

What Factors Influence the Behaviour Intention of the Internet Banking

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Abstract—Internet banking is one prove of the increasing technology development and become the innovation in technology that should follow and adopt by the user. The purpose of this study is to investigate what factors that can influence the behavior intention of the internet banking user in the big city in Indonesia with the technology adoption model that adopted from J.-Cu. The collected from 258 respondents with purposive sampling method. The study found that self-efficacy is a strong determinant that affects perceived ease of use, which directly or indirectly affects behavioral intention using internet banking. Structural assurances are strong determinants that influence trusts, which can increase the behavioral intention of using internet banking. And system quality is a powerful determinant of perceived usefulness, which directly or indirectly can affect the behavioral intention using internet banking. This study shows the effect of behavioral intention from the influence of perceived usefulness factor, perceived ease of use, and trust.

Keywords—behavior intention; internet banking; multivariate analysis; Technology Acceptance Model (TAM)

I. INTRODUCTION

Internet banking allows busy people to complete their financial activities in a cost-effective and efficient way on a daily basis, regardless of their physical location [1]. Internet (or online) banking is a new type of information system that uses the Internet and the World Wide Web, and has changed the way customers perform financial activities in virtual space [2]. Internet banking has the advantage of saving time, convenient transactions, 24 hour access, fast confirmation, no need to go to the bank, security by choosing PIN itself, and not having to carry large amounts of cash [3].

In Indonesia internet banking the number of transactions in 2011 amounted to 816.3 million transactions, increasing in 2012 by 49.25% to 1218.3 million transactions, then in 2013 increased by 1.10% to 1231.7 million transactions. Based on the results of MARS Indonesia survey, in 2013 explained that from 1,710 customers in 5 cities (Jakarta, Bandung, Semarang, Surabaya, Medan) surveyed, as many as 34.7% stated aware or internet banking literate. Customers in Bandung are the most aware of internet banking customers compared to other cities, with a portion of 39.3%. Therefore, this research will be conducted in Bandung [4].

Several models are built to analyze and understand the factors that influence the use of information technology recorded in various literature and reference to research results in the field of information technology such as the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Technology Acceptance Models (TAM) [5]. Technology Acceptance Model (TAM) is a model compiled by Davis to explain the acceptance of technology to be used by technology users.

Theory Reasoned Action (TRA) was first coined by Ajzen in 1975 which assumes the basis that humans behave in a conscious manner and consider all available information [6]. Theory of Planned Behavior (TPB) is a further development of TRA by adding perceived behavioral control [7]. Davis considers that the actual use of a system is a behavior, thus TRA would be appropriate to explain and predict that behavior [6].

In the TAM model to be studied, this model will explain the understanding of behavioral intention (behavioral intention) of internet banking usage. The framework of thought adopted from the journal Gu, Ja-Chul et al. adds a trust construct to its TAM model [8].

The purpose of this study is to investigate what factors that can influence the behavior intention of the internet banking user in the big city in Indonesia with the technology adoption model

Perceived usefulness is defined as the extent to which individuals believe that using a particular system will improve their work performance [5]. Davis, perceived ease of use is defined as the extent to which an individual believes that using a particular system will be free of effort [8]. Behavioral intention, Ajzen states that behavioral intention reflects someone who is willing to try and be motivated to perform behavior [8]. In the J.-C research [8], has a notion more or less as follows; trust refers to "individual beliefs that others will behave on the basis of certain individual expectations" and the hope that others choose to believe will not behave opportunistically by taking advantage of a particular situation. Social influence as a perception where many people suggest other individuals to use or not to use IT [8]. System Quality (higher quality) is expected to lead to high user satisfaction, which can help individual productivity, thus increasing

organizational productivity [9]. Self-efficiency, defined as the belief that the individual has the ability to perform certain actions with IT [8].

Facilitating condition is one provided by the organization for the purpose of helping others in learning certain knowledge in an effective way [10]. Familiarity is an understanding that is often based on previous interactions, experiences, and learning about what, why, where, and when others do what they do [8]. Situational normality, called the normal situation in accordance with the usual [8]. Users will see usage being easy when users have prior knowledge of how to use banking services typically [8]. Structural Assurances refers to " safety nets such as legal sources, guarantees, and existing rules in a particular context [8]. Calculative-based trust refers to the relationship between costs and benefits [8].

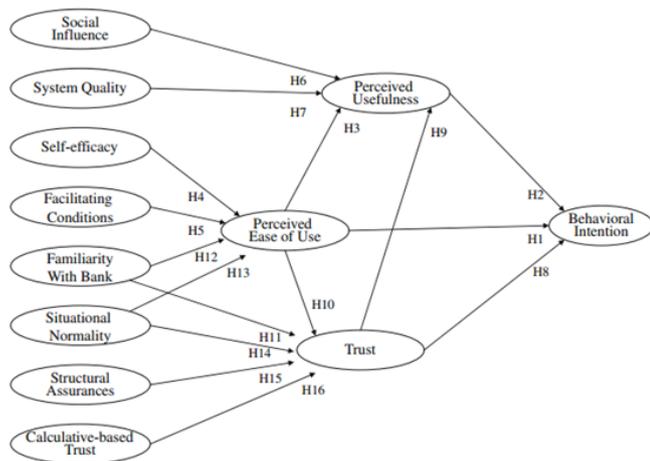


Fig. 1. Research framework [8].

Base on the framework llisted on figure 1, than we have research hypothesis as follow:

- Hypothesis 1: Perceived Ease of Use has an influence on Behavioral Intention
- Hypothesis 2: Perceived Usefulness has an influence on Behavioral Intention
- Hypothesis 3: Perceived Ease of Use has an influence on Perceived Usefulness
- Hypothesis 4: Self-efficacy has an influence on Perceived Ease of Use
- Hypothesis 5: Facilitating Condition has an influence on Perceived Ease of Use
- Hypothesis 6: Social Influence has an influence on Perceived Usefulness
- Hypothesis 7: System Quality has an influence on Perceived Usefulness
- Hypothesis 8: Trust has an influence on Behavioral Intention
- Hypothesis 9: Trust has an influence on Perceived Usefulness
- Hypothesis 10: Perceived Ease of Use has an influence on Trust

- Hypothesis 11: Familiarity with Bank has influence on Trust
- Hypothesis 12: Familiarity with Banks has an influence on Perceived Ease of Use
- Hypothesis 13: Situational Normality has an influence on Perceived Ease of Use
- Hypothesis 14: Situational Normality has influence on Trust
- Hypothesis 15: Structural Assurance has an influence on Trust
- Hypothesis 16: The Calculative-based Trust has an influence on Trust

II. METHOD

This research uses quantitative method. This type of research includes causal research, which analyzes the relationship between one variable and another [11]. The sampling technique used in this study is non probability with the type of purposive sampling. The population in this study is bank customers in Bandung, with the number of samples of 200 respondents using internet banking in Bandung. Scale of measurement using Likert scale, four-scale option can also be used for Likert scale questionnaires that force people to choose one of the poles because the choice "neutral "Not available [12].

III. RESULTS

Data analysis techniques performed using Partial Least Square (PLS). PLS aims to examine the predictive relationship between constructs by looking at whether there is a relationship or influence between the constructs. Tests with PLS-SEM can be performed without a strong theoretical basis, neglecting some assumptions (non-parametric) and predictive model prediction parameters seen from the value of the determination coefficient (R square). Therefore, PLS-SEM is particularly applicable to research aimed at developing theory [13]. Convergent validity of the measurement model with reflective indicator model is judged by correlation between item score / component score with construct score calculated by PLS. Reflective size is said to be high if it correlates more than 0.70 with the construct that you want to measure. However, for research the initial stage of developing a measurement scale of loading values 0.50 to 0.60 is considered sufficient [14]. All values of loading on the model are sufficient with values ranging from 0.512772 - 0.951444, can be seen in Appendix A. The reliability of all collisions can be seen from the composite reliability and construct validity values of AVE which can be seen in Appendix 1. The value of composite reliability in The construct is reliable because it has a value > 0.6 [15], with a valid AVE value because it has a value > 0.5 [14].

Figure 2 shows the t-statistics obtained from the bootstrap result using the Smart PLS 2.0 program. The model has a R-Square Perceived Usefulness of 51.2%, Perceived Ease of Use of 52.9%, Trust of 39.3%, and Behavioral Intention of 58.07%.

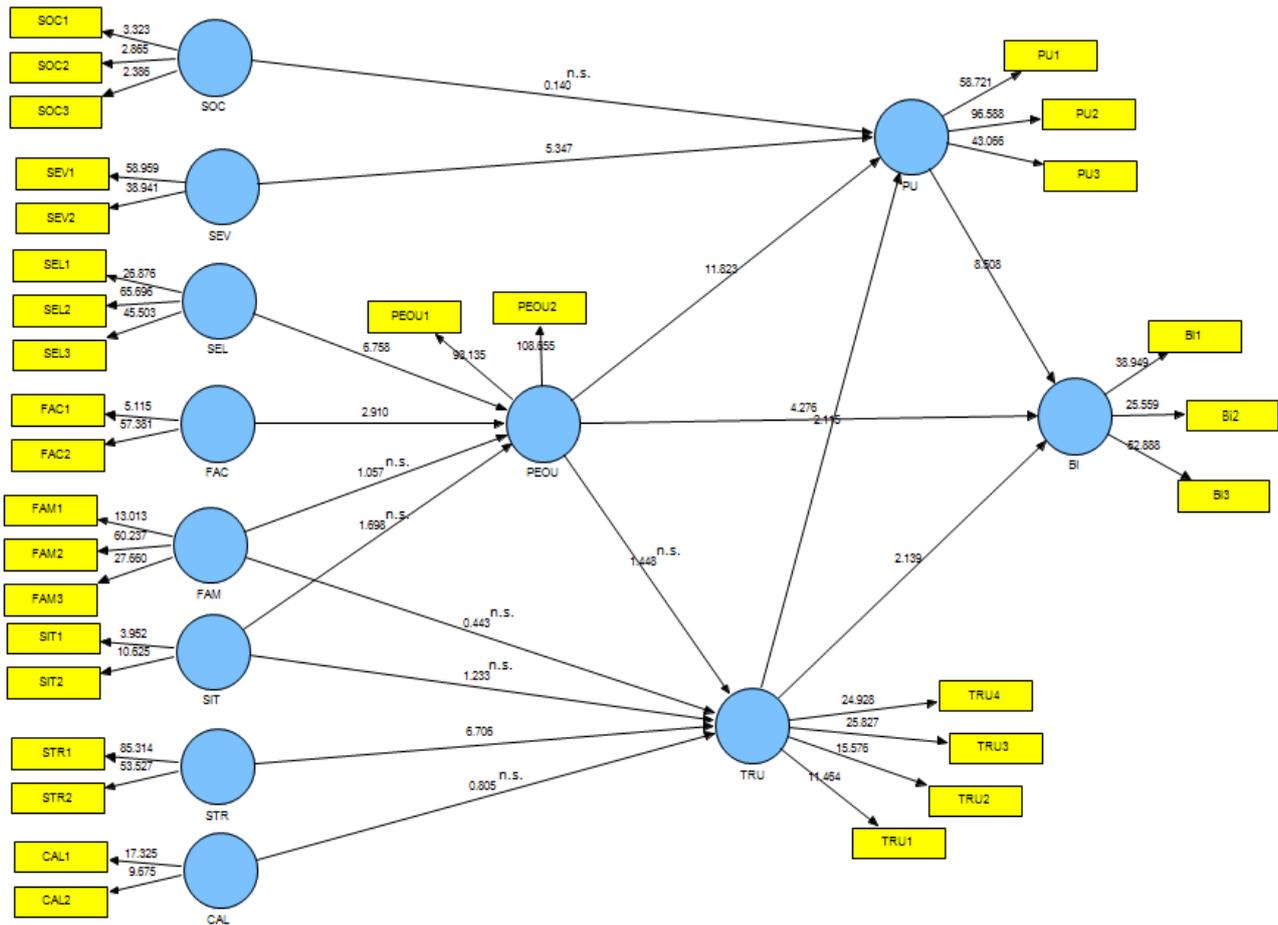


Fig. 2. Bootstrapping result.

Bootstrap results in figure 4 indicate whether there is a significant effect or not. Constructions have a significant effect if t-statistics are greater than t-tables (1.97). The result of bootstrap shows that seven insignificant, social influence to perceived usefulness, familiarity with bank to perceived ease of use, familiarity with bank to trust, situational normality to perceived ease of use, situational normality to trust, calculative-based trust to trust, and perceived ease of use against trust.

IV. DISCUSSION

Perceived usefulness (t-statistic = 8,507), perceived ease of use (t-statistic = 4,276), and trust (t-statistic = 2,139) have a significant effect on behavioral intention. Of all constructs that influence behavioral intention (behavioral intention), benefits (perceived usefulness) is the most influential construct. Determinants of Behavioral Intention to Mobile Banking that users do not hesitate to use mobile banking if they benefit from their performance. Ease (perceived ease of use) also has a significant effect on behavioral intention (behavioral intention) of someone in using internet banking. In using internet banking, trust has a significant influence on users to use internet banking. This result is the same as the previous research conducted [8], that trust is important to improve behavioral intention.

Perceived usefulness is directly influenced by the system quality (t-statistic = 5,346), perceived ease of use (t-statistic = 11,822) and trust (t-statistic = 2,115) except social influence (t-statistic = 0,139). Ease of use (perceived ease of use) influences directly or indirectly on behavioral intention (behavioral intention) through perceived usefulness [8]. Just like previous research conducted [8] that system quality has an influence on perceived ease of use. Internet banking must provide accurate and high speed services. Just like previous research conducted J-C. Gu et al., [8] that trust has a significant influence on perceived usefulness. Social influence does not have a significant influence on perceived usefulness. This is in accordance with previous research, which shows that social influences have no effect on perceived usefulness and behavioral behavior of financial services in a voluntary context [8]. In the context of using internet banking, a person uses internet banking instead of referencing others, but rather an individual need.

Perceived ease of use is directly affected by self-efficacy (t-statistic = 6,758), facilitating condition (t-statistic = 2,909), except familiarity with bank (t-statistic = 1,057) and situational normality (t-statistic = 1,698). Self-efficiency and facilitating conditions come from behavioral control, where the two variables include internal and external controls [16]. Facilitating conditions refer to the organizational and technical

infrastructure to support the use of the system and to remove obstacles when using it [16]. In a previous study conducted J.-C. Gu et al. [8], mobile banking must provide guidance in using the system [8]. Just as previous research conducted J.-C. Gu et al. [8] that familiarity with banks does not have a significant influence on perceived ease of use.

Trusts are only affected by guarantees (structural assurances) (t-statistics = 6,706) except familiarity with banks (t-statistics = 0,442), situational normality (t-statistics = 1,233) and calculative-based trust (t-statistics = 0,805). Structural assurances have a great influence on trust as well as previous research conducted [8], that respondents believe in banks because of the bank guarantees, thus affecting the behavioral intentions of using internet banking [17]. Based on calculative-based trust, trust can be formed by a rational assessment of the benefits and costs of those who commit fraud or are in a cooperative relationship [8]. To support ease of access and increasing trust, website design or other user interface must be consider to be in easy to navigate otherwise the design of website or other user interface must be consider in easy to navigate [18]. Other previous research say that Internet banking was placed differently on perceptual map. Mostly for e-banking they have been perceive as secure and easy to use [19].

V. CONCLUSION

In this study, self-efficacy is a perceived ease of use that directly and indirectly affects behavioral intention through perceived usefulness. Therefore to improve the ability of self and ease for the user is advised to provide instructions in using internet banking services so that all services provided can be used by users easily and can help the user in doing banking transactions. This study shows that the assurance (structural assurances) is the biggest factor that affects the trust (trust) that directly or indirectly can improve the behavior in using internet banking [17]. Although internet banking includes new technology in Indonesia, but users already believe in the banks they choose from starting offline banking activities to emerging banking technology online. So as to increase the trust of internet banking, banks must make users free from fear when conducting banking activities through internet banking [20]. System quality has a great influence on perceived usefulness that directly or indirectly improves behavioral intention in using internet banking [21]. Advice for bank internet banking service providers that the system and internet banking speed should be improved even more so that the perceived benefits are greater for the user so as to increase the behavior of the intention to continue using internet banking.

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