the Internet Transaction.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.800 ^a	0.639	0.636	0.28810

a. Predictors: (Constant), Usefulness

Hypothesis two tested the perception of consumers in the utility in using the internet will give effect to the interest to use the internet.

In table 4. shown that the value of Sig. 0.000 and these values are under 0:05 or 5%, meaning that this study proves that the perception of power in order to significantly influence consumer intentions to use the internet transaction. Regression coefficient value of both variables are at 0765, this value is quite large and close to one means that the perception of the utility (Perceived Usefulness) very strong influence on consumer intentions to use the internet transaction.

Table 4: Regression Coefficient Perceptions of the Effectiveness of Consumer Intention to Use the Internet Transaction.

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	0.786	0.242		3.245	0.002
Usefulness	0.765	0.058	0.800	13.178	0.000

a. Dependent Variable: Behavioral Intention

Perceptions of risk in using the internet transaction (in Perceived Risk) affect the intention to use the internet transaction (Behavior Intention)

In Table 5 shows that the correlation coefficient between these two variables is 0.815, while the value of the coefficient of determination amounted to 0.665. The value of determination coefficient gives the sense that the perception of risk contributes to consumer intention to use the internet transaction amounted to 66.5%, while the rest equal to 33.5% influenced by other variables, such as Perceived Usefulness, Perceived Ease in Use, and Trust, or other variables outside three variables:

Table 5: Correlation and Determination Coefficients Between Perceptions of Risks to Consumer Intention to Use the Internet Transaction

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.815 ^a	0.665	0.661	0.27778

a. Predictors: (Constant), Usefulness

Hypothesis Three: Consumer Perceptions of risk in using the Internet will give effect to the interest to use the internet. In Table 6 the value of Sig. 0.000 and these values are under 0:05 or 5%, meaning that this study proves that the perception of risk significantly influence consumer intentions to use the internet transaction. Regression coefficient value of both variables are at 0.948, this value is very large and close to one means that the perception of risk in using the Internet transactions are very strong influence on consumer intentions to use the internet transaction.

Table 6 Regression Coefficients Between Perceptions of Risks to Consumer Intention to Use the Internet Transaction.

Coefficients^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.388	0.257		1.506	0.135
Risk	0.948	0.068	0.815	13.936	0.000

a. Dependent Variable: Behavioral Intention

The influence of trust in transacting over the internet (Trust) on consumer intentions to use the internet transactions (Behavior Intention)

Based on the results of statistical tests in Table 7. obtain the correlation coefficient between two variables that is equal to 0.696. While the value of the coefficient of determination amounted to 0.485, this value gives the meaning that the consumer confidence variables contribute to the intentions of consumers to transact through the Internet amounted to 48.5%, while the rest equal to 51.5% influenced by other variables, such as Perceived Ease in Use, Perceived Usefulness, and Perceived in Risk, or other variables outside these three variables.

Table 7 Correlation and Determination Coefficients Between Trust in the Intention to Transact Through Internet Transactions.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.696 ^a	0.485	0.479	0.34435

a. Predictors: (Constant), Trust

Fourth Hypothesis test of consumer confidence to transact over the Internet affect the interest to transact over the Internet. On the basis of the table above shows that the value of Sig. 0.000 and these values are under 0:05 or 5%, meaning that this study proves that the confidence of consumers to transact through the Internet affect the willingness to transact over the Internet. The amount of regression coefficients in Table 9. amounted to 0861, this value is quite large and close to one means that consumer confidence is very strong influence on consumer intentions to transact through the internet (Behavior Intention).

Table 8: Regression Coefficients Between Consumer Trust on Consumer Intentions to Use the Internet Transaction

Model	Coefficients^a				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
1 (Constant)	0.666	0.344		1.932	0.056	
Trust	0.861	0.090	0.696	9.599	0.000	

a. Dependent Variable: Behavioral Intention

As presented in Table 10. below, demonstrated that the four independent variables correlate very strongly to consumer intention to use the internet transaction, this is indicated by the large value of correlation coefficient equal to 0915. While the value of coefficient of determination for 0838, where this value gives the meaning that the four independent variables accounted for 83.8% of consumer intentions to transact through the Internet, while the rest equal to 02.16% influenced by other variables outside of the four research variables, such as price, product completeness or variable other.

Table 9. Correlation and Determination Coefficients Between the Four Independent Variables on Consumer Intentions to Use the Internet Transaction

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.915 ^a	0.838	0.831	0.19616

a. Predictors: (Constant), Trust, Usefulness, Ease Use

CONCLUSION

The results showed that all four variables namely Perceived Ease in Use, Perceived Usefulness, Perceived in Risk, and Trust has a significant effect on consumer interest in transacting over the internet. Also Perceive in Risk is a variable that has the most dominant influence on consumer intentions to transact over the Internet. The results of this study has provided the managerial implications of managing a business that has a transaction through the internet. Risk factors are factors that most consumer consideration in the transaction over the Internet. Consumer risking risky to transact via the internet, because in the perception of transacting over the internet will be at risk of misuse of credit cards in payment of their input. So in anticipation of this, the organizers can do the same work to other media or other provider, such as banking which recognized reputation to guarantee the security of transactions on the Internet.

This research was limited to respondents in Jakarta area with a high degree of Bachelor education, so they have a high level of knowledge and very familiar in using the Internet media. For further research can be conducted a survey on the other variables that affect the interests of consumers to transact through the Internet. In addition, practical advice for providers or providers who conduct Internet-based transactions, the safety factor is the most important factor, where high security will minimize the risk of consumers in transacting over the internet.

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