The role of initial trust on intention to use branchless banking application: case study of Jenius

C Setiyono¹, M R Shihab², F Azzahro³

¹²³ Faculty of Computer Science, Universitas Indonesia, Indonesia

Abstract. Branchless banking app is considered new technology in Indonesia. Thus, the initial trust is among the critical factors that may influence people to adopt branchless banking app. Many people feel that making transaction in branchless banking app is risky and unsafe. Therefore, the number of active users in the app still below target in its first year. This study examines the factors that affecting users’ initial trust towards branchless baking apps. Using Jenius, the first branchless banking app in Indonesia, this study combines several IT adoption theories such as Technology Acceptance Model (TAM) and Initial trust building theory. Survey was conducted to obtain data and PLS-SEM is utilized to test the overall correlation pattern between the proposed construction variables. It is found that information quality, customer support quality, and bank reputation are among factors that influence users’ initial trust. Meanwhile, users’ initial trust affects their perception towards easiness, usefulness and intention to use branchless banking app.

Keyword: branchless banking, TAM, initial trust

1. Introduction

According to Marketing Research Indonesia, the value of internet banking transactions in Indonesia has reached IDR 3,642 trillion in 2014. This amount exceeded the value of ATM and debit transactions of IDR 3,476 trillion in the same year. With internet banking model, bank can reduce transaction costs by providing clients with self-service banking transaction such as opening of deposit account, payment of the bill, checking balance inquiries and transfers to other accounts. In the meantime, the branch frequently remains a conceivable purpose of contact for the clients. Nevertheless, Bank BTPN has an independent "Internet-only banking model", in which their portable application (Jenius) is the only delivery channel to the client. In December 2017, Jenius has 299,195 active users, which still below the management target of 500,000 users. This shows that branchless banking app users are still in the early adoption stage. Initial trust is the most critical factor that encourage new customers to make their first online financial transaction [1].

One of the problems faced by the service provider is the cost of moving to another service is very insignificant. If customers cannot get a good first impression, they may revert to the conventional banking easily. Thus, it is important to develop users’ underlaying trust in order to acquire new customers. Initial trust develops when the user interacts with a system for the first time [1]. Prior researchers highlight the relevance of learning initial trust in high-risk environments, such as adopting a new technology, when new consumers make their first purchase from new service providers [1–6]. In previous research, initial trust was widely used in case studies of innovative apps such as e-banking and e-commerce. There is limited research focusing on branchless banking apps. Therefore, in this research we will use the framework of initial trust building (ITB) developed by McKnight (1998, 2002) to develop the factors that influence the community's initial confidence in the app of branchless banking. To examine the intention itself, this research adopted the theory of Technology Acceptance Model (TAM) developed by Davis (1989). Initial trust will be used as an external variable in the modified TAM framework.
Accordingly, this study will answer these following research questions: What are the effects of factors that drive initial user trust in branchless banking apps? What is the influence of the user's initial trust on the perceived usefulness, perceived ease of use, and intention to use the branchless banking?

2. Theoretical Background

2.1. Branchless Banking, Definition and Its Growth in Indonesia

Branchless banking is one of the channels that banks can use to deliver their services to customers, such as saving money, transferring, or collecting cash digitally via local retailer mediators instead of visiting any bank outlet [7]. Additionally, according to the Financial Services Authority (OJK), the concept of branchless banking is the extension of banking services without relying on branch offices, utilizing technological media, or assisted by agents such as stores, post offices, individuals, and others. With this innovation, the bank can reduce the cost of opening a branch office to serve customers. Customers can do banking transactions such as opening an account, paying bills, and transferring money by using internet and the help from field-agents, without necessarily having to go to the bank.

Currently, several banks in Indonesia have provided branchless banking services assisted by agents spread across the country, such as: AgenMU by bank Mandiri, BRILink by bank BRI, and AGEN46 by bank BNI. According to OJK, the number of agents registered until December 2017 amounted to 740,121 agents. BTPN, as one of private banks in Indonesia, also has branchless banking services called BTPN Jenius. The Jenius app was first launched to the public in August 2016. It is recorded that the number of active users by the end of 2016 is 90,767 users and 299,195 active users by the end of 2017. However, this number still far below the management target, which is around 1 million active users by the end of 2018. Thus, this study identifies some factors that affect the users' initial trust and intention to use Jenius app.

2.2. Trust Lifecycle and Initial Trust Building

According to Kim (2012), cycles of trust in e-commerce app is divided into two stages: initial trust and ongoing trust, respectively. Initial trust occurs when you first open the app and do registration, but the transaction has not occurred yet at that time. Meanwhile, ongoing trust is a positive belief of a user because of his/her experience based on reliability and integrity of e-vendors [8]. The consumer's initial trust is not based on previous experience of direct interaction with e-commerce vendors. Initial confidence needs to be investigated as it may affect the user to decide whether to make the transaction for the first time or not. Additionally, initial trust becomes an antecedent of the ongoing trust [9]. If the result of the first purchase is satisfactory, then consumer enters a state of ongoing trust toward the e-vendor. Otherwise, consumer has distrust of the e-vendor and may not want to transact with them.

Additionally, McKnight (1998) identified three bases of initial trust sources that lead to trusting beliefs and trusting intention. The first one is disposition to trust. This trust base consists of two concepts: faith in humanity and trusting stance. Faith in humanity is a common assumption that everyone is kind and reliable. From this point of view, there is no reason not to trust anyone. Whereas, trusting stance influence one to be intentionally willing to depend on another, even though others may or may not be trustworthy. Secondly, cognition trust is the base that assumes that trust is built from rapid cognitive cues and first impressions [10]. Next, institution based-trust refers to an individual's perceptions of the institutional environment—in this case, the Internet [39]. Perceptions of the structural characteristics of the Internet, such as security, can influence trusting beliefs and trusting intentions towards a e-vendor [6,11]. According to McKnight, users must get through these three trust bases, so it can lead them to trusting beliefs. It means that user has confidence to trust other party [4]. At this stage, user expects the e-vendor will show competence, benevolence, and integrity [12].

2.3. Conceptual Model Design

Initial trust can be influenced by several aspects, among them are aspects of user characteristics, the characteristics of the app itself, the aspect of the environment where the app and the system are working and the aspects of service providers. From the aspect of individual characteristics, the higher the level of a person's disposition to trust against an unknown second party, the higher the person's
trust in the new system [4–6,12]. Additionally, according to McKnight (2002b), the quality of the website becomes the main predictor of trusting belief. The quality of the websites’ interface can influence ones’ initial impression of the quality of an app that can influence the formation of trust [13]. Moreover, quality of information and quality of customer service (customer support) may influence initial trust in the branchless banking apps context. The quality of information reflects the relevance of information, accuracy and timeliness [3]. Users expect to be able to access mobile banking to get their payment information anytime from anywhere. If the information provided to them is irrelevant, inaccurate and uncertain, the user may doubt whether the service provider has enough ability and virtue to provide high quality services. The quality of customer service also examines in this study due to the nature of branchless banking as a new form of innovation. Consequently, there are still many users who still need more information regarding this. Poor customer service, especially for new technology, can lead to loss of customers [14]. Therefore, we hypothesize:

H1: Disposition to trust has an influence on customer initial trust.
H2: Customer initial trust is positively influenced by information quality
H3: Interface quality has positive influence on customer initial trust.
H4: Customer support quality has positive influence on customer initial trust.

This study also examines initial trust from the environmental aspects. Based on McKnight (2002b), the existence of legal protection and security on the internet commonly called as structural assurance, can affect users’ initial trust towards e-commerce apps. In the context of branchless banking apps, the environment is internet security and regulation governing financial transactions over the internet, also have effect to the user initial trust [12,15]. Moreover, McKnight (1998) explains that the user performs Cognitive Based Trust when establishing initial trust, where an individual categorizes a product based on the same purpose or benefit, based on reputation, and the first assessment of the quality of the product. In the context of branchless banking, where users will not interact directly with the bank, the perceived risk is greater. Therefore, the reputation of service providers greatly affects users’ initial trust [15]. These notions lead to formulating the following hypothesis:

H5: The customer initial trust is significantly affected by structural assurance.
H6: The Bank Reputation as a service provider has an influence of customer initial trust.

In the context of banking financial app, if someone has trust; willing to accept the existing risks, while still doing banking transactions using mobile banking, the person should be able to feel the benefits [8,11]. Also, if someone trust a system, the person will be motivated to feel that the app is easy to use. This may happened because the user does not need to pay more attention to any process that may occur behind the system [16,17]. These arguments lead to form the hypothesis:

H7: Initial trust has an influence on the perception of usefulness.
H8: Initial trust has an influence on ease of use perception.

According to TAM theory (1989), actual system use will happen after the user has behavioral intention to use it. Like any other transaction in general, the establishment of a transaction between two parties require trust on both sides. Based on recent studies, intention to use will occur after the formation of trust [15]. Therefore, the following hypothesis is proposed:

H9: Trust has a positive influence on users’ intention to use.

Additionally, based on TAM theory, the customer may develop interest to use the app if it is useful for them and easy to be used. In the context of branchless banking app, perceived usefulness positively affects usage intention [11]. One of its benefit is the customer do not need to go to branch office while they want to do banking transaction. Therefore, we posit that:

H10: Perception of usefulness has positive influence on intention to use
H11: Perception of ease of use has positive influence on intention to use

From the hypothesis that have been described, the authors established an underlying research model, as shown in Figure 1.
3. Research Methodology
Quantitative approach is taken to test the developed hypotheses. The respondents in this research were Jenius user that completed registration process, from Jakarta. The questionnaires were distributed by two methods: online questionnaires and offline questionnaires. While the online questionnaires were distributed through social media and email, the paper-based questionnaires were directly distributed to the potential respondent in Jakarta area. However, due to time constraint, a convenience sampling was used in this research.

Five-point Likert scales are employed to indicate the respondent’s levels of agreement or disagreement with each statement in the questionnaire. Since the subject of this research is Indonesia, each item on the questionnaire is translated from English to Bahasa Indonesia. To maintain the meaning of original instruments, readability test was conducted before starting the data collecting process. After the data collected, we use partial least square structural equation modeling (PLS-SEM) by utilizing SMartPLS 3.0 to analyse the data [19].

4. Analysis and Results
4.1. Evaluation of measurement model
The first step in analysing the data is to evaluate the appropriateness of measurement model by identifying its reliability, convergent validity, and discriminant validity. First, reliability is examined by calculating Cronbach’s Alpha and composite reliability. Both values should be more than .60 to pass the reliability test. Next, convergent validity is investigated by using AVE (more than .50) and loading factors (more than .60) [19]. Lastly, this study tests the discriminant validity by examining Fornell-Larcker Criterion and cross loading. The result of measurement model evaluation can be seen in Table 1.
4.2. Evaluation of structural model
The second step of evaluation is to check the structural model by utilizing two tests: R\(^2\) test and bootstrapping to do path coefficient test. Bootstrapping process with 1500 subsample are used to follow [16]. A path coefficients will be considered significant if it has value of more than 0.1 [20]. Meanwhile, the R\(^2\) value should be more than 0.75, 0.50-0.75, or 0.25 – 0.5, to be considered having a substantial, moderate, or low prediction, respectively [19]. To evaluate whether a hypothesis is accepted or rejected, one can evaluate the t-statistic value. If will considered accepted if it has value more that 1.96 (for two-tailed hypothesis testing). Otherwise, the hypothesis will be considered as rejected. As shown in Table 2, among 11 hypotheses, 8 are accepted, and the rest are rejected.

### Table 1. Cronbach Alpha, AVE, Composite Reliability, and R\(^2\).

| Variables | CA   | CR   | AVE |
|-----------|------|------|-----|
| DT        | 0.86 | 0.92 | 0.78|
| IU        | 0.95 | 0.97 | 0.91|
| PEOU      | 0.87 | 0.91 | 0.73|

| Variables | R\(^2\) | Category  |
|-----------|--------|-----------|
| IU        | 0.716  | Substantial|
| PEOU      | 0.581  | Moderate  |
| PT        | 0.781  | Substantial|

### Table 2. Path Coefficient And T-Statistics.

| Path coefficients | T-Statistics (|O/STDEV|) | P-Values | Remarks |
|-------------------|--------------|----------|----------|---------|
| DT -> PT          | 0.060        | 1.608    | 0.108    | Rejected|
| PEOU -> IU        | 0.161        | 2.684    | 0.008    | Accepted|
| KA -> PT          | 0.009        | 0.153    | 0.878    | Rejected|
| KC -> PT          | 0.298        | 4.267    | 0        | Accepted|
| KI -> PT          | 0.432        | 5.82     | 0        | Accepted|
| PT -> IU          | 0.21         | 3.789    | 0        | Accepted|
| PT -> PEOU        | 0.762        | 8.781    | 0        | Accepted|
| PT -> PU          | 0.721        | 7.064    | 0        | Accepted|
| PU -> IU          | 0.554        | 9.996    | 0        | Accepted|
| RPL -> PT         | 0.143        | 3.29     | 0.001    | Accepted|
| SA -> PT          | 0.075        | 1.175    | 0.241    | Rejected|

4.3. Discussion and Implication
As presented in the previous section, initial trust influence users’ perceived usefulness towards branchless banking app. This indicates that users’ may realize the benefits of branchless banking app if they have initial trust on it. This is in accordance with the results of the study [1], which states that initial trust can lead to users’ first transaction that may benefit them. Initial trust also shown has affect in perceived ease of use. This is in line with [13], where the higher the trust of a user to a system, the higher the ease of use perceived he/she obtained. This study also successfully confirms that user’s initial trust affects user intention to use an app. This is in line with recent study of [15]. It implies that gaining initial trust is an antecedent of the adoption of branchless banking system. Thus, to increase the possibilities of consumers’ first banking transaction, bank as service provider should attempt not only to enhance branchless banking app systems but also to obtain initial trust from its users.

In addition, perceptions of usefulness were found has most significantly influence to the intention of branchless banking app. This suggests that users’ interest in adopting this app influence by their perception whether the app is useful to them. This is in line with the results of research [21] about new innovations. Innovations that are considered useful may affect users’ interest to use it. It implies that to increase intention to use branchless banking service provider must add more benefit to its app.

This study also found that initial trust is influenced by quality of information and company reputation, as well as quality of customer service. As a form of financial app, branchless banking app
rely on the information as their critical asset since it is very important for users. This is supported by [3] research on online shopping and [11] and [15] on mobile banking. In addition, this study also finds that reputation of service providers affecting users’ initial trusts towards branchless banking apps. This is in accordance with the research [5], [8]. Similar with online shopping apps, branchless banking requires user’s initial trust or a sense of willingness to be vulnerable to start using it.

Additionally, the quality of customer support also positively influences users’ initial trust toward branchless banking app. This is in line with [15] that founds that customer support can develop customer satisfaction. Moreover, in line with [22], the quality of customer support is one of critical factor in mobile banking app. Thus, customer service in the branchless banking app must have enough knowledge to satisfy customer curiosity about its new features and resolve issues that may occur.

5. Conclusion and Future Research
This study found that initial trust positively influences users’ intention to use branchless banking app. Initial trust also affect users’ perceived usefulness and ease of use. Also, user’s initial trust is affected by information quality, customer support quality and bank reputation as service provider in the context of Jenius branchless banking app. Despite the findings, this study has several limitations. First, future research should include other factors that may influence users’ initial trust such as perceived enjoyment. Next, future research should analyze demographic factors such as occupation, age or income as moderating factors in developing users’ initial trust.

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