Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Comparing mobile banking and internet banking in indonesia based on technology acceptance mobile & security factor

James Rianto Situmorang
Universitas Katolik Parahyangan, Bandung

Article Info
Keywords:
Client,
internet banking,
moblie banking,
SF,
TAM

ABSTRACT
The emergence of the Internet is an opportunity for banks in Indonesia to provide internet banking and mobile banking services. Internet banking and mobile banking users increased when the Covid-19 pandemic hit Indonesia because people were encouraged to do their activities from home. Based on data from Bank BCA, Bank BNI, and Bank Mandiri, the number of mobile banking users is more than internet banking users. Some factors customers consider to become internet banking and mobile banking users are the Technology Acceptance Model (TAM) and Security Factor (SF). This study aimed to determine how much influence TAM & SF have on customers' mobile and internet banking decisions. The research method is quantitative with statistical tests using SPSS 25 software. The total sample size is 220 people, of which 110 people are for mobile banking research and 110 people are for internet banking research. The results of the study show that TAM & SF have a positive effect on customers' decisions to use mobile banking as well as internet banking. The number of mobile banking users is greater than internet banking users as evidenced by R21 > R22.

Corresponding Author:
James Rianto Situmorang
Universitas Katolik Parahyangan, Bandung
james@unpar.ac.id

INTRODUCTION

The emergence of the Internet decades ago brought many changes in various fields. One that utilizes the Internet is the banking industry in various countries worldwide by providing Internet banking services. Krauter &; Faullant, (2008) stated that internet banking has provided efficiency and convenience for many customers, because customers can transact any service 24 hours a day, seven days a week without having to come to the bank physically; allows them to conduct various transactions electronically anytime and anywhere, faster, and at lower costs compared to traditional banking branches

Internet banking is an important banking service with many technological improvements to increase the number of users. It can be defined as a banking practice that allows customers to access and conduct financial transactions at their bank, view account details, print customizations, print bank statements, and others. (Ibok &; Ikoh, 2013). Many financial institutions use Internet banking to reduce the costs associated with having personnel physically serve customers, shorten processing periods, increase speed, increase flexibility of business transactions, and provide better overall service (Nasri, 2011).

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Currently, many banks use internet banking as one of their distribution channels because internet banking services benefit both banks and their customers (Karjaluoto et al.zhou, 2003).

Internet banking refers to using a bank's website where customers access their banking accounts, conduct financial transactions, and obtain general information about the bank's products and services. It is a "virtual channel" form that allows customers to interact with banks comfortably by allowing them to acquire banking services anytime and anywhere (Arino et al., 2007). Indonesia as a country that has an internet network has had internet banking services since two decades ago. Internet banking in Indonesia started in 2001 when Bank Central Asia (BCA) opened internet banking services with a www.klikbca.com site which other major banks later followed.

With the rapid development of technology, supported by the millennial generation who are now entering the 4.0 era generation where in this era the world is all digital, from the old to children have been trained in using technology such as mobile phones or gadgets (Sudarti &; Sari, 2020). The emergence of mobile phones that can access the internet is an opportunity for banks in Indonesia to start the era of mobile banking. Therefore, the banking sector has introduced mobile banking to enable users to conduct financial transactions efficiently on mobile devices (Zhou, 2011). Mobile banking is one of the technology-based financial services banks provide (Shaikh &; Karjaluoto, 2015). Mobile banking allows customers to conduct banking transactions remotely through applications and 24 hours (Oliveira et al., 2014). Mobile banking provides access to customers' bank accounts through mobile devices to perform bank transactions such as checking account status, transferring money, and others. (Tam &; Oliveira, 2017). Mobile banking is becoming more common daily to the point where it has proven to be an integral constituent of how businesses run today and is inseparable from businesses worldwide (Laforet & Li, 2005).

Mobile banking is a self-service delivery channel offering products and services with ubiquitous access to financial or nonfinancial transactions using mobile devices (Püschel et al., 2010). Cheng et al. (2006) say that technological developments have equipped the banking industry with various electronic channels that drastically lower the significance of traditional banking. Luo et al. (2010) said mobile banking is an innovative method to access banking services through customer-place channels. Practitioners agree that mobile internet is a major growth opportunity for banks and financial service providers. The literature focuses primarily on technology-based factors influencing consumer attitudes and intentions towards mobile banking technology (Bhatt, 2016). Mobile banking in Indonesia was also pioneered by Bank BCA in 2011 with m-BCA services and later also followed by other banks.

According to Newzoo data (2021), smartphone users in Indonesia in 2020 are estimated at 170.4 million people and rank fourth in the number of smartphone users worldwide. This number is a very potential market for mobile banking services in Indonesia. Suoranta & Mattila (2004) observed that people often choose mobile banking because they like mobility. Although mobile banking is becoming a trend, bank customers still favor internet banking. When Indonesia experienced the COVID-19 pandemic, many customers

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

made cashless transactions using mobile and internet banking. According to Bank BCA data in 2021, BCA mobile banking users accounted for 44% and BCA internet banking users accounted for 29% of total digital banking customers. Based on data from Bank BNI in 2021, BNI mobile banking users reached 4.2 million while internet banking users were around 2 million. Likewise, in Bank Mandiri data, mobile banking users amounted to 5 million while internet banking users numbered 3.5 million. The three banks mentioned are the 3 largest banks in Indonesia.

One of the most well-known applied models of user acceptance and use of technology is the Technology Acceptance Model (TAM) of Davis et al. (1989). TAM consists of two important independent variables: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). PU is the extent to which a person believes using a particular system will improve his job performance. PEOU ease refers to the extent to which prospective users expect a target system to be effort-free (Davis et al., 1989). Another factor considered by mobile banking and internet banking customers is the Security Factor (SF) of their use.

Internet banking and mobile banking are generally considered as forms of electronic banking that achieve the same goal (Sripalawat et al., 2011). Thus, internet and mobile banking can be compared using TAM because both utilize internet technology. Based on data from Bank BCA, Bank BNI, and Bank Mandiri, mobile banking users in Indonesia are more than internet banking users. Thus, the purpose of this study is to: find out how much influence TAM &; SF has on customers' decisions using mobile banking (R21). Find out how much influence TAM &; SF has on customers' decisions to use internet banking (R22). And prove if mobile banking users > internet banking users then R21 > R22.

METHODS

Conceptual Models and Hypotheses

From the literature review, researchers propose a conceptual model based on TAM &; SF theory. TAM&SF will be tested for its effect on mobile and internet banking usage decisions. Thus, the research conceptual model can be seen in figure 1 below.

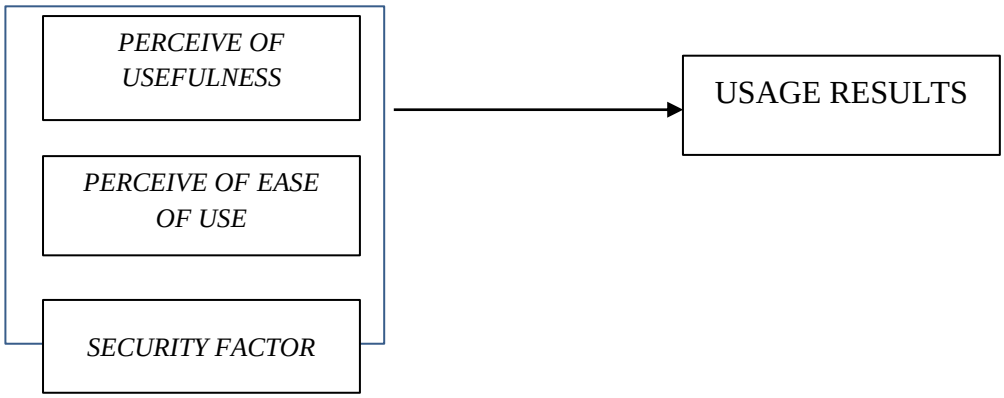

Figure 1. Research Conceptual Model

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Research on the effect of TAM on the use of mobile banking has been conducted by several researchers, among others, Acturan & Teczan (2012), Puriwat & Tripopsakul (2017), and Koenaite et al. (2019). The results showed a positive correlation between TAM and the decision to use mobile banking so the researchers proposed hypothesis 1 (H1) as follows: H1 : TAM &; SF influence the customer's decision to use mobile banking.

Research on the effect of TAM on the use of internet banking has been conducted by several researchers, including Pikkarainen et al (2004), Kaouther (2016), and Vukovic et al (2019). The results showed a positive correlation between TAM and the decision to use internet banking so the researchers proposed hypothesis 2 (H2) as follows: H2 : TAM &; SF influence the customer's decision to use internet banking.

Population &; Sample

The population in this study is customers of Bank BCA, Bank BNI, and Bank Mandiri who use the service mobile banking and internet banking with active status. The questionnaire was distributed to 220 Bank BCA, Bank BNI, and Bank Mandiri customers. Number of respondents to answer statements about use mobile banking and internet banking 110 people each. Respondents to mobile banking and internet banking is a different person. The questionnaire was distributed through:

1. Whatsapp Group (WAG) in the form of Google form. WAG for mobile banking respondents is different from WAG for internet banking respondents.
2. Several branches of Bank BCA, Bank BNI, and Bank Mandiri in Jakarta and Bandung. Conducted face-to-face, respondents who filled out questionnaires for mobile banking were also different from those who filled out questionnaires for internet banking.

The questionnaires were distributed from December 10, 2021, to March 20, 2022, when the Covid-19 positivity rate in Indonesia was declining.

Instruments and Measurements

Item statements about PU and PEU based on theories from Davis et al. (1989). PU consists of 5 statement items and PEU consists of 4 statement items. Based on one of the MSQ dimensions created by Arcand, et al. (2017), the statement item about SF consists of 3 statement items. Statement items on use decisions based on purchase decision theory from Kotler & Keller (2016, consisting of 5 statement items. All statement items were measured using a 5-point Likert scale, ranging from strongly disagree to agree strongly.

Hypothesis Testing

Hypothesis testing using F test on questionnaire data mobile banking and internet banking which is done using SPSS 25 software. Test F is conducted to determine the magnitude of each TAM &; SF influence on customer decisions using mobile banking and internet banking.

RESULTS AND DISCUSSION

Mobile Banking

The first part of the discussion is TAM and SF's influence on customers' mobile banking decisions.

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Table 1. Profile Responden Mobile Banking

Gender	Man	59	53.6 %
	Woman	51	46.4 %
Age (years)	< 18	7	6.4 %
	18-28	27	24.5 %
	29-38	35	31.8 %
	>38	41	37.3 %
Work	Private employees	61	55.4 %
	Civil State Officer	15	13.6 %
	Entrepreneurial	17	15.5 %
	Student	10	9.1 %
	Other	7	6.4 %
Education	Senior High School	15	13.6 %
	Diploma	19	17.3 %
	Undergraduate	61	55.5 %
	Post Graduate	15	13.6 %
Income (Rupiah)	< 5,000,000	11	10.0 %
	5,000,000-10,000,000	10	9.1 %
	10,001,000-15,000,000	12	10.9 %
	15,001,000-20,000,000	40	36.4 %
	> 20,000,000	37	33.6 %
Long time mobile banking user (year)	<3	26	23.6 %
	3-5	56	50.9 %
	6-8	19	17.3 %
	> 8	9	8.2 %

Source : Questionnaire

To prove hypothesis 1, namely TAM &; SF, affects customers' decisions to use mobile banking, researchers take the following steps.

1. Test Validity

a. TAM &; SF Variable Validity

Tabel 2. Correlations

		x01	x02	x03	x04	x05	x06	x07	x08	x09	x10	x11	x12	total
x01	Pearson Correlation	1	.421**	.437**	.410**	.533**	.456**	.422**	.439**	.340**	.350**	.350**	.468**	.630**
	Sig. (2-tailed)		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

x02	Pearson Correlation	.421**	1	.462**	.329**	.496**	.461**	.318**	.244*	.487**	.456**	.454**	.442**	.628**
	Sig. (2-tailed)	<,001		<,001	<,001	<,001	<,001	<,001	.010	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x03	Pearson Correlation	.437**	.462**	1	.814**	.679**	.387**	.512**	.382**	.434**	.597**	.606**	.563**	.775**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x04	Pearson Correlation	.410**	.329**	.814**	1	.609**	.323**	.457**	.346**	.295**	.532**	.513**	.444**	.683**
	Sig. (2-tailed)	<,001	<,001	<,001		<,001	<,001	<,001	<,001	.002	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x05	Pearson Correlation	.533**	.496**	.679**	.609**	1	.593**	.616**	.511**	.478**	.614**	.580**	.576**	.822**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x06	Pearson Correlation	.456**	.461**	.387**	.323**	.593**	1	.433**	.468**	.561**	.532**	.563**	.574**	.721**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x07	Pearson Correlation	.422**	.318**	.512**	.457**	.616**	.433**	1	.642**	.394**	.661**	.634**	.596**	.749**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x08	Pearson Correlation	.439**	.244*	.382**	.346**	.511**	.468**	.642**	1	.518**	.497**	.522**	.435**	.664**

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

	Sig. (2-tailed)	<,001	.010	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x09	Pearson Correlation	.340**	.487**	.434**	.295**	.478**	.561**	.394**	.518**	1	.481**	.537**	.509**	.676**
	Sig. (2-tailed)	<,001	<,001	<,001	.002	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x10	Pearson Correlation	.350**	.456**	.597**	.532**	.614**	.532**	.661**	.497**	.481**	1	.914**	.777**	.843**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x11	Pearson Correlation	.350**	.454**	.606**	.513**	.580**	.563**	.634**	.522**	.537**	.914**	1	.783**	.847**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001		<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x12	Pearson Correlation	.468**	.442**	.563**	.444**	.576**	.574**	.596**	.435**	.509**	.777**	.783**	1	.820**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001		<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
total	Pearson Correlation	.630**	.628**	.775**	.683**	.822**	.721**	.749**	.664**	.676**	.843**	.847**	.820**	1
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	
	N	110	110	110	110	110	110	110	110	110	110	110	110	110

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Sumber : Output SPSS

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

b. Validity of Mobile Banking Usage Decision Variables

Tabel 3. Correlations

		Y01	Y02	Y03	Y04	Y05	total
Y01	Pearson Correlation	1	.486**	.494**	.592**	.643**	.751**
	Sig. (2-tailed)		<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110
Y02	Pearson Correlation	.486**	1	.725**	.580**	.667**	.852**
	Sig. (2-tailed)	<,001		<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110
Y03	Pearson Correlation	.494**	.725**	1	.632**	.548**	.845**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001	<,001
	N	110	110	110	110	110	110
Y04	Pearson Correlation	.592**	.580**	.632**	1	.735**	.841**
	Sig. (2-tailed)	<,001	<,001	<,001		<,001	<,001
	N	110	110	110	110	110	110
Y05	Pearson Correlation	.643**	.667**	.548**	.735**	1	.853**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001		<,001
	N	110	110	110	110	110	110
total	Pearson Correlation	.751**	.852**	.845**	.841**	.853**	1
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	
	N	110	110	110	110	110	110

**. Correlation is significant at the 0.01 level (2-tailed).

Sumber: Output SPSS

Based on the data in tables 2 and 3, significance values for TAM & SF variables and mobile banking usage decisions all < 0.05. Thus all statement items are said to be valid.

2. Reliability Test

Tabel 4. Reliability Statistics TAM & SF

Cronbach's Alpha	N of Items
.925	12

Sumber : Output SPSS

Tabel 5. Reliability Statistics UD

Cronbach's Alpha	N of Items
.882	5

Sumber : Output SPSS

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Based on the data in tables 4 and 5, it is known that Cronbach's Alpha values for TAM &; SF variables are 0.925 and the decision to use mobile banking 0.882 is greater than 0.6, so all statement items are declared reliable.

Tabel 6 ANOVAs

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	754.795	3	251.598	43.551	<,001b
	Residual	612.377	106	5.777		
	Total	1367.173	109			

a. Dependent Variable: MPD
b. Predictors: (Constant), SF, PEU, PU
Sumber: Output SPSS

Tabel 7. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743a	.552	.539	2.404

a. Predictors: (Constant), Security, PU, PEU
Sumber : Output SPSS

Based on the ANOVA output in table 6, it is known that the significance value in the F test is 0.001 < out of a probability of 0.05. It can be concluded that TAM & SF variables simultaneously influence customers' decisions to use mobile banking. Based on the output of the summary model in table 7, it is known that the value of the coefficient of determination (R 2) is 0.552 or 55.2%. The figure shows that TAM & SF influence 55.2% on customers' decisions to use mobile banking.

Internet Banking

The second part of the discussion is the influence of TAM and SF on customers' decisions to use internet banking.

Table 8. Profile responden internet banking

Gender	Man	61	55.5 %
	Woman	49	44.5 %
Age (years)	< 18	4	
	18-28	23	
	29-38	45	
	>38	38	
EmploymentEducation	Private employees	58	52.7 %
	Civil State Officer	19	17.3 %
	Entrepreneurial	14	12.7 %
	Student	12	10.9 %
	Other	7	6.4 %

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Education	Junior High School	2	1.8 %
	Senior High School	20	18.2 %
	Diploma	27	24.5 %
	Undergraduate	49	44.6 %
	Post Graduate	12	10.9 %
Income	< 5,000,000	9	8.2 %
	5,000,000-10,000,000	15	13.6 %
	10,001,000-15,000,000	30	27.3 %
	15,001,000-20,000,000	36	32.7 %
	> 20,000,000	20	18.2 %
Long time internet banking user (year)	<3	9	8.2 %
	3-5	31	28.2 %
	6-8	33	30.0 %
	> 8	37	33.6 %

Source : Questionnaire

To prove hypothesis 2, namely TAM & SF, affects customer decisions using internet banking, researchers perform the same steps as mobile banking.

1. Test Validity

a. TAM &; SF Variable Validity

Tabel 9. Correlations

		x01	x02	x03	x04	x05	x06	x07	x08	x09	x10	x11	x12	total
x01	Pearson Correlation	1	.464**	.365**	.352**	.420**	.334**	.383**	.397**	.444**	.285**	.332**	.398**	.624**
	Sig. (2-tailed)		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	.003	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x02	Pearson Correlation	.464**	1	.364**	.444**	.482**	.377**	.307**	.534**	.384**	.309**	.394**	.372**	.661**
	Sig. (2-tailed)	<,001		<,001	<,001	<,001	<,001	.001	<,001	<,001	.001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x03	Pearson Correlation	.365**	.364**	1	.849**	.529**	.463**	.323**	.446**	.439**	.375**	.429**	.449**	.744**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

x04	Pearson Correlation	.352**	.444**	.849**	1	.594**	.473**	.342**	.420**	.460**	.430**	.445**	.404**	.766**
	Sig. (2-tailed)	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x05	Pearson Correlation	.420**	.482**	.529**	.594**	1	.365**	.278**	.419**	.436**	.407**	.440**	.474**	.715**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001		<,001	.003	<,001	<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x06	Pearson Correlation	.334**	.377**	.463**	.473**	.365**	1	.311**	.432**	.407**	.307**	.314**	.348**	.617**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001	.001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x07	Pearson Correlation	.383**	.307**	.323**	.342**	.278**	.311**	1	.532**	.397**	.306**	.295**	.318**	.567**
	Sig. (2-tailed)	<,001	.001	<,001	<,001	.003	<,001		<,001	<,001	.001	.002	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x08	Pearson Correlation	.397**	.534**	.446**	.420**	.419**	.432**	.532**	1	.509**	.327**	.327**	.392**	.687**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x09	Pearson Correlation	.444**	.384**	.439**	.460**	.436**	.407**	.397**	.509**	1	.367**	.344**	.381**	.669**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x10	Pearson Correlation	.285**	.309**	.375**	.430**	.407**	.307**	.306**	.327**	.367**	1	.799**	.661**	.687**

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

	Sig. (2-tailed)	.003	.001	<,001	<,001	<,001	.001	.001	<,001	<,001		<,001	<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x11	Pearson Correlation	.332**	.394**	.429**	.445**	.440**	.314**	.295**	.327**	.344**	.799**	1	.741**	.726**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	.002	<,001	<,001	<,001		<,001	<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
x12	Pearson Correlation	.398**	.372**	.449**	.404**	.474**	.348**	.318**	.392**	.381**	.661**	.741**	1	.735**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001		<,001
	N	110	110	110	110	110	110	110	110	110	110	110	110	110
total	Pearson Correlation	.624**	.661**	.744**	.766**	.715**	.617**	.567**	.687**	.669**	.687**	.726**	.735**	1
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	<,001	
	N	110	110	110	110	110	110	110	110	110	110	110	110	110

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Output SPSS

Tabel 10. Correlations

		Y01	Y02	Y03	Y04	Y05	total
Y01	Pearson Correlation	1	.582**	.449**	.545**	.577**	.749**
	Sig. (2-tailed)		<,001	<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110
Y02	Pearson Correlation	.582**	1	.766**	.540**	.677**	.872**
	Sig. (2-tailed)	<,001		<,001	<,001	<,001	<,001
	N	110	110	110	110	110	110
Y03	Pearson Correlation	.449**	.766**	1	.599**	.637**	.854**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001	<,001
	N	110	110	110	110	110	110
Y04	Pearson Correlation	.545**	.540**	.599**	1	.716**	.801**

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

	Sig. (2-tailed)	<,001	<,001	<,001		<,001	<,001
	N	110	110	110	110	110	110
Y05	Pearson Correlation	.577**	.677**	.637**	.716**	1	.865**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001		<,001
	N	110	110	110	110	110	110
total	Pearson Correlation	.749**	.872**	.854**	.801**	.865**	1
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	
	N	110	110	110	110	110	110

**. Correlation is significant at the 0.01 level (2-tailed).

Sumber: Output SPSS

Based on the data in tables 9 and 10, significance values for TAM & SF variables and internet banking usage decisions were all < 0.05. Thus all statement items are said to be valid.

b. Reliability test

Tabel 11. Re liability Statistics TAM & SF

Cronbach's Alpha	N of Items
.897	12

Tabel 12. Reliability Statistics UD

Cronbach's Alpha	N of Items
.882	5

Based on the data in tables 11 and 12, it is known that Cronbach's Alpha value for the TAM &; SF variables is 0.897 and the decision to use 0.882 in internet banking is greater than 0.6, so all statement items are reliable.

Tabel 13. ANOVA

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	432.399	3	144.133	29.880	<,001b
	Residual	511.319	106	4.824		
	Total	943.718	109			

a. Dependent Variable: IPD

b. Predictors: (Constant), SF, PEU, PU

Tabel 14. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.677a	.458	.443	2.196

a. Predictors: (Constant), SF, PEU, PU

Jurnal Ekonomi
Volume 13 , Number 01, 2024, DOI 10.54209/ekonomi.v13i01
ESSN 2721-9879 (Online)
https://ejournal.seaninstitute.or.id/index.php/Ekonomi

Based on the ANOVA output in table 13, it is known that the significance value in the F test is 0.001 < out of a probability of 0.05. It can be concluded that TAM & SF variables simultaneously affect customer decisions using internet banking. Based on the output of the summary model in table 14, the coefficient of determination (R2) is 0.458 or 45.8%. The figure shows that TAM & SF influence 45.8% on customers' decisions to use internet banking.

CONCLUSION

The results of data analysis show that Technology Acceptance Model (TAM) and Service Quality (SF) have a significant influence on customer decisions in using mobile banking and internet banking. Support for hypotheses 1 and 2 corroborates that TAM and SF factors can be proven to influence customer decisions regarding both services. The influence of TAM and SF on mobile banking usage decisions (R21) was 55.2%, while the influence on internet banking (R22) reached 45.8%. This confirms that aspects of technology and service quality play an important role in shaping customer preferences regarding digital banking services. However, there is attention to other factors that influence customer decisions, especially related to the selection of the bank where to open an account. Customer decisions in using mobile banking or internet banking are often influenced by the policies and services of the bank. Cases of break-ins at major banks show that reputation does not always reflect the quality of digital banking services. Therefore, suggestions are conveyed to the host banks to improve the performance of their products in the TAM and SF aspects. Thus, it is expected that the influence of these internal factors can become more dominant, strengthen customer trust, and direct their decisions based on the quality of technology and services provided by banks providing mobile banking and internet banking services.

REFERENCES

[1] Arcand, M., Prom Tep, S., Brun, I., & Rajaobelina, L. (2017). Mobile banking service quality and customer relationships. International Journal of Bank Marketing, 35(3), 1068-1089.

[2] Ahmad, A.E.M.K., & Al-Zu' bi, H.A. (2011). E-banking Functionality and Outcomes of Customer Satisfaction: An Empirical Investigation. International Journal of Marketing Studies, 3(1), 51-59.

[3] Akturan, U., & Tezcan, N. (2012). Mobile Banking Adoption of the Youth Market: Perceptions and Intentions. Marketing Intelligence & Planning, 30 (4), 444-459.

[4] Bhatt, K. A. (2016). Factors affecting customers adoption of mobile banking services. Journal of Internet Banking and Commerce, 21(1), 1-22.

[5] Ariño, L.V. C., Flavian, C., & Guinaliu, M. (2008). The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. International Journal of Bank Marketing, 26(6), 399-417. https://doi.org/10.1108 /02652320810902433

[6] Cheng, T.C.E., Lam, D.Y.C. & Yeung, A.C.L. (2006). Adoption of Internet Banking: An Empirical Study in Hong Kong. Decision Support Systems, 42(3), 1558-1572. https://doi.org /10.1016/j.dss.2006.01.002
[7] Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology; a comparison of two theorical models. Management Science, 35(8), 982-1003. https://doi.org /10.1287/mnsc.35.8.982
[8] Dixit. N., & Datta, S.K. (2010). Acceptance of E-banking among Adult Customers: An Empirical Investigation in India. Journal of Internet Banking and Commerce, 15 (2), 1-17.
[9] Fishbein, M. A., & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. Addison-Wesley, Reading, MA.
[10] Hanafizadeh, P., Keating, B.W., & Khedmatgozar, H.R. (2014). A systematic review of internet banking adoption. Telematics and Informatics, 31(3), 492-510. https://doi.org /10.1016 /j.tele.2013.04.003
[11] Hsu, C.L., Wang, C.F., & Lin, J. C.C. (2011). Investigating customer adoption behaviours in mobile financial services. International Journal of Mobile Communications, 9 (5), 477-494. https://doi.org /10.1504/IJMC.2011.042455.
[12] Ibok, N., & Ikoh, I. M. (2013). Determinants of customers satisfaction with internet banking services. British Journal of Arts and Social Sciences, 14 (2), 178-185.
[13] Kaouther, B. M. (2016). An analysis of business' acceptance of internet banking: an integration of e-trust to the TAM. Journal of Business & Industrial Marketing, 31(8), 982-994. https://doi.org /10.1108/JBIM-10-2016-271
[14] Karjaluoto, H., Mattila, M., & Pento, T. (2003). Internet banking adoption among mature customers: Early majority or laggards? Journal of Services Marketing, 17(5), 514 – 528. https://doi.org https://doi.org /10.1108/08876040310486294
[15] Keat, T.K., & Mohan, A. (2004). Integration of TAM based electronic commerce models for trust. Journal of American Academy of Business, 5(1/2), 404-10
[16] Koenaite, M., Chuchu, T., & de Villiers, M.V. (2019). The impact of mobile banking on the adoption of banking products and services in South Africa, using the technology acceptance model. Journal of Business and Retail Management Research, 13(3), 93-103. https://doi.org/10.24052/JBRMR/V13IS03/ART-09
[17] Kotler, P., & Keller, K.L. (2016). Marketing Management. 15e Edition, Pearson
[18] Krauter, S.G., & Faullant, R. (2008). Consumer acceptance of Internet banking: The influence of Internet trust. International Journal of Bank Marketing, 26(7), 483 – 504. https://doi.org /10.1108/02652320810913855
[19] Laforet, S., & Li, X. (2005). Consumers' attitudes towards online and mobile banking in China. International Journal of Bank Marketing, 23(5), 362-380. https://doi.org/10.1108 /02652320510629250
[20] Luo, R., Li, H., Zhang, J., & Shim, J.P. (2010). Examining multi-dimensional trust and multi-faceted risk in ini-tial acceptance of emerging technologies: an empirical study of mobile banking services. Decision Support Systems, 49(2), 222-234. https://doi.org /10.1016/j.dss.2010.02.008

[21] Laukkanen, T. (2007). Internet vs mobile banking: Comparing customer value perceptions. Business Process Management Journal. Vol. 13 No. 6, 788-797. https://doi.org /10.1108/14637150710834550

[22] Laukkanen T. & Kiviniemi, V. (2010). The role of information in mobile banking resistance. International Journal of Bank Marketing 28(5), 372-388. https://doi.org/10.1108 /02652321011064890

[23] Nicolas, C.L. & Castillo, F.J.M. (2008). Customer knowledge management and ecommerce: the role of customer perceived risk. International Journal of Information Management, 28(2), 102-13. https://doi.org /10.1016/j.ijinfomgt.2007.09.001.

[24] Lu, J., Yao, J., & Yu, C. S. (2005). Personal innovativeness, social influences and adoption of wireless internet services via mobile technology. Journal of Strategic Information Systems, 14(3), 245-68. https://doi.org /10.1016/j.jsis.2005.07.003.

[25] Makongoro, G. (2014). Factors influencing customer adoption of mobile banking services in Tanzania, Doctoral dissertation, The Open University of Tanzania.

[26] Malaquias, R.F., & Hwang, Y. (2016). An empirical study on trust in mobile banking: a developing country perspective. Computers in Human Behavior, 54(4), 453-461. https://doi.org /10.1016 /j.chb.2015.08.039.

[27] Mehrad, D., & Mohammadi, S. (2016). Word of Mouth impact on the adoption of mobile banking in Iran. Telematics and Informatics, 34 (7), 1-13. https://doi.org /10.1016/j.tele.2016.08.009

[28] Moser, F. (2015). Mobile Banking: A fashionable concept or an institutionalized channel in future retail banking? Analyzing patterns in the practical and academic mobile banking literature. International Journal of Bank Marketing, 33(2), 162-177. https://doi.org /10.1108/IJBM-08-2013-0082

[29] Nasri, W. (2011). Factors influencing the adoption of Internet banking in Tunisia. International Journal of Business and Management, 6(8), 143-160. https://doi.org /10.5539/ijbm.v6n8p143

[30] Oliveira, T., Faria, M., Thomas, M.A., & Popovič, A. (2014). Extending the understanding of mobile banking adoption: when UTAUT meets TTF and ITM. International Journal of Information Management, 34(5), 689-703.https://doi.org /10.1016/j.ijinfomgt.2014.06.004

[31] Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnila, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. Internet Research, 14(3), 224-235. https://doi.org /10.1108/10662240410542652

[32] Puriwat, W., & Tripopsakul, S. (2017). Mobile Banking Adoption in Thailand: An Integration of Technology Acceptance Model and Mobile Service Quality. European Research Studies Journal, 20 (4), 200-210. https://doi.org/10.35808/ERSJ/885

[33] Puschel, J., Mazzon, J.A., & Hernandez, J.M.C. (2010). Mobile banking: proposition of an integrated adoption intention framework. International Journal of Bank Marketing, 28(5), 389-409. https://doi.org /10.1108/02652321011064908

[34] Shaikh, A.A., & Karjaluoto, H. (2015). Mobile banking adoption: a literature review. Telematics and Informatics, 32(1), 129-142. https://doi.org /10.1016/j.tele.2014.05.003
[35] Sharif, A. (2015). Acceptance of mobile banking framework in Pakistan. Telematics and Informatics, 33(2), 370-387. https://doi.org /10.1016/j.tele.2015.09.005s
[36] Sripalawat, J., Thongmak, M., & Ngarmyarn, A. (2011). M-banking in metropolitan Bangkok and a comparison with other countries. Journal of Computer Information Systems, 51(3), 67-76.
[37] Sudarti, K., & Sari, A.A. (2020). Peran Kepercayaan dan Sikap Terhadap Mobile Shopping Untuk Meningkatkan Niat Pembelian Ulang, Fokus Ekonomi, Jurnal Ilmiah Ekonomi, 15(2), 307-319.
[38] Suoranta, M., & Mattila, M. (2004). Mobile banking and consumer behavior: New insights into the diffusion pattern. Journal of Financial Services Marketing, 8(4), 354-366. https://doi.org /10.1057/palgrave.fsm.4770132
[39] Tam, C., & Oliveira, T. (2017). Literature review of mobile banking and individual performance. International Journal of Bank Marketing, 35(7), 1044-1067. https://doi.org /10.1108/IJBM-09-2015-0143
[40] Yang, A.S. (2009). Exploring adoption difficulties in mobile banking services. Canadian Journal of Administrative Sciences, 26(2), 136-149. https://doi.org /10.1002/cjas.102
[41] Yu, T., & Fang K. (2009). Measuring the post-adoption customer perception of mobile banking services. Cyberpsychology and Behavior, 12(1), 33-35. https://doi.org /10.1089/cpb.2007.0209
[42] Venkatesh, V., & Davis, F.D. (2007). A model of the antecedents of perceived ease of use: development and test. Decision Sciences, 27(3), 451-481. https://doi.org /10.1111/j.1540-5915.1996.tb00860.x
[43] Vuković, M., Pivac, S., & Kundid, D. (2019). Technology Acceptance Model for the Internet Banking Acceptance in Split. Business Systems Research Journal, 10(2), 124-140. https://doi.org /10.2478/bsrj-2019-022
[44] Wang, Y.S., Lin, H.H., & Luarn, P. (2006). Predicting consumer intention to use mobile service. Information Systems Journal, 16(2), 157-179. https://doi.org/10.1111/j.1365-2575.2006.00213.x
[45] Zhou, T. (2011). An empirical examination of initial trust in mobile banking, Internet Research. 21(5), 527-540. https://doi.org /10.1108/10662241111176353
[46] https://newzoo.com/insights/rankings/top-countries-by-smartphone-penetration-and users/ accessed on December 15, 2021