

## FACTORS INFLUENCING THE ADOPTION OF DIGITAL BANKING IN INDONESIA

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*Abstract. Banking is an industry which handles cash, credit, and other financial transactions. People use it to have savings accounts, deposit wealth, even to borrow money. By using banks, people will have a safe place to deposit their excess cash, and also to have a facility to lend them extra cash. Innovation, technology-led disruption, convergence and data and analytics are reshaping the banking industry. The findings of this study will help the banking industry in developing strategic plans to promote digital banking products and services in future. The author specified on Jenius and Digibank because they are the only banks which are legally listed as digital banks in Indonesia. This research is also limited to the factors why consumers use – or not – digital banking. This research does not focus on how the digital banks compete with conventional banks. The method used in this research is multiple linear regression with the data from questionnaires referencing the previous research on DOI and TAM in the Digital Banking industries to analyse the factors influencing the adoption of digital banking in Indonesia.*

*Keywords: adoption; digital banking; factors.*

### INTRODUCTION

#### Background

Modernization of social life is the transformation from a traditional, rural, agrarian society into a secular, urban, and industrial society. In our lives, this involves the update of technology usage where almost everything changes from a so-called conventional into a more modern method. For example, taxis are easily ordered through a click of an application in our phones, foods are being delivered to our doors by ordering via applications, and others. There are so many conventional methods of things used by people which changes as technology develops, one of them is banking.

Banking is an industry which handles cash, credit, and other financial transactions. People use it to have savings accounts, deposit wealth, even to borrow money. By using banks, people will have a safe place to deposit their excess cash, and also to have a facility to lend them extra cash. Innovation, technology-led disruption, convergence and data and analytics are reshaping the banking industry. These forces are driving dramatic change, and banks must decide if they will lead the change, follow fast or manage for the present.

The banking industry has never seen more disruption—new, innovative challengers and advanced technologies are changing market structure and taking a bite out of revenues. There are the challenges and opportunities created by digital disruption. The next evolution of banking, what Accenture calls the “digitally-native bank,” is happening; this bank will interact with clients seamlessly via a range of channels, from branch to machine-to-machine. On the inside, it will be highly automated and streamlined, yet agile and flexible enough to respond swiftly to opportunities and challenges. (Boehme, 2018).

Banking is entering a post-digital age where the priorities of the last few years are fast becoming the table stakes of the future. (Mcintyre, et al., 2019). The bank branch as we know it, with tellers behind windows and bankers huddled in cubicles with desktop computers, needs reinvention. Most customers now carry a bank in their pockets in the form of a smartphone and only visit an actual branch to get cash or, occasionally, advice. Far from rendering the bank branch obsolete, digital technology holds the key to the branch of the future. Asia’s banking customers are migrating to digital channels in force. The challenge for the region’s banks is to deliver superior digital experiences before competitors do.

Customers across Asia are changing how they bank, growing more open to exploring and using digital channels for their financial needs. This openness to digital channels will reward those banks that can meet customers’ expectations; but it also represents a challenge to incumbent banks—because customers are also expressing a willingness to bank with non-traditional players such as fintechs and nonbanking payments players. Incumbent banks need a response to this changing landscape if they are to remain relevant and sustain growth. (Barquin, et al., 2018)

While in Indonesia, Indonesian consumers are embracing digital banking. To attract them, banks need to take an active approach. Digital technology will continue to transform the banking landscape in Indonesia. McKinsey's latest survey of financial services customers in the country shows considerable growth in the adoption of internet and mobile banking, indicating that digital channels will become increasingly crucial in building loyalty and generating growth for financial institutions.

### **Problem Identification**

According to Podder (20015), banks should understand the reasons customers are adopting the usage of digital banks in order to be successful. But due to the limited number of studies that have been conducted in understanding users' adoption or usage intention, availability of information in this context is found limited for many countries, including Indonesia. Further, relatively little empirical research has been carried out to examine factors influencing users' adoption or use of Digital banking services, particularly in Indonesia. Hence, a need therefore arises to investigate the factors influencing the adoption of digital banking in Indonesia. This research used two commonly applied and empirically supported models of information technology adoption to achieve this objective.

As mentioned earlier, due to limited research on Digital banking in Indonesia, information on factors that have influenced users' behaviour to adopt or use Digital banking is limited. The current study will address this shortcoming. The findings of this study will help the banking industry in developing strategic plans to promote digital banking products and services in future.

#### **Research Questions**

- What are the factors influencing the adoption of digital banking services in Indonesia?

#### **Research Objectives**

This study aims to acknowledge the factors which influence the consumers to adopt the usage of digital banking services in Indonesia. The primary objectives of this study are to:

- Identify the factors which influence the consumers to adopt the usage of digital banking services in Indonesia
- Examine whether TAM framework or DOI framework can explain more variance in intention to adopt or use digital banking

### **Scope and Limitation**

The author researches in the scope of financial industry which is banking, with a technology-based product which is digital bank. In Indonesia, the scope is really small due to the minimum number of digital banks existing in Indonesia. The author specified on Jenius and Digibank because they are the only banks which are legally listed as digital banks in Indonesia. This research is also limited to the factors why consumers use – or not – digital banking. This research does not focus on how the digital banks compete with conventional banks. This research may also have limitations with respect to the generality of the findings. Thus, it may be uncertain whether the findings will generalize to other geographical areas or situations.

## **LITERATURE REVIEW**

### **Financial Technology**

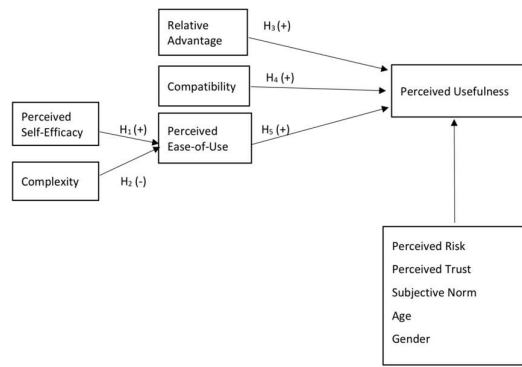
Financial technology (FinTech or fintech) is the new technology and innovation that aims to contend with conventional money ways within the delivery of economic services (Lin, 2016). FinTech is a new industry that uses technology to enhance activities in finance (Schueffel, 2017). The use of smartphones for mobile banking, investing services and cryptocurrency are examples of technologies progressing to create money services additional accessible to the overall public.

### **Digital Banking**

Digital banking is part of the broader context for the move to on-line banking, where banking services are delivered over the net. The shift from traditional to digital banking has been gradual and remains in progress and is brought about by differing degrees of banking service conversion. Digital banking involves high levels of process automation and web-based services and could embrace APIs enabling cross-institutional service composition to deliver banking merchandise and supply transactions. It provides the ability for users to access financial information through desktop, mobile and ATM services (Vaidya, 2018).

### **Conceptual Framwork**

Within the Digital banking adoption context, researchers have indicated various determinants or drivers that have had a positive effect on adoption decisions, where perceived self- Ease of use, compatibility, and relative advantage will have a positive effect of perceived usefulness. While, perceived ease of use derived from positive effect of perceived self-efficacy and negative effect from complexity.



## METHODOLOGY

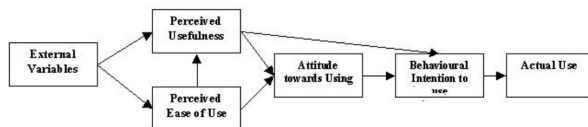
### Data Gathering Tools

The author conducted research by distributing questionnaires to the respondents. The respondents will answer the questionnaire which are constructed and stated in the theoretical framework. The independent variables consist of *Relative Advantage*, *Compatibility*, *Perceived Ease-of-Use*, *Perceived Self-Efficacy*, *Complexity*, *Perceived Risk*, *Perceived Trust*, *Subjective Norm*, *Age*, and *Gender*. The dependent variable is *Perceived Usefulness*.

### Data Analysis

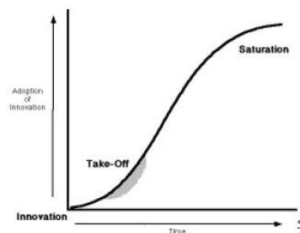
#### Technology Acceptance Model

In summary, the TAM provided a valid method to explain the determinants of technology acceptance, which in turn enables the explanation of user behaviour across a wide scope of end-user information technologies (Davis, 1989). It is however, like all models, subject to limitations. Thus, many empirical studies recommend the integration of TAM with other constructs to cope with rapid changes in IS/IT and improve its explanatory and specificity power (Legris, Ingham, & Collette, 2003) (Cater & Bélanger, 2005) (Iacovou, 2018).



### Diffusion of Innovation

Rogers's (1983) postulated that innovation is more likely to be adopted i) if the relative advantage (the degree to which an innovation is perceived to be better than idea it supersedes) of a technology is evident by its introduction, ii) if it is compatible (the degree to which an innovation is consistent with the existing values) with the individual's life style or organisation, iii) if it is not too complex (the degree to which an innovation is hard to understand and use), iv) if it can be trialled (the degree to which an innovation can be experimented with) before accepting, and v) if it can be observed (the degree to which the result of an innovation is visible) prior to adoption (Pease & Rowe, 2005).



### Multiple Linear Regression

This research will use multiple linear regression to analyze the data. Multiple linear regression attempts to model the relationship between two or more explanatory variables and a response variable by fitting a linear equation to observed data.

Multiple linear regression is used to model the relationship and predict how changes in the value of dependent variable when the independent variables changed. This analysis is used involving two or more independent variables between the dependent variable

(Y) and independent variable (Xn), this method is used to determine the strength of the relationship between independent variables simultaneously to relevant variables and expressed by formula.

The formulation of multiple linear regression is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$$

Where:

Y = dependent variable

X<sub>1</sub> = independent variable 1

X<sub>n</sub> = Independent variable n

$\alpha$  = constant ( Y value if X<sub>1</sub>, X<sub>2</sub>,..., X<sub>n</sub> = 0)

$\beta_1$  = regression coefficient for independent variable 1

$\beta_n$  = regression coefficient for independent variable n

## FINDINGS AND ARGUMENT

This is still an ongoing research with currently 250 respondents and still counting. The respondents are 48.2% between the age of 21 until 23 and 45.5% between the age of 17 until 20, 51.4% is female and 48.6% is male, mainly living in Bandung and Jakarta (45.5% and 42.7% respectively). Majority of the respondent's monthly income is between 2 million Rupiahs and 4 million Rupiahs, which are 46.4% of the respondents, with the main source of income is from their parents.

## CONCLUSIONS

Conclusions could not be concluded due to the research being on progress. But the author might analyze the results based on several classifications, such as the user and non-user's perspectives, age, gender, and monthly income.

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