

The Effect of Covid-19 Pandemic on the Adoption of Internet Banking in Indonesia: Islamic Bank and Conventional Bank

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Abstract

This study aims to examine the effect of perceived usefulness (PU), perceived ease of use (PEU), trust (TR), subjective norm (SN), and attitude (AT) on customer's Intention to Adopt Internet Banking (IAIB) at Islamic banks and conventional banks before and during the Covid-19 pandemic in Indonesia. The research model is based on the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM). This study involves 213 respondents for Islamic banks and 410 respondents for conventional banks from 25 provinces in Indonesia. Data was analyzed using partial least square (PLS) regression with the Structural Equation Model (SEM) method. The result of data analysis confirms several hypotheses taken from the literature. The results before the Covid-19 pandemic showed that AT and SN influence IAIB in Islamic banks. Whereas in conventional banks, AT, PU, SN, and TR influence IAIB. While during the Covid-19 pandemic, it shows that the AT, PU, IB, SN, and customer TR influence IAIB in Islamic banks and conventional banks. From the analysis, it was found that the PEU variable did not have a significant effect on the intention of customers of Islamic banks and conventional banks to use Internet banking.

Keywords: Internet Banking, Islamic Bank, Conventional Bank, Technology Acceptance Model, Theory Planned Behavior

JEL Classification Code: M15, M31, M38

1. Introduction

Nowadays banking services are required to be more flexible, quicker, and easier along with the tremendous technology in the globalization era. Internet Banking (IB) has become the most profitable among other e-commerce applications. All banks have introduced IB to improve customer service and growth of information reduce costs (Rahi & Abd-Ghani, 2019). Besides, IB will not only benefit banks but will also fulfill customer needs (Rahi &

Abd-Ghani, 2016; Shahzad et al., 2017). The tremendous growth of the Internet is changing how a business stays connected with its customers, including the banking business (Aldás-Manzano et al., 2009). The survival of the financial industry, especially banking, will greatly depend on the ability of Internet adaptation and the progress of technology. One form of technology adaptation in the banking industry is IB and mobile banking which offer various benefits (Sitorus et al., 2017).

Adaptation of banking technology must at least offer services that support customer activities, offer relevant markets, provide benefits for customers, as well as accessible and easy to use (Tabash et al., 2019; Yudha et al., 2015). Customers are encouraged to use Internet services because there is no need to have a physical meeting with the bank officers in person and no need to deal with other customers. The same thing was expressed by Kaleem & Ahmad (2010) in their research which found that IB was used to reduce inconvenience, transaction costs, and time consumed. Because of the ease of obtaining information and many other benefits, the use of an online financial system is increasing (Lech, 2012). By replacing employee functions and physical facilities with information technology, banks do not need to have branch offices to reduce operating and fixed costs.

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Although IB offers various facilities, banking in Indonesia still faces a problem in form of a low adoption rate (Sitorus et al., 2017). Some research results show that the perception of ease of use, security, and benefit contribute a significant influence on the adoption of IB in Indonesia (Asni et al., 2019; Ronny, 2018). The successful use of IB depends on how the customer understands the system. Thus, banks need to find out how customers accept IB services to help find strategic plans and improve the markets (Fatimah & Suyanto, 2016). However, banks still have problems related to the low willingness of customers to adopt IB regardless of its benefits (Rahi & Abd-Ghani, 2019). Besides, banks are required to provide high-quality Internet facilities to attract and retain customers (Makanyeza & Chikazhe, 2017; Sharma et al., 2020).

2. Literatur Review

2.1. Theoretical Background

The Technology Acceptance Model (TAM) is the most-adopted theory to examine the individual's belief in the acceptance and the use of technology. This is because this theory focuses on the use of information systems originated from the research to validate the acceptance of IBM workers toward the word processing technology conducted by (Davis et al., 1989). In general, TAM has been used in various cross-sector studies including personal computers, telemedicine technology, the World Wide Web (www), and e-commerce. Specifically, in the context of banking technology, several studies such as Abbad (2013) and Martins et al. (2014) have applied TAM to examine the acceptance and the use of ATMs, mobile banking, and IB.

In a study that applied the Theory of Planned Behavior (TPB), Bhatt (2011) examined customer trust (TR) in IB services and found that customer intention to adopt IB was influenced by perceived behavioral control, customer attitude (AT), and subjective norm (SN). By modifying TAM, Kesharwani & Tripathy (2012) proved that self-efficacy and perceived risk contribute a significant impact on the behavior of using IB. Following that, Varaprasad et al. (2013) also add several variables such as perceived risk, relative advantage, and attention. It is found that perceived usefulness (PU), perceived ease of use (PEU), perceived risk, and relative advantage are important factors in determining IB adoption. With the TAM modification theory, Kesharwani & Tripathy (2012) also found that PEU, PU, perceived risk, and social influence have a significant positive impact on customer intention in adopting IB services (Kalaierasi & Srividya, 2013).

The purpose of this study is to determine the variables that influence the use of IB in Islamic and conventional banks before and during the Covid-19 pandemic in Indonesia. This study also modified TAM and perceived behavioral control (PBC) by adding several variables and considering the compatibility with

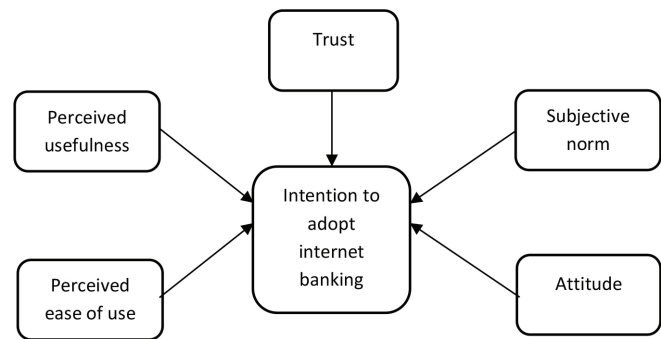


Figure 1: Research Model

the problems that occur in Islamic and conventional banks. Besides, this study also considers changes in behavior that occurred before and during the Covid-19 pandemic that began in February 2020 in Indonesia. Figure 1 shows the research model proposed in this study which consists of five constructs such as PU, PEU, TR, SN, and AT. The combination of TAM and PBC is expected to describe the customer intention of Islamic and conventional banks in the adoption of IB.

2.2. Perceived Usefulness (PU)

PU can be defined as the extent to which customers believe that the use of IB service will improve their banking performance or activities (Bashir & Madhavaiah, 2014). Many researchers in the field of information systems (IS) showed the positive impact of PU on AT and intention to adopt IB using TAM (Heryani et al., 2020). Besides, some previous studies on IB have provided empirical evidence that PU has a significant positive effect on AT and intention (Kaur & Malik, 2019; Vukovic et al., 2019). Previous research has also proven that PU could mediate the effect of external factors on AT and intention. Hence, a customer will be more inclined to adopt IB when one considers the use of IB to bring benefits. Based on this review, the proposed hypothesis is as follows:

H1: Perceived usefulness has a significant influence on customer interest to adopt IB

2.3. Perceived Ease of Use (PEU)

PEU can be defined as the level of customer confidence that the use of IB service is easy (Baber, 2019; Davis et al., 1989). PEU is the main factor influencing customer intention to adopt IB. Several existing literature reveals that PEU affects an individual's intention to use IB (Davis et al., 1989; Kaur & Malik, 2019). Several studies on the use of IB have found that PEU influences customer intention to use IB (Giovani et al., 2012; Vukovic et al., 2019).

Besides, several studies have found that PEU of IB will enhance customer intention to use various transactions (Abbad, 2013). Customers find it easy to use IB if the IB menu is uncomplicated, easy to remember, and based on the customer needs (Alalwan et al., 2018; Kesharwani & Tripathy, 2012). Based on the previous literature, the proposed hypothesis is as follows:

H2: Perceived ease of use has a significant influence on customer interest to adopt IB

2.4. Trust (TR)

TR is defined as the customer's confidence in the ability of IB services to provide services as expected (Bashir & Madhavaiah, 2014). TR is an important factor in providing confidence to fulfill customer needs (Morgan & Hunt, 1994; Usman, 2015). TR holds a crucial role in minimizing risk in the case of conflict between banks and customers (Gefen et al., 2015). Risk and TR are two elements that could not be separated in the decision-making process (Aldás-Manzano et al., 2009; Kesharwani & Tripathy, 2012). Further, bad technology will increase the risk that causes a decrease in the level of satisfaction and willingness of customers to use IB (Yuan et al., 2016). From this explanation, the hypothesis can be proposed as follows:

H3: Trust has a significant influence on customer interest to adopt IB

2.5. Subjective Norm (SN)

SN is referred to as the normative belief of the social environment that motivates an individual to perform a certain behavior. This aspect specifically applies to social pressures which come from important people considered by an individual (Fishbein & Ajzen, 1975). Chan (2001) found that social pressure plays a crucial role in describing the adoption of the Internet which has been a widely discussed topic. Some researchers emphasize that SN is a factor that needs to be taken into account for influencing individual AT (Taib et al., 2008). In the study of Liao et al. (2007), they found that SN affects the customer's intention to adopt IB. On the other hand, several researchers such as Lada et al., (2009) found a direct effect of SN on the intention to consume halal products. Therefore, the hypothesis can be formulated as follows:

H4: Subjective norm has a significant influence on customer interest to adopt IB

2.6. Attitude (AT)

AT could be described as a tendency to consistently respond in connection with a particular object (Fishbein &

Ajzen, 1975). In this study, AT could be described as positive or negative feelings of customers in using IB services. Fishbein & Ajzen (1975) is the earliest study that introduced AT in TRA which was then followed by Davis (1989), who stated that AT is a construct in TAM which ultimately affects individual intention. AT becomes an inseparable factor in the context of IB because the AT is formed by the customer's belief in risk and security in using IB. The previous researches conducted by Chiou & Shen (2012) and Kaur & Malik (2019) provide evidence that customer AT influences the intention to adopt IB services. Based on the above explanation, the proposed hypothesis is as follows:

H5: Attitude has a significant influence on customer interest to adopt IB.

3. Research Method

3.1. Procedure and Sample

For data collection, this study distributed a structured questionnaire comprising three parts, to IB users in Indonesia. The first part is designed to gather data pertaining to the respondent's demographic background which are gender, religion, age, education, occupation, marital status, income, and bank account. The second part of the questionnaire asked the respondent's interest in using IB before the Covid-19 pandemic. The third part of the questionnaire asked the respondent's interest in using IB during the Covid-19 pandemic.

The second and the third part is designed to be the measurement instrument adapted from the previous literature related to the model of technology utilization and their development in the context of using several technologies in general and IB technology in particular. A list of 23 questions in 6 constructs is included in the conceptual model including PU, the PEU, customer TR, SN, and customer AT. All items are measured on a Likert-type scale ranging from "1" (strongly disagree) to "5" (strongly agree).

Before commencing the core data collection process, a pilot test was conducted to test the instrument items on a sample of 50 respondents, to measure the required time to fill out the questionnaire and to obtain a comprehensive understanding of the respondents' difficulties in answering each question. The result of this pilot test caused some changes to a few words to make it easier for respondents to answer each construct's question.

The analysis is performed using a Partial Least Square-Structural Equation Model (PLS-SEM) technique by SmartPLS software (Ringle et al., 2015). The advantage of this technique is that it could use abnormal data and explain the differences between the target constructs. PLS-SEM is a two-step process in which the first measurement model

is analyzed to check the reliability and validity of the data. Second, an assessment of the structural model is carried out for path analysis and hypothesis testing.

3.2. Sample Descriptive

The respondents consist of 213 Islamic bank customers and 410 Conventional bank customers in 34 Provinces in Indonesia. Islamic banks' customers are 39.44% of men and 60.56% of women, in which 78.87% of them are 18-25 years old. Meanwhile, for the monthly expenditure, 66.67% of the respondents are spending less than IDR 2,500,000 and 23.00% of them are spending IDR 2,600,000 - IDR 5,000,000. For the educational background, 68.08% of the respondents are having a high school degree and

23.94% of them are having an undergraduate degree. For the occupation, the majority of respondents (74.18 percent) are students and 14.08% of them are private employees.

Meanwhile, conventional bank respondents consist of 166 men (40.49%) and 244 women (59.51%), while 78.29% of them are 18-25 years old and 10.24% of them are 26-35 years old. For the monthly expenditure, 63.66% of the respondents are spending less than IDR 2,500,000 and 25.66% of them are spending IDR 2,600,000 - IDR 5,000,000. For the educational background, 68.29% of the respondents are having a high school degree and 23.17% of them are having an undergraduate degree. For the occupation, the majority of respondents (66.10%) are students and 18.54% of them are private employees.

Table 1: Demographic Characteristics of the Sample

Demography	Notes	Islamic Bank (213 Respondents)		Conventional Bank (410 Respondents)	
		N	%	N	%
Gender	Man	84	39.44	166	40.49
	Woman	129	60.56	244	59.51
Age	18-25 years old	168	78.87	321	78.29
	26-35 years old	22	10.33	42	10.24
	36-45 years old	13	6.10	18	4.39
	46-55 years old	10	4.69	25	6.10
Expense	<Rp 2.500.000-	142	66.67	261	63.66
	Rp 2.600.000 - Rp 5.000.000	49	23.00	104	25.37
	Rp 5.100.000 - Rp 7.500.000	9	4.23	19	4.63
	Rp 7.600.000 - Rp 10.000.000	3	1.41	8	1.95
	Rp 10.100.000 - Rp 12.500.000	2	0.94	5	1.22
	>Rp 12.600.000	9	4.23	13	3.17
Latest Education	Senior High School and equivalent	145	68.08	280	68.29
	Diploma (D3)	3	1.41	15	3.66
	Bachelor(S1)	51	23.94	95	23.17
	Master (S2)	12	5.63	20	4.88
	Doctor (S3)	2	0.94	0	0.00
Occupation	Student	158	74.18	271	66.10
	Civil Officers	11	5.16	29	7.07
	Private Employee	30	14.08	76	18.54
	Entrepreneur	7	3.29	21	5.12
	Housewife	7	3.29	13	3.17

4. Results

4.1. Confirmatory Factor Analysis, Reliability, and Validity

The loading factor of all constructs is above 0.6 which shows adequate convergent validity among all latent

variables (Chin, 1998). In Table 2, the result of loading factors of Islamic and conventional banks before and during the Covid-19 pandemic shows that the perceived risk was below 0.6. Although some other literature explains that the lowest loading factor that can be accepted is 0.40, a high loading factor indicates a high data variations which will make a strong contribution to explain the latent construction.

Table 2: Loading Factor Before and During Covid-19 Pandemic

Construct	Item	Before Covid 19		During Covid 19	
		ISB	CB	ISB	CB
Perceived Usefulness (PU)	The use of IB improves the functions of my banking activity	0.873	0.838	0.92	0.85
	IB enables me to manage my banking activity more efficiently	0.912	0.862	0.866	0.872
	IB enables me to do my banking activity comfortably	0.926	0.909	0.928	0.923
	IB enables me to do my banking activity quickly	0.892	0.837	0.913	0.912
Perceived Ease of Use (PEU)	It is very easy to use IB	0.898	0.86	0.896	0.902
	Learning to use IB is easy	0.935	0.896	0.944	0.891
	Instruction provided on the IB website is clear and understandable	0.918	0.886	0.903	0.915
	I feel that it is easy to remember how to use IB	0.935	0.893	0.928	0.92
Trust (TR)	I believe that it is always safe to transfer money using IB	0.85	0.857	0.89	0.861
	I believe I can count on transferring money using IB	0.912	0.856	0.875	0.889
	My bank immediately notifies me if there are problems with my transaction	0.774	0.706	0.807	0.751
	I believe that my transaction through IB will always be transparent	0.857	0.825	0.851	0.894
Subjective Norm (SN)	Most of the people who are important to me would think that I should use IB	0.867	0.895	0.925	0.941
	People who influenced me would think that I should use IB	0.892	0.874	0.935	0.951
	People whose opinions I value would think I should use IB	0.894	0.881	0.93	0.94
Attitude (AT)	Using IB service is a good decision	0.931	0.912	0.933	0.924
	Using IB service is a wise decision	0.93	0.885	0.934	0.935
	Using IB service is a positive move	0.915	0.909	0.953	0.932
	I like to use IB service	0.869	0.878	0.889	0.884
Intention to Adopt Internet Banking (IAIB)	I intend to enhance the use of my IB service in the future	0.893	0.869	0.915	0.899
	I hope my transaction through IB will be enhanced in the future	0.858	0.845	0.902	0.884
	I will encourage my friends and family to use IB service	0.904	0.887	0.9	0.911
	I would highly recommend others to use IB	0.904	0.848	0.923	0.91

Note: ISB, Islamic bank; CB, Conventional Bank.

Meanwhile, internal consistency between items or reliability is measured using Cronbach's α , rho A and Composite Reliability. Any value of Cronbach's α , rho A and Composite Reliability which are higher than 0.7 is considered to have good internal consistency (Hair et al., 1994). From Table 3, it shows that the Cronbach's α value for all items is more than

0.7 or can be categorized as reliable. Meanwhile, the values of rho A and composite reliability are also higher than 0.7, which means that all constructs of Islamic and conventional banks before and during the Covid pandemic are reliable. Meanwhile, the Average Variance Extracted (AVE) for a construct must be higher than 0.50 (Fornell & Larcker, 1981).

Table 3: Cronbach's Alpha, Composite Reliability and Average Variable Extracted (AVE)

	CA	rho_A	CR	AVE
ISB before Covid-19 pandemic				
AT	0.932	0.933	0.952	0.831
IAIB	0.913	0.914	0.939	0.792
PEU	0.941	0.941	0.958	0.849
PU	0.923	0.925	0.945	0.812
SN	0.861	0.863	0.915	0.782
TR	0.871	0.878	0.912	0.722
CB before Covid-19 pandemic				
AT	0.918	0.920	0.942	0.803
IAIB	0.885	0.886	0.921	0.744
PEU	0.907	0.907	0.935	0.782
PU	0.884	0.887	0.920	0.743
SN	0.860	0.863	0.914	0.780
TR	0.828	0.840	0.886	0.662
ISB during Covid-19 pandemic				
AT	0.946	0.947	0.961	0.861
IAIB	0.931	0.932	0.951	0.828
PEU	0.938	0.940	0.955	0.843
PU	0.928	0.931	0.949	0.823
SN	0.922	0.923	0.951	0.865
TR	0.878	0.879	0.916	0.733
CB during Covid-19 pandemic				
AT	0.938	0.939	0.956	0.844
IAIB	0.923	0.924	0.945	0.812
PEU	0.928	0.931	0.949	0.823
PU	0.912	0.915	0.938	0.792
SN	0.939	0.941	0.961	0.892
TR	0.871	0.882	0.913	0.724

Note: CA, Cronbach's Alpha; CR, Composite Reliability; AVE, Average Variance Extracted.

4.2. Analysis of Model Structure and Hypothesis Testing

After fulfilling the reliability and validity requirements, the data is tested to determine the model fit. To test the goodness of fit statistics of the model, the most commonly used measurements are SRMR, d_{ULS} , d_G , Chi-Square, and Normative Fit Index (NFI). Standardized Root Mean Square Residual (SRMR) is used as a measure of goodness of fit to avoid the model specification errors (Henseler et al., 2014). SRMR is defined as the difference between observed and expected correlations in the model and it is used as an absolute measure of the matching criteria. The model is considered goodness of fit when the SRMR value is less than 0.10 or 0.08 (Hu & Bentler, 1998). From the test results, it is found that the SRMR value for Islamic banks before Covid-19 is 0.047, and for conventional banks is 0.049. Meanwhile, during the Covid-19 pandemic, it is found that the SRMR value is 0.050 for Islamic banks and 0.045 for conventional banks. As the value is less than 0.08, it can be said that the model is considered suitable or model fit.

Model fit d_{ULS} (ie, the squared Euclidean distance) and d_G (ie, the geodesic distance) are bootstrap-based inferential statistics testing to measure the difference between the empirical covariance matrix and covariance matrix implied in the composite factor model (Dijkstra & Henseler, 2015). The criteria for the model fit of d_{ULS} and d_G are that the differences between the correlation matrix implied by the model and the empirical correlation matrix must be insignificant ($p > 0.05$). Conversely, if the difference is significant ($p < 0.05$), the model fit is not fulfilled. From the measurement, it was concluded that the model fit was fulfilled because the values of d_{ULS} and d_G of Islamic and conventional banks before Covid and during Covid are higher than 0.05 or not significant. The test results before Covid-19 show $d_{ULS} = 0.612$; $d_G = 0.518$ for Islamic banks and $d_{ULS} = 0.655$; $d_G = 0.366$ for conventional banks. Whereas during Covid-19, the test results show $d_{ULS} = 0.687$; $d_G = 0.677$ for Islamic banks and $d_{ULS} = 0.570$; $d_G = 0.429$ for conventional banks.

Normed Fit Index (NFI) is obtained by deducting 1 with the value of χ^2 from the proposed model divided by the value of χ^2 from the zero model. The NFI value ranges

from 0 to 1. The model can be said to be fit when the NFI value approaches the value of 1 (Lomoller, 1989). From Table 4, it can be seen that the NFI values of Islamic and conventional banks before and during Covid-19 are close to 1 to have an acceptable model fit. For Islamic banks, the NFI values before and during Covid-19 are 0.868 and 0.854 respectively. For conventional banks, the NFI values before and during Covid-19 are 0.871 and 0.892.

The next model fit is adjusted R^2 which illustrates the ability of explanatory variables in measuring the customer intention to adopt IB. The value of R^2 for Islamic banks before Covid is 0, 729 which means that the ability of explanatory variables in measuring customer intention to adopt IB is 72.9%. Meanwhile, the value of R^2 of Islamic banks during Covid is 0.798 which means that the ability of explanatory variables in explaining customer intention to adopt IB is 79.8%. Meanwhile, for conventional banks, the value of R^2 before Covid is 0.614 which means that the ability of explanatory variables in explaining the customer intention to adopt IB is 61.4%. For the conventional bank, the value of R^2 during Covid-19 is 0.689 which means that the ability of explanatory variables in explaining customer intention to adopt IB is 68.9%.

From the results of hypothesis testing for Islamic banks before the Covid-19 pandemic, it shows that AT ($\beta = 0.494$, $t\text{-stat} = 7.164$) and SN ($\beta = 0.223$, $t\text{-stat} = 3,730$) have an effect on the customer intention to adopt IB, while PU, perceived risk, PEU and TR have no effect. Meanwhile for conventional banks before the Covid-19 pandemic, it shows that AT, ($\beta = 0.516$, $t\text{-stat} = 8,664$), PU ($\beta = 0.139$, $t\text{-stat} = 2.137$), SN ($\beta = 0.167$, $t\text{-stat} = 3,647$) and TR ($\beta = 0,120$, $t\text{-stat} = 2,058$) have an effect on the customer intention to adopt IB, while PEU and perceived risk have no effect.

From the results of hypothesis testing for Islamic banks during the Covid-19 pandemic, it shows that ($\beta = 0.422$, $t\text{-stat} = 5.888$), PU ($\beta = 0.206$, $t\text{-stat} = 2.380$), and SN ($\beta = 0.259$, $t\text{-stat} = 4,460$) have an effect on the customer intention to adopt IB, while PEU, perceived risk and TR have no effect. Meanwhile for conventional banks during the Covid-19 pandemic, it shows that AT ($\beta = 0.362$, $t\text{-stat} = 4.678$), PU ($\beta = 0.180$, $t\text{-stat} = 2.459$), and SN ($\beta = 0.264$ $t\text{-stat} = 4,467$) have an effect on the customer intention to adopt IB, while PEU and perceived risk have no effect.

Table 4: Fit Model

	SRMR	d_{ULS}	d_G	Chi-Square	NFI	Adj R^2
ISB before Covid-19 pandemic	0.047	0.612	0.518	655.089	0.868	0.729
CB before Covid-19 pandemic	0.049	0.655	0.366	919.664	0.871	0.614
ISB during Covid-19 pandemic	0.050	0.687	0.677	847.640	0.854	0.798
CB during Covid-19 pandemic	0.045	0.570	0.429	1,053.221	0.892	0.689

Table 5: Hypothesis Test

	Sample Mean (M)	Standard Deviation	T Statistics	P Values	Result
ISB before Covid-19 pandemic					
AT -> IAIB	0.494	0.070	7.164	0.000	Supported
PEU-> IAIB	0.092	0.073	1.263	0.207	Not supported
PU -> IAIB	0.106	0.072	1.403	0.161	Not supported
SN -> IAIB	0.223	0.059	3.730	0.000	Supported
TR -> IAIB	0.055	0.070	0.830	0.407	Not supported
CB before Covid-19 pandemic					
AT -> IAIB	0.516	0.060	8.664	0.000	Supported
PEU-> IAIB	-0.027	0.060	0.440	0.660	Not supported
PU -> IAIB	0.139	0.066	2.137	0.033	Supported
SN -> IAIB	0.167	0.046	3.647	0.000	Supported
TR -> IAIB	0.120	0.057	2.058	0.040	Supported
ISB during Covid-19 pandemic					
AT -> IAIB	0.422	0.071	5.888	0.000	Supported
PEU-> IAIB	0.116	0.081	1.403	0.161	Not supported
PU -> IAIB	0.206	0.088	2.380	0.018	Supported
SN -> IAIB	0.259	0.059	4.460	0.000	Supported
TR -> IAIB	-0.004	0.063	0.034	0.973	Not supported
CB during Covid-19 pandemic					
AT -> IAIB	0.362	0.077	4.678	0.000	Supported
PEU-> IAIB	0.063	0.062	1.007	0.314	Not supported
PU -> IAIB	0.180	0.075	2.459	0.014	Supported
SN -> IAIB	0.264	0.060	4.467	0.000	Supported
TR -> IAIB	0.081	0.076	0.992	0.322	Not supported

5. Discussion

This study attempts to understand the customer intention to adopt IB in Indonesia before and during the Covid-19 pandemic by integrating two theories which are TPB and TAM. The result shows that before and during the Covid-19 pandemic, AT of Islamic and conventional banks has a significant positive effect on customer intention to adopt IB. These results are consistent with the research of Chiou & Shen (2012) who reveal that AT determines the customer's intention to adopt IB.

Meanwhile, PEU in Islamic and conventional banks before and during the Covid-19 have no significant positive effect on customer intention to adopt IB. These results contradict the original TAM model and other research findings such as (Chau & Ngai, 2010) and (Giovanis et al., 2012). These results indicate that before and during the Covid-19

pandemic, the customers of Islamic and conventional banks found it difficult to use IB.

PU of conventional banks before and during the Covid-19 pandemic is found to have a significant positive effect on customer intention to adopt IB. This finding is similar to the original TAM model and consistent with the research of (Heryani et al., 2020). On the other hand, PU of Islamic banks have a significant effect on the use of IB during Covid-19, but no significant effect before that. This shows that Islamic bank customers feel more benefits from IB during the Covid-19 pandemic, compared to before the Covid-19 pandemic. This is consistent with the research of Chiou & Shen (2012; Kaur & Malik (2019), and Vukovic et al. (2019). SN in Islamic and conventional banks before and during the Covid-19 pandemic significantly influenced the customer intention to adopt IB.

From these results, it can be said that the people closest to the customer environment also influence the intention of Islamic and conventional bank customers to use IB. However, the result is not in line with the research conducted by Kholid (2019), which found that social factors or the influence of the closest people do not affect the intention of millennial customers in using digital banks.

Customer TR of Islamic banks before the Covid-19 pandemic did not affect the customer's intention to adopt IB. Likewise, during the Covid-19 pandemic, customer TR of Islamic and conventional banks do not affect the use of IB. Meanwhile, conventional banks before the Covid-19 pandemic shows that TR influenced the customer intention to adopt IB. This result is supported by the research of (Sharma et al., 2020). This shows that the Covid-19 pandemic reduced customer confidence in Islamic and conventional banks to use IB.

6. Managerial Implications

IB is utilized by customers to make it easier to meet the needs of customers and banks (Simintiras et al., 2014; Sitorus et al., 2017). A study revealed that respondents who are mostly young generation have the potential to utilize IB (Dwivedi & Irani, 2009). The dynamic character of young people requires the management of banks to implement effective marketing strategies to increase the use of IB by customers (Meuter et al., 2005). As most of the young people are students who can use the Internet, it is not difficult for them to utilize the IB facilities provided by banks (Alalwan et al., 2018). IB facilities could not only help the customer in term of business transactions but also help them to save time and energy (Gumussoy, 2016)

Indonesian banks can also use social media to conduct socialization in a more persuasive, advanced, and economic way. Indeed, social media like YouTube, Facebook, and Twitter show a higher level of accessibility because everyone can easily access this application. (Berthon et al., 2012). As per a research in January 2020, there are ten main social media platforms in Indonesia which are Youtube (132 million users), Whatsapp 125 million users), Facebook (122 million users), Instagram (120 million users), Line (89 million users), Twitter (78 million users) million), FB Messenger (71 million users), BBM (57 million users), LinkedIn (50 million users), and Pinterest (4 million users) (We are Social, 2020). This fact shows that social media has been used by all Indonesian people in 2020. Thus, using social media applications to promote the adoption of IB will help Indonesian banking to reach more banking customers. This shows that the use of the Internet to help customers is an inseparable part of the demands of modern human life that wants everything to be fast, cheap, and easy (Rahi & Abd. Ghani, 2019).

Problems experienced by customers of Islamic and conventional banks during the Covid-19 pandemic are the difficulties faced in using IB. Thus, bank management should not merely facilitate customers with IB, but also facilitate customers to be willing and able to use IB (Chen & Zhou, 2016). Banks must improve the facilities needed to optimize the use of IB. For this reason, IB should not only provide online banking facilities but also simplify online access, provide a variety of menus to suit customer needs, and launch more attractive features. (Kaur & Malik, 2019). Initially, banks need to concentrate on providing IB channels compatible with other common technologies used by customers. At the same time, banks need to convince them that using these channels is not much different from other technologies (Vukovic et al., 2019).

7. Conclusions

The data for this study consisted of 213 Islamic bank customers and 410 Conventional bank customers. The findings show that this research successfully predicted the intention of customers to use IB. The results show that all TPB constructions (AT and SN) significantly predicted customer intention in Islamic and conventional banks before and during the Covid-19 pandemic. In the case of the TAM construct, it was identified that the PEU is not found to have a significant effect on the intention of customers of Islamic and conventional banks to use IB. Meanwhile, before the Covid-19 pandemic, PU of Islamic banks does not affect the intention of customers, but PU affects the conventional banks before and during the Covid-19 pandemic. Furthermore, an insignificant relationship is found between TR (TR) and customer intention to use IB, which shows that customers still consider using IB as a risky platform. Thus, the current study can contribute to the management of Islamic banks and conventional banks to make policy strategies to improve IB technology socialization and innovation for customers.

The method used in this study is the quantitative method. The use of quantitative methods can limit the ability of current research to look more closely by clarifying more problems related to the intentions and behavior of Indonesian customers using IB. Therefore, future studies are suggested using quantitative and qualitative methods to get a more detailed explanation of the results of this study. This research concentrates on customers who have used IB in Islamic and conventional banks and does not include other types of customers who defer, oppose, and reject IB. However, studying such customers can help to have a further understanding of the main obstacles that hamper the acceptance of IB. Besides, this research focuses entirely on the customer perspective without any perspective of the bank. Therefore, this can be a limitation for this study as it does not give a comprehensive picture to clarify the

main aspects related to the successful implementation and adoption of IB from both parties; customers and banks.

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