

## **Measuring Tools for Analyzing Factors Influencing Continuance Intention of Digital Banking Adoption Using UTAUT 2 Model (A Case Study of Jenius in Indonesia)**

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**ABSTRACT:** The development of the Internet in Indonesia is growing rapidly. Along with the growth of internet penetration, the increase in internet banking frequency reached 17 percent, where previously in 2012 is 150 million transactions and 2016 is 406 million transactions. One of the digital banking that is popular in Indonesia is called Jenius. Jenius is a revolutionary banking application that designed and developed by PT. Bank Tabungan Pensiunan Nasional Tbk (BTPN). Since Jenius launched their application, there is 3 million application downloader with 700 hundred thousand of active users in Indonesia. Since the successful of Jenius as a pioneer of digital banking in Indonesia, Jenius needs to realize the importance of the factors which influence the users in using Jenius continuously. This study is proposed a measurement tools with using the Modified Unified Theory of Acceptance and Use of Technology Model from Venkatesh et al., (2012). This study has been added a Trust as a new factor and adapts Price Value into Price Saving Orientation. The measurement tool has been tested by using 30 respondents. The pilot test reveals in measuring the material data which consist of 9 constructs and 45 items proposed that are valid and reliable. This study can be proposed measurement material for further.

**KEY WORD:** Digital Banking, Continuance Intention, Jenius, Adoption, UTAUT 2, Indonesia

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### **I. INTRODUCTION**

The development of the Internet in Indonesia is growing rapidly. In 2017, Indonesian Internet Service Provider Association (*Asosiasi Penyelenggara Jasa Internet Indonesia – APJII*) released the data that the number of internet user in Indonesia is increased by 11% since the previous year (APJII, 2017). According to Arthana and Rukhviyanti (2015), one of the parties that follows this development of information technology is the banking world. Not surprisingly, the banking industry is currently intensively doing business development by combining information and financial technology. The use of information technology can be accessed through various media such as mobile phone, tablets, and can also be used as a means to conduct banking transactions.

Along with the growth of internet penetration, the Otoritas Jasa Keuangan (OJK) stated that e-banking activities in Indonesia grew to 27 percent, in 2012 the customers 13 million and 2016 there are 54 million. The increase in internet banking frequency also reached 17 percent, where previously in 2012 is 150 million transactions and 2016 is 406 million transactions (Primadhyta, 2017). One of the important things is the implementation of digital banking. All transactions are currently directed to using digital technology. Digital banking services are banking services or activities using electronic or digital facilities owned by banks, or through digital media owned by prospective customers and bank customers, carried out independently (Sulistyo, 2018).

One of the digital banking that is popular in Indonesia is called Jenius. Jenius is a revolutionary banking application that designed and developed by PT. Bank Tabungan Pensiunan Nasional Tbk (BTPN), Jenius is Banking Reinvented, which means even though it has a bank function, but Jenius returns all access to its users. With Jenius, the users can do all financial activities in the application, from making a debit card, paying bills, transfer money, saving money, deposit, and allocating funds for financial arrangements. On the other side, Jenius is also different from e-wallet because Jenius can not only be used to payment transactions but also can be used to accept deposits and time deposits with interest of up to 6.5%. Since Jenius launched their application, there is 3 million application downloader with 700 hundred thousand of active users in Indonesia (Jenius, 2018).

Moreover, Jenius won the award as "The Best Digital Bank in Indonesia 2018" from the 2018 Asian Banker for Indonesia Country Awards. According to The Asian Banker, three interesting points from Jenius are product innovations that strengthen the consumer experience using Jenius; collaboration with several business partners who offer added value to users. Jenius as a savings product in a smartphone owned by PT Bank

Tabungan Pensiunan Nasional (BTPN), is included in the 2017 Ranking Top 50 Digital Only Banks released by Financial IT Magazine (Apriyani, 2017).

Since the success of Jenius as a pioneer of digital banking in Indonesia, not covering the possibility in upgrading and improving the future of Jenius. Jenius will be able to gain more customers in Indonesia. Therefore, the growth in digital banking can be maintained. Jenius needs to realize the importance of the factors which influence the users in using Jenius continuously. Jenius will understand more what user's preferences are to keep continuously adopt Jenius. As a result, it will be helpful in improving the service of the company and innovating in digital banking issue in Indonesia.

## **II. LITERATURE REVIEW**

### **Unified Theory of Acceptance and Use of Technology (UTAUT) 2 Model**

The Author use and modified the theory of UTAUT2 Model by Venkatesh et al., (2012) in this research to developed because UTAUT2 Model is the latest theory in technology acceptance and also based on the eight previous technology acceptance theories; the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology of Acceptance Model (TAM), Combined TAM-TPB (C-TAM-TPB), Motivational Model (MM), Model of Personal Computer Utilization (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT). Venkatesh et al. (2003) stated those eight models has empirically test based on longitudinally models. Comparing to the previous UTAUT, the UTAUT2 Model has result improvement in the variance explained in the behavioral intention (56 percent to 74 percent) and technology use (40 percent to 52 percent). The difference between UTAUT Model and UTAUT2 Model is UTAUT Model is for organizational context, and UTAUT2 Model is the technology acceptance theory in the consumer context, that is suitable for this research which is Jenius continuance intention adoption in Indonesia. There are so many previous researchers that used UTAUT2 Model in explaining the study. For example, Alalwan et al., (2017) about the factor influencing adoption of Mobile banking by Jordanian bank customers: extending UTAUT2 with trust, Kwateng (2017) the acceptance and use of mobile banking: an application of UTAUT2, Indrawati (2014) about a prediction the behavioral intention toward website and a research of Xu (2014) about user's continued use of online games.

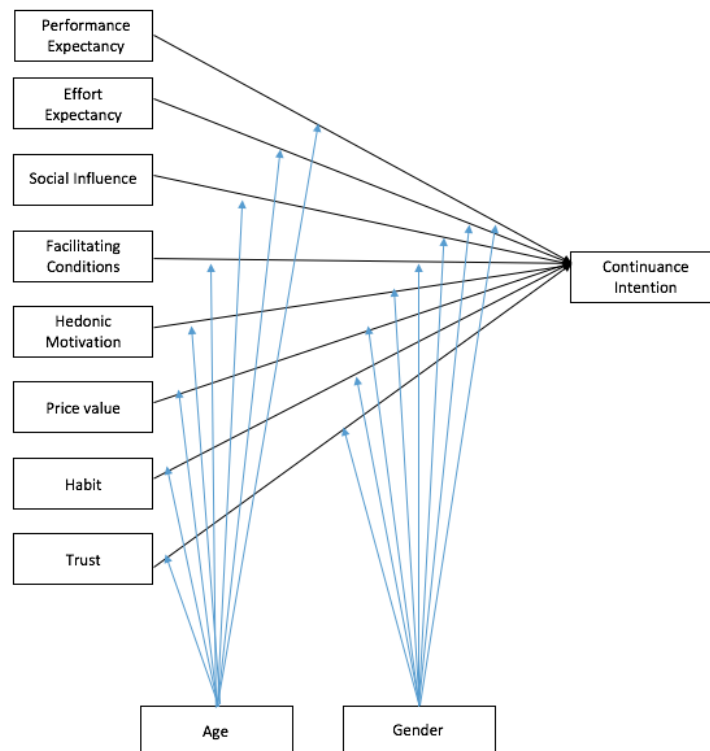
Based on the need of the research, this research framework modified the UTAUT2 Model. This research adapts Behavior Intention into Continuance Intention since there are so many users using Jenius as a digital bank. The author wants to analyze the factors influencing Jenius users in adopting Jenius continuously. On the other hand, this research does not include Use Behavior variables because the author only wants to identify the continuance intention of Jenius users. Therefore, the respondent of this research are the users who already use Jenius for at least three times to get more accurate data, and the aims are to find out whether the existing customers want to continue using Jenius. The previous research about continuance intention has been studied by Xu (2014) is about Understanding Users' Continued Use of Online Games: An application of UTAUT2 in Social Network Games.

The author also adds a Trust variable as extends the UTAUT2 Model. Additional Trust as a variable based on the author conducted preliminary data gathering and conducted literature review related to a Trust variable. So, the author's opinion and the result of data gathering is a Trust factor has influenced the users in adopting Jenius. Based on Mcknight et al., (2002) in Escobar et al., (2014), *"In the online transaction, or e-commerce, it is more difficult for consumers to know whether online sellers will meet their commitments; and one of these commitments is to protect the privacy of consumers' personal information."*

Another previous research that used a Trust variable and has been proven, such things; Mobile-banking adoption: empirical evidence from the banking sector in Pakistan by Farah et al., (2017) and factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust by Alalwan et al., (2017). Gefen et al., (2003) stated in Alalwan et al., (2017) *"Definition of trust, customer trust in Mobile banking can be operationalized as the accumulation of customer beliefs of integrity benevolence and ability that could enhance customer willingness to depend on Mobile banking to attain the financial transactions."*

Therefore, Age, Gender and Experience are three moderating variables in UTAUT2 Model. But, the author only uses two moderating variables which are Age and Gender. Experience variable is not used because it takes a longitudinal study which is an observational research method in which data is gathered for the same subjects repeatedly over a period. It means the author should undertake periodical data sampling method, and in this study, the author not conduct the experience. Thus, this modified UTAUT2 Model is consists of 8 independent variables, 1 dependent variables and 2 moderating variables as shown in Figure 1.

**Figure 1: Conceptual Model Adapted from UTAUT2 Model  
(Venkatesh et al., 2012)**



In this study, the price value adapted into Price Saving Orientation variable. According to Jensen (2012) in Escobar et al., (2014) “...previous studies have incorporated the variable “price saving” for those technologies, such as purchasing through a website, whose use does not represent a monetary cost for the consumer and, in turn, its use enables a lower price to be obtained”. In this study, Jenius usage offering lower price with many promotions, such as transfer and administration fee. Moreover, the author includes Price Saving Orientation rather than the Price Value construct as the original UTAUT2 Model.

Based on Venkatesh et al., (2003 and 2012) there are the original variable adapted in this study, and the definitions are: Performance Expectancy variable in this research is defined as the degree to which a person believes that using Jenius would provide benefits in digital banking. Effort Expectancy in this research defined as the degree of ease associated with the use of Jenius. Next, Social Influence is the extent to which consumers of social networks, such as things; family, friends while using Jenius. Facilitating Condition is defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of Jenius. Moreover, Hedonic Motivation in this research is defined as the degree of fun or pleasure derived from using Jenius with features such as Jenius Promo, discounts, and vouchers. Price Saving Orientation is defined as the benefit in using Jenius. Habit is explained as the extent to which people tend to use Jenius automatically because of learning. Therefore, Trust is defined as the dimension of a business relationship that determines the level to which each party feels they can rely on the integrity of the promise offered by Jenius. Continuance Intention is defined as the degree to which a person has formulated plans to continuously perform some specified future behaviour.

### III. MEASUREMENT MATERIAL

Measurement material that valid and reliable is needed in this study to test the proposed model. First, the author conducted a content validity. Content validity means the author check the questionnaire items based on the previous studies and the items that adopted for making questionnaires items based on what the research needs. The author made some modification for this research. Based on Indrawati (2017: 194), the researcher adopted and modified the items from the previous studies that have been published in national or international journals with accreditations and good reputation to discuss and get the questionnaire items to fulfill the items that have been chosen by the experts in the content validity. Moreover, in this research, the content validity has been completed by adopted and modified the questionnaire items from the previous research where the items is to measure the perception level of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Saving Orientation, Habit, Trust and Continuance Intention from

respondent of Jenius in Indonesia. Then, to test the items on this research, the author met four experts in the field of marketing and Information Technology (IT). The experts suggested to the author for questionnaire improvement to be more readable. The author has been requested the suggestions to the experts in the field of marketing and Information Technology (IT) for the testing the questionnaire items.

Next, the author getting approvals from the experts and then the validity test is needed to make sure if the questionnaire does not make the respondent confused. After that, the author conducted the readability test to know if the questionnaires are easy to understand and the respondent could fill it without confusion. Therefore, the author conducted reliability test to the respondents, reliability test is needed to ensure the consistency and stability of the measurement in various items of the questionnaire. The items of each variable is shown in Table 1.

**Table 1: Questionnaire Items**

<b>Item Code</b>	<b>Items of Performance Expectancy</b>
PE1	I find Jenius if useful in my daily banking
PE2	I can save time when I use Jenius in the banking process
PE3	I can use Jenius for banking activity in anyplace
PE4	Using Jenius increases my productivity in my daily banking
PE5	Using Jenius would save my time
<b>Item Code</b>	<b>Items of Effort Expectancy</b>
EE1	Learning how to use Jenius is easy for me
EE2	It does not take a long time to learn to use Jenius
EE3	I find Jenius easy to use
EE4	Interaction with Jenius is easy for me
EE5	It is easy for me to become skillful at using Jenius
<b>Item Code</b>	<b>Items of Social Influence</b>
SI1	People who are important to me think that I should use Jenius for my banking activities
SI2	People who influence my behavior think that I should use Jenius for my banking activities
SI3	People whose opinions that I value prefer that I use Jenius
SI4	Most of the people around me are using Jenius
SI5	People who are close to me are using Jenius
<b>Item Code</b>	<b>Items of Facilitating Conditions</b>
FC1	I have the resources necessary to use Jenius
FC2	I have the knowledge necessary to use Jenius
FC3	I can get help from others when I have difficulties using Jenius
FC4	To get the information about the use of Jenius is very easy
<b>Item Code</b>	<b>Items of Hedonic Motivation</b>
HM1	It is fun for me to use Jenius
HM2	Features in Jenius (EveryYay program) entertain me
HM3	Features in Jenius (Discounts) entertain me
HM4	Features in Jenius (Vouchers) entertain me
HM5	Using Jenius is enjoyable
HM6	I feel excited in using Jenius
<b>Item Code</b>	<b>Items of Price Saving Orientation</b>
PSO1	I can save money by using Jenius
PSO2	Jenius offers better value of money
PSO3	I like to search for cheap deals by using Jenius
PSO4	Jenius offers valuable promotion for me
PSO5	Jenius offers free admin fees for me
<b>Item Code</b>	<b>Items of Habit</b>
H1	Using Jenius has become a habit for me
H2	Using Jenius is something that I do without thinking
H3	Using Jenius is a part of my daily banking activities
H4	I am addicted to using Jenius for my daily banking activities
H5	I must use Jenius
<b>Item Code</b>	<b>Items of Trust</b>
T1	I believe that Jenius is trustworthy
T2	I trust Jenius
T3	I do not doubt the honesty of Jenius
T4	Even if not monitored, I would trust Jenius to do the job right
T5	Jenius has the ability to fulfil its task
<b>Item Code</b>	<b>Items of Continuance Intention</b>
CI1	I intend to continue using Jenius
CI2	My intentions are to continue using Jenius than using any alternatives banking account
CI3	I intend to increase my use of Jenius in the future
CI4	I will keep using Jenius when I need banking transactions
CI5	I will strongly recommend that other use Jenius

**IV. METHOD AND RESULT**

The authors conducted the first survey with pilot study to make sure and guarantee that the questionnaire items fulfil the validity construct. The result of the data can be used for the validity and reliability test. The author has 30 respondents as a pilot test for the preliminary data. The author using IBM SPSS 23 in processed the data. According to Friedenberg and Kaplan in Indrawati (2015: 149), suggested that the correlation coefficient is  $\geq 0.3$  to be valid. The author doing the validity test to 30 respondents and the result as presented in Table 2 that the items is valid with CITC above 0.3. Based on Indrawati (2015: 155), to test the reliability of the items, the most widely used is Cronbach-Alpha technique. If the coefficient of Cronbach-Alpha  $\geq 0.70$  means the questionnaire has a good reliability. (Hair et al., 2010; Kaplan and Saccuzzo 1993 : 126; Nunnally & Bernstein, 1994; Pedhazur & Pedhazur, 1991). The result of pilot test presented in Table 2.

**Table 2: Pilot Test Result**

Item Codes	CITC	CA	Item Codes	CITC	CA
PE1	0.444	0.742	PSO1	0.567	0.802
PE2	0.323		PSO2	0.689	
PE3	0.535		PSO3	0.679	
PE4	0.714		PSO4	0.552	
PE5	0.526		PSO5	0.490	
EE1	0.535	0.800	H1	0.881	0.946
EE2	0.504		H2	0.787	
EE3	0.711		H3	0.927	
EE4	0.582		H4	0.867	
EE5	0.620		H5	0.814	
SI1	0.814	0.936	T1	0.848	0.941
SI2	0.876		T2	0.916	
SI3	0.885		T3	0.809	
SI4	0.671		T4	0.899	
SI5	0.916		T5	0.734	
FC1	0.438	0.767	CI1	0.774	0.916
FC2	0.634		CI2	0.797	
FC3	0.634		CI3	0.885	
FC4	0.613		CI4	0.742	
HM1	0.787	0.875	CI5	0.740	
HM2	0.845				
HM3	0.713				
HM4	0.606				
HM5	0.601				
HM6	0.555				

As shown in Table 2, the pilot test reveals in measuring the material data which consist of 9 constructs and 45 items proposed that are valid and reliable.

**V. CONCLUSION**

In this study, the measurement material proposed has been tested by using 30 respondents who are using Jenius for at least 3 times. The users of Jenius has been using and repeating. The pilot test reveals in measuring the material data which consist of 9 constructs and 45 items proposed that are valid and reliable. This study can be proposed measurement material for further.

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