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Customers who perceive that internet banking is very useful to help them do financial transaction activities will also have positive attitude. Attitude which is an individual's general assessment of cognitive beliefs is shaped by some attributes inherent in technology. Perceived usefulness is a cognitive belief that forms attitudes. There is a positive influence between cognitive belief and attitude, implying that more positive belief will encourage more positive attitude towards internet banking. As the results, the level of internet banking benefit affects the attitudes and intention among customers towards the use of the internet banking service.

#### **4.5 The Influence of Perceived Usefulness on Users' Intention in Using Internet Banking**

Hypothesis 5 states that perceived usefulness has a significant effect on the intention to use internet banking. Table 1 shows that the regression coefficient of the perceived usefulness toward users' intention is 0.194 and CR is 2.182 ( $p = 0.029$ ). The use of significance level at 0.05 has obtained CR table of 1.96, in which the calculated CR value is greater than the CR table. Thus, it can be implied that the regression coefficient is significant. Hence, the result of this research supports the belief that a direct and significant influence exists between the perceived usefulness on the intention in using internet banking. Therefore, hypothesis H13 which states that there is a direct significant influence between perceptions of perceived usefulness is accepted. This finding supports the ones found by Lee, Qureshi et al, and Baraghani, in which they found a direct significant influence between perceived usefulness on users' intention in using internet banking [2,22,29].

In this context, intention refers to customers' desire in adopting internet banking

technology. The results of this study show that perceived benefit has a significant positive influence on customers' intention in using internet banking. Individual motivation is triggered by the intention to obtain benefits. The benefits gained from the use of internet banking include improved work performance and broader access to information. Perceived benefit has a strong influence on the use of internet banking. Technology utilization is closely related to users' attitude in utilizing the technology to complete certain tasks. Internet banking offers them benefit in carrying out their duties related to financial transactions which degree of usefulness can be measured by the utilization intensity, frequency of use, and the number of applications or software used.

The use of technology reflects individual's decision whether or not to use technology in completing a series of tasks. Ideally, in relation to compatibility of task-technology, the use of technology is measured by how much the proportion of customers choose to utilize internet banking technology. The operation reflects the user's decision to use technology based on user's evaluation of the suitability of technological tasks, making the use of technology takes place in a voluntary situation. The concept of utilization reflects individual's acceptance upon the system. Customers who perceive internet banking very useful to help them with financial transaction activities will also have higher cognitive belief. Perceive usefulness is a cognitive belief that influences one's intention in using internet banking. It can be inferred that that the more positive cognitive belief, the stronger users' intention to use the internet banking service system.

#### **4.6 The Influence of Attitude on Intention in Using Internet Banking**

The sixth hypothesis states that attitude has a significant influence on the intention to use internet banking. Table 1 shows that the regression coefficient of attitude on intention is 0.452 and CR 5.509 ( $p = 0,000$ ) at a significance level of 0.05, in which CR table was found at 1.96, showing that the calculated CR value is greater than the CR table. It can be inferred from this result that the regression coefficient is significant.

The results of the analysis support the belief that attitude has a direct influence on the intention in using internet banking. Therefore,

the research hypothesis H1 which states that there is a direct significant influence of attitude on the users' intention to use internet banking is accepted.

This finding supports the results of research conducted by Chiou et al, Baraghani and Lee, which confirm the existence of direct influence of attitude on the intention in using internet banking [2,6,22]. On the contrary, this finding is contradictory to the results of research conducted by Davis, Ajzen and Fishbein, who found no significant influence between attitudes on intention in using the technology [1,8].

Positive attitudes of internet banking users can be enhanced by increasing customer value [35]. The value of the customer in this case refers to the ratio between the perceived usefulness of the customer and sacrifice that customers give to access the internet banking (perceived sacrifice). Whilst, customers' perceived usefulness involves two things, namely product attributes and service attributes. Product attributes are the benefits that customers obtain from certain products, which are generally a combination of functional attributes of certain products or services with features offered by the product or service. Service attributes include details of the services available on internet banking. While the sacrifice made by the customer (perceived usefulness) is a cost (perceived reasonable price) which includes transaction costs, product life cycle costs and risk. Transaction costs are costs that must be borne by the customer when they make transactions using internet banking. Product cycle costs are costs that must be paid during the life cycle of the transaction through internet banking. At last, risks are consequences that customers should deal with when they decide to use internet banking services.

The results of the study which state the influence of attitudes on intention to use internet banking indicate that customers' attitudes are variables that must be considered in the implementation of internet banking technology. Customers will use internet banking if they have positive feeling that the internet will make their jobs easier. It is almost certain that customers who believe in the positive benefits of internet banking will maintain this positive attitude as they keep using internet banking. Attitude that is formed by positive feelings upon internet banking will create loyal customers and this will certainly benefit the bank.

To generate positive feelings for customers about the use of internet banking, banks must create an effective promotional strategy using

advertisements that continuously display positive benefits of the use of internet banking. Advertisement can be used effectively to build long-term images of certain products and companies and it can also trigger immediate purchases [33]. Advertisement is also employed to educate and build a brand's preferences. Using advertisement, awareness of certain product can be enhanced [19]. Thus, advertisement in the context of internet banking is rather indispensable in forming customers' positive feelings about the benefits of internet banking, through which positive attitudes and higher frequency in adopting internet banking technology are improved.

#### 4.7 Research Findings

The findings of this research, which most coefficients are found significant indicate that the results provide strong support for most of the hypothesized influences. This research also confirms the suitability of TPB and TAM as appropriate models in explaining individual attitude in adopting internet banking. These results also support that the TPB and TAM models can be modified by involving trust as an intervening variable.

This research was conducted to propose an expansion of the model which involves trust and TAM model with TPB in a more comprehensive manner which simultaneously predict the acceptance of internet banking among users. This research combined TAM and TPB by putting into account environmental characteristics of Internet banking. This research also has verified that trust is one of the most important determinants in the adoption of internet banking technology. It can be inferred from this research that the theory of technology adoption and trust models can increase the customers' intention to adopt internet banking.

This study shows that acknowledging both technology adoption and trust model theories can increase customer interest in adopting internet banking. As for the details of the findings in this study which include the factors associated with internet banking adoption as follows:

1. The direct influence of attitude towards interest in using internet banking indicates that the variable attitude of customers of internet banking users is a variable that must be considered in the implementation of internet banking technology. Customers will use internet banking if the customer has a positive feeling that the internet will really

help his job. From these results, it can be seen that customers who believe that internet banking is positively beneficial will maintain a positive attitude by maintaining the use of internet banking. Attitudes that are formed due to positive feelings about internet banking will create loyal customers and this will certainly benefit the bank.

2. The findings of this study indicate that trust shows that trust has a direct effect on attitudes and perceived usefulness. The findings of this study also provide support that the TPB and TAM models can be modified by adding a trust variable as an intervening variable. Of course, the increased customer trust will affect the customer's attitude in adopting internet banking technology. The research finding which states that trust has a significant effect on the perceived usefulness of using internet banking is an important finding because in order for a technology to be perceived as useful, internet banking technology must be reliable in the security of customer transaction data.
3. Perceived usefulness have a strong influence on the use of internet banking. The use of technology is related to the behavior of using the technology to complete tasks. The use of internet banking is a benefit expected by customers in carrying out their duties related to financial transactions. Customers who have the perception that using internet banking is very beneficial in their financial transaction activities will increase their cognitive confidence. Perceived usefulness are cognitive beliefs that affect the interest in using internet banking. This means that the more positive cognitive confidence in the benefits of internet banking will affect customer interest in using the internet banking service system.

## 5 Conclusions, Implications, Limitation, and Recommendation of the Research

### 5.1 Conclusions

Based on the results of descriptive and inferential analyzes that have been carried out, conclusions can be drawn as answers to the problems and objectives that have been set, as follows:

1. Attitude has a significant effect on interest in using internet banking. This finding informs that customers will use internet banking if the customer has a positive

feeling that the internet will actually help his job.

2. Trust has a significant effect on attitude to use internet banking. These findings inform that the implementation of hardware and software updates carried out by careful banks with the aim of data security for transactions carried out by customers in internet banking will generate customer confidence in internet banking technology with increased customer confidence will affect customer attitudes in adopting internet banking technology.
3. Trust has a significant effect on the intention to use internet banking. The findings of this study answer that empirically trust does not affect interest because these individual, social and institutional factors influence customer beliefs in the adoption of internet banking technology. When a customer adopts internet banking, his cognitive beliefs must be established first, meaning that the higher the customer's cognitive confidence in internet banking, the higher the level of trust.
4. Trust has a significant effect on perceived usefulness using internet banking. This finding informs that the understanding of internet banking technology, although useful and easy to operate, does not mean ignoring the value of security to maintain the level of customer confidence in the bank. These results prove that increasing customer confidence in internet banking security will increase customer cognitive awareness of the benefits of using internet banking.
5. Perceived usefulness has a significant effect on attitudes to using internet banking. This finding informs that the level of benefit of internet banking affects the attitudes and interests of each customer towards the use of the internet banking service system.
6. Perceived usefulness has a significant effect on the intention to use internet banking. This finding informs that the customer's decision to use technology is based on the results of his evaluation of the technology task suitability factor so that the use of technology takes place in a voluntary situation. The utilization concept reflects the individual's choice to accept the system, or system institutionalization. Customers who have the perception that using internet banking is very beneficial in their financial transaction activities will increase their cognitive confidence. This means that the

more positive cognitive belief in the benefits of internet banking has an effect on customer interest in using the internet banking service system.

## 5.2 Implications

This study examines the influence of the relationship between variables developed based on various thoughts, arguments and several theories. The results of this study are expected to implication to testing and clarification of the validity of these theories and consistency with previous studies. The theoretical implications in this research are as follows:

1. The results of this study also provide support that the TPB model can be modified by adding a trust variable as an intervening variable. The results of this study prove that TPB has the characteristics of both simple theory (parsimony) and is supported by data (verifiability) and can be applied in predicting the determinants of information technology adoption.
2. The results of this study provide confirmation of the suitability of the technology acceptance model theory which states that the behavior of using technology is initiated by the perception of perceived usefulness of a technology. The results of this study also provide support that the TAM model can be modified by adding a trust variable as an intervening variable. The results of this study prove that TAM has the characteristics of both simple theory (parsimony) and is supported by data (verifiability) and can be applied in predicting the determinants of information technology adoption.

This practical implication also applies to national banking institutions, especially banking institutions that have provided internet banking services. This study provides additional information regarding the factors that influence customers to receive internet banking services so that banks can better determine banking strategies and policies in the future. The results of this study indicate that most of the coefficients are significant and provide strong support for most of the hypothesized relationships. This study has verified that additional trust is one of the most important determinants of internet banking technology adoption. The results of this study indicate that acknowledging trust as intervening variables can increase customer interest in adopting internet banking. The success of internet banking adoption is determined by the

perceived usefulness, the attitude factor, and the customer trust factor towards internet banking.

## 5.3 Limitations

This research and the obtained results have not yet been able to give thorough and holistic explanation of various problems related to the models of internet banking technology adoption in Indonesia due to the limitation within the researchers and obstacles that occurred during this research including:

1. The primary data of this study were obtained through a questionnaire which the choice of answers were made based on customers' perception. This perception-based assessment can experience a social desirability bias, which is a bias that arises as respondents provide answers that they consider appropriate or good based on their own personal measurement. Hence, the data might not precisely reflect the intended variables (Arnold and Feldman, 1981). This problem made it difficult for researchers to screen the truth and honesty of customers' responses based on actual circumstances and reality, even though the questionnaire cover letter provided information related to the secrecy of customers' data.
2. Although the number of samples in this study has fulfilled the SEM assumption, higher number of samples is still necessary in order to be able to generalize findings of this study to the actual model of customer adoption of internet banking in Indonesia.

## 5.4 Recommendations

1. Based on the above results, in the next study, new variables or indicators can be added to enrich the model used in this study. Thus, the results of subsequent studies can be more perfect and the conclusions obtained may differ or remain the same as the results of this study. If it is proven that the results are the same, it means that the internet banking technology adoption model used in this study has high consistency to be applied in Indonesia.
2. It is recommended that other researchers increase the number of research samples. Thus, the results of subsequent research can be more perfect and the conclusions obtained can more generalize about the actual adoption model of internet banking users in Indonesia.

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