

## THE IMPACTS OF TRUST, RISK AND TECHNOLOGY ACCEPTANCE MODELS ON CONSUMERS' DECISION WITH CONSUMERS' INTEREST AS INTERVENING VARIABLE

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### *Abstract*

*According to the record of WDR research, the growth of internet users in Indonesia reached 105% per year and becomes the highest growth among Asian countries after China (Boerhanoeddin, 2003 in Ainur, 2007). There are six reasons why internet technology becomes very popular. Those six reasons are; internet has wide connectivity and range; internet can reduce the cost of communication; the lower transaction cost can lower agency cost; internet is interactive; internet is flexible, internet is easy, and internet has ability to distribute knowledge fast. The aims of this research are to figure out the impacts of trust, risk and technology acceptance models, perceived case of use, perceived usefulness, perceived of credibility towards the consumers' interest in using internet banking; the effects of consumers' interest in using internet banking toward the decision in performing transaction through; and how the effects of consumers' interest in using internet banking mediate the relation between trust, risk and technology acceptance models with the decision to perform transaction through internet banking. From the result of discussion, the conclusion of this research could be taken as follows: trust brings effects on consumers' interest in using the internet banking; risk brings effects on consumers' interest using the internet banking; perceived case of use brings effects on consumers' interest using the internet banking; perceived usefulness brings effects on consumers' interest using the internet banking; perceived of credibility brings effects on consumers' interest using the internet banking; consumers' interest in using internet banking brings effects on decision to perform transactions; consumers' interest in using internet banking could mediate the relation between trust, risk and technology acceptance models with decision to perform transaction through the internet banking.*

*Keywords: trust, risk and technology acceptance model, consumers' decision, consumers' interest as an intervening variable*

### **1. INTRODUCTION**

According to the record of WDR research, the growth of internet users in Indonesia reached 105% per year and becomes the highest growth among Asian countries after China (Boerhanoeddin, 2003 in Ainur, 2007). There are six reasons why

internet technology becomes very popular. Those six reasons are; internet has wide connectivity and range; internet can reduce the cost of communication; the lower transaction cost can lower agency cost; internet is interactive; internet is flexible, internet is easy, and internet has ability to distribute knowledge fast. One of the

evaluated concepts is the new business paradigm, which is e-banking. E-banking as a relatively new field of study which will be developing continuously has significant Greater Jakarta on the banking practices, at least in terms of service improvement and in making access to banking easier.

For the bank, cyberbanking gives a more efficient alternative compared to the branch banking (to serve consumers at branch offices). The bank can make use of it for the need to implement relationship marketing strategy. Other than that, the bank can also serve consumers whose locations are unreachable or has not been served by the branch office. For consumers, the cyberbanking service provides a lot of benefits like the saving of cost and time, safer transactions and processing a number of transactions flexibly and comfortably without any time boundaries (for example, paying telephone and electricity bills, checking the balance inquiry, transferring money, paying the credit card bills and other services)

The internet banking brings advantages for both consumers and bank. For consumers, it offers the ease and speed in processing the banking transactions. The benefit of providing internet banking services for banks is that internet banking could be a cheaper solution for infrastructure development compared to opening the ATM outlets. For instance, KlikBCA nowadays has replaced the function of 160 ATMs and reducing cost to print forms which consumers have to fill up, brochures, catalogues and replace them with electronics data. However, the internet banking also opens the door to crime executed through internet banking. The level of safety and confidentiality of the personal data are often questioned by consumers before they decide to use internet banking.

To look at the success of the internet banking implementation, it is a must to consider the behavioral aspects. Those behavioral aspects are reflected in Technology Acceptance Model developed by Davis (1986 in Sri Maharsi and Yuliani

Mulyadi, 2007). The concept is used to observe the Greater Jakarta of perceived ease of use, perceived usefulness and perceived of credibility variables to the behavior intention to use the technology of information. Important things other than those variables are risk and trust in internet banking transactions. Those two things become considered factors in performing virtual transactions because of the distance, the technology ability to facilitate transactions, the non – face to face services with tellers/customer services; and there are things considered by the bank's consumers before doing transactions through the online banking (Shergill dan Li, 2005). The risk and trust variables are added to observe the behaviors of bank consumers to use this internet banking. From that background, researchers aim to conduct a research on "The Impacts of Trust, Risk and Technology of Consumers with the Consumers' Interest as Intervening Variable."

Based on the background problem abovementioned, the formulation of Acceptance Models (Tritam) to the Problem decisions in this research are on: what are the impacts of trust, risk and technology acceptance models, perceived ease of use, perceived usefulness, perceived of credibility towards the consumers' interest in using internet banking? What are the effects of consumers' interest in using internet banking toward the decision in performing transaction through internet banking? Also, how the effects of consumers' interest in using internet banking mediate the relation between trust, risk and technology acceptance models with the decision to perform transaction through internet banking?

The aims of this research are to figure out the impacts of trust, risk and technology acceptance models, perceived ease of use, perceived usefulness, perceived of credibility towards the consumers' interest in using internet banking; the effects of consumers' interest in using internet banking toward the decision in performing transaction through; and how the effects of consumers' interest in

using internet banking mediate the relation between trust, risk and technology acceptance models with the decision to perform transaction through internet banking. The merit of this research for academicians is that it could provide information scientifically and could be referred to for the next researches. While for the banks, this is expected to bring insights on what factors could affect the interest of the internet banking users and decision to perform transactions.

The literary studies of the research is on the definition of Bank according to Law No.10 of 1998 on the amendment of Law No.7 of 1992 Article 1 Paragraph 2 on Banking. Bank is a business entity which raises funds from public in form of savings and channels them back to the public in form of credit and others in order to improve the standard of living of the people. Internet banking is a banking activity performed online; in this case, internet banking is more flexible as it is not bordered by time and space, so that consumers could reach banking services anywhere anytime. Thus, it could be said that internet banking is like the intangible branch office of a bank because all of its activities are performed online. The Perceived Usefulness of internet banking is the benefit gained or expected by the consumers in doing their tasks and duties. Someone will adopt internet banking if that person believes that the internet banking could bring advantages on their jobs and their achievement at work. Thus, the level of internet banking usefulness affects the consumers' behavior on that system. The Perceived Easy of Use is a perspective definition indicating that a system is built not to complicate its users, but to ease people in finishing their work. People who use the system will work more easily compared to those using manual system. Perceived Credibility is perceptions on a condition on which trust could be given, for it has good credibility. In this research, perceived credibility is perceptions on the internet banking's credibility related to trust towards the banking company such as reputation,

achievement etc. Risk is an uncertain condition considered by people to decide or not to perform online transactions. People will really consider the distance and impersonal situation on line transaction and global infrastructure that bring a lot of risks. The amount of consumers' perceptions on risk affects the amount of their trust to the online banking and its system. Thus, while processing information online, consumers often consider that the high risk is there even though the risk is actually low (Mukheerjee dan Nath, 2003). Trust on the online transaction hosts (banking/ retailer/ producers) and trust on the operational mechanism of transaction performed. Big efforts should be performed by online transaction hosts so that consumers' trust will get higher, for trust has big impacts on consumers' intention to perform or not to perform online transaction. The interest to use Internet Banking is illustrated as the online relation between consumers and the online banking. This research consider the interest to perform online transaction, such as transfer between bank accounts, payment of bills, balance inquiry, the opening and allocation of deposit and so on.. In TAM, perception factor towards the ease to use technology and perceptions on the usefulness of a technology relates to one's behavior towards the use of that technology. The behavior of like and dislike toward certain product could be use to predict one's interest behavior to use or not to use that product.

The Development of Model used in this study is the basic model of the research of Lui and Jamieson (2003) as well as the research of Shergill and Li (2005). Lui and Jamieson use TRITAM concept which is a modification of the TAM model, while Shergill and Li examine the factors that affect trust. Based on the research of Maharsi and Fenny (2006), it is shown that the trust of internet banking users (TRU) is proved to give significant effects on the users' loyalty to use the internet banking. Based on these results, the research hypothesis is set as follows:

H<sub>1</sub> : Trust brings effects on consumers' interest in using internet banking.

The modifications of TAM model was also conducted by Venkantesh (2002) by adding trust variable with the title: Trust enhanced the Technology Acceptance Model. Another TAM modification is Trust and Risk in Technology Acceptance Model (TRITAM) which uses trust and risk along with TAM variables (Lui and Jamieson, 2003). Based on the research of Lui and Jamieson (2003), it could be known that perceived risk brings effects on the intensity of transaction. Based on these results, the research hypothesis is set as follows:

H<sub>2</sub> : Risk brings effects on consumers' interest in using internet banking.

Based on the research of Lui and Jamieson (2003), it could be known that perceived ease of use and perceived usefulness bring effects on the intensity of transactions. Based on these results, the research hypothesis is set as follows:

H<sub>3</sub> : Perceived ease of use brings effects on consumers' interest in using internet banking.

H<sub>4</sub> : Perceived usefulness brings effects on consumers' interest in using internet banking.

Based on the research of Maharsi and Fenny (2006), it can be seen that the user confidence on the Perceived of credibility is proved to give significant Greater Jakarta on the users' loyalty to use internet banking. Based on these results, the research hypothesis is set as follows:

H<sub>5</sub> : Perceived of credibility brings effects on consumers' interest in using internet banking.

Once consumers' are interested, the next step is to purchase. Based on the research of Prabowo (2007), it is known that the interest brings effects on consumers' decisions in transaction, so the hypothesis is formulated as follows:

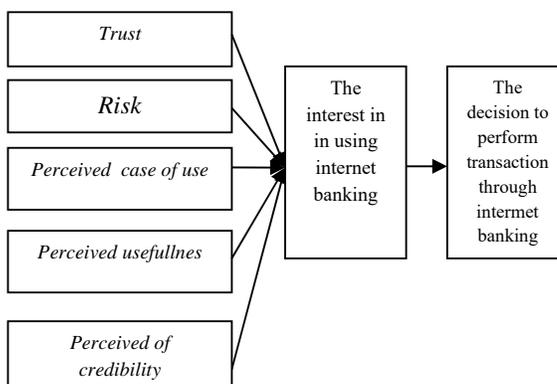
H<sub>6</sub> : Minat nasabah dalam menggunakan internet banking berpengaruh terhadap keputusan dalam bertransaksi./ The consumers' interest

bring effects on consumers' interest in using internet banking.

Based on previous studies, it is known that the effects of trust, risk and technology acceptance models towards the consumers' interests as an intervening variable, and that interests affect the consumers decision, then the hypothesis.

H<sub>7</sub> : The consumers' interest in using the internet banking could mediate the relationship between trust, risk and technology acceptance models with decisions in performing transaction through the internet banking.

Based on the abovementioned theory, the authors use the TRITAM concept. Thus, the framework is set as follows:



Picture 1: The Framework

Based on the method of this research, objects and targets are set on the corporate banking services which implement the internet banking and targets are set on internet banking users in Greater Jakarta. Types and Sources of Data of this research the uses primary data, i.e data coming directly from respondents as the results of questionnaires. The method of data collection used in this study is survey method, using questionnaire as its instrument. Population and sample of this research are public and private bank consumers who have been using the internet banking in Greater Jakarta. The sampling method uses accidental sampling method, i.e.

customers who are using the internet banking and able to answer every question item in the questionnaire.

## RESEARCH METHODOLOGY

### 1. Objects and Targets of the Research

This research is conducted on the banking service companies which implement internet banking, and the targets are internet banking users in Greater Jakarta.

### 2. Types and Sources of Data

This research uses primary data, which are data coming directly from the respondents based on questionnaire results.

### 3. The Method of Data Collection

The data collection of this research uses the survey method with questionnaire as the research instruments.

### 4. Population and Samples

Population of this research consists of consumers of public or private banks who ever used internet banking in Greater Jakarta. The method of sample collection uses accidental sampling method, consisting of consumers who use internet banking and able to answer every question in questionnaire given.

### 5. Operational Definitions for this research are:

- a. Trust ( $X_1$ )
- b. Risk ( $X_2$ )
- c. Perceived ease of use ( $X_3$ )
- d. Perceived usefulness ( $X_4$ )
- e. Perceived credibility ( $X_5$ )
- f. Decision ( $Y_2$ )
- g. Interest ( $Y_1$ )

Data analysis techniques in this research are: The Measurement of Variables, Validity Test, Standardized loading, Structural Equation Modeling (SEM)

There are seven steps to be taken when using Structural Equation Modeling (SEM) (Ferdinand; 2005): the phases are:

- a. The development of theoretical models.
- b. The development of flowchart (path diagram).

c. The conversion of flowcharts into equation.

d. Selecting the input matrix and estimation models using matrix variance / covariance or correlation matrix for the overall estimation performed.

e. The possibility of identification problems

f. Evaluation of goodness of fit criteria

The last step is to interpret and modify the model for models that do not fit the requirement of qualify tests performed.

## The Hypothesis Testing

Hypothesis testing is done through the t-test to see the significance of the coefficient regression resulted from the variety of causality in the model. The mediation testing is conducted using the procedure developed by Sobel (1982 in Ghozali, 2009: 220-221) and known as Sobel test (Sobel test).

From the discussion of the research, it can be seen that the first hypothesis states that trusts affect consumers' interest in using internet banking. Based on the results of the analysis, it is shown that there is the presence of positive Greater Jakarta of trust on the interest of using internet banking. These results are consistent with the research of Maharsi and Fenny (2006); it can be known that the users' trust on the internet banking user (TRU) is proved to bring significant effects on users' loyalty to use the internet banking.

The second hypothesis states that risk affects the consumers' interest in using the internet banking. Based on the results of analysis, it can be known that the risk variable has negative effects on the interest in using internet banking; the higher the risk is, the lower the interest to use internet banking. This means that there is negative and significant influence of the risk variable on the interest in using internet banking. The result of this study is in accordance with the research of Lui and Jamieson (2003); it is known that perceived risk bring effects on the transaction intensity.

The testing of third and fourth hypothesis is the development of the research of Lui and Jamieson (2003), from which it can be seen that perceived ease of use and perceived usefulness brings effects on the intensity of the transaction. The third and fourth hypothesis is perceived ease of use affect the customers' interest in the use of internet banking and perceived usefulness affect the customers' interest in using internet banking. Based on the analysis results can be seen perceived ease of use has a positive effects on interest in using internet banking, ie the better the perceived ease of use it will result in an interest to use internet banking is getting higher. The result of this research also concludes that there is a positive influence of perceived usefulness variable towards the interest to use internet banking, meaning that the better the perceived usefulness is, the interest in using internet banking will also become stronger.

The fifth hypothesis states that the perceived of credibility brings effects on consumers' interest in using the internet banking. Based on the results of the analysis, it can be seen that there is a positive and significant Greater Jakarta from the variable of perceived credibility towards the interest in using internet banking. The result of this research is in accordance with the research of Maharsi research and Fenny (2006), from which it can be seen that on the users' trust on the Perceived of credibility shown is proved to bring significant effects on the users' loyalty to use the internet banking.

The sixth hypothesis states that the consumers' interest in using the internet banking brings effect on the decision to perform transaction. Based on the results of the analysis, it can be known that the variable of interest in using internet banking brings positive effects on the decision to perform transaction through the internet banking. The stronger interest to use the internet banking will lead to the better decision to perform transactions through the internet banking. The result of this research is in accordance there with Prabowo's research (2007), from which it is known that

the consumers' interest brings effects on their decisions to perform transaction.

The seventh hypothesis states that the consumers' interest in using the internet banking could mediate the relationship between trust, risk and technology acceptance models with the decisions to perform transaction through the internet banking. Based on the results of the analysis, it is shown that the interest could mediate trust, risk, perceived ease of use, and perceived usefulness with the decision to use internet banking, while the variables of perceived credibility can not be mediated by the interest towards the decision to use the internet banking.

## **DISCUSSION**

From the discussion of the research, it can be seen that the first hypothesis states that trusts affect consumers' interest in using internet banking. Based on the results of the analysis, it is shown that there is the presence of positive influence of trust on the interest of using internet banking. These results are consistent with the research of Maharsi and Fenny (2006); it can be known that the users' trust on the internet banking user (TRU) is proved to bring significant effects on users' loyalty to use the internet banking.

The second hypothesis states that risk affects the consumers' interest in using the internet banking. Based on the results of analysis, it can be known that the risk variable has negative effects on the interest in using internet banking; the higher the risk is, the lower the interest to use internet banking. This means that there is negative and significant influence of the risk variable on the interest in using internet banking. The result of this study is in accordance with the research of Lui and Jamieson (2003); it is known that perceived risk bring effects on the transaction intensity.

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The fifth hypothesis states that the perceived ease of credibility brings effects on consumers' interest in using the internet banking. Based on the results of the analysis, it can be seen that there is a positive and significant Greater Jakarta from the variable of perceived ease of credibility towards the interest in using internet banking. The result of this research is in accordance with the research of Maharsi research and Fenny (2006), from which it can be seen that on the users' trust on the Perceived ease of credibility shown is proved to bring significant effects on the users' loyalty to use the internet banking.

The sixth hypothesis states that the consumers' interest in using the internet banking brings Greater Jakarta on the decision to perform transaction. Based on the results of the analysis, it can be known that the variable of interest in using internet banking brings positive effects on the decision to perform transaction through the internet banking. The stronger interest to use the internet banking will lead to the better decision to perform transactions through the internet banking. The result of this research is in accordance there with Prabowo's research (2007), from which it is known that the consumers' interest brings effects on their decisions to perform transaction.

The seventh hypothesis states that the consumers' interest in using the internet banking could mediate the relationship between trust, risk and technology

acceptance models with the decisions to perform transaction through the internet banking. Based on the results of the analysis, it is shown that the interest could mediate trust, risk, perceived ease of use, and perceived usefulness with the decision to use internet banking, while the variables of perceived ease of credibility can not be mediated by the interest towards the decision to use the internet banking.

## CONCLUSION

The conclusion of this research based on the above discussion is as follows:

Trust brings effects on consumers' interest in using the internet banking.

Risk brings effects on consumers' interest using the internet banking.

Perceived ease of use brings effects on consumers' interest using the internet banking.

Perceived usefulness brings effects on consumers' interest using the internet banking.

Perceived ease of credibility brings effects on consumers' interest using the internet banking.

Consumers' interest in using internet banking brings effects on decision to perform transactions.

Consumers' interest in using internet banking could mediate the relation between trust, risk and technology acceptance models with decision to perform transaction through the internet banking.

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