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Explanation Of E-Service Quality and Actual Use of M-Banking

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ABSTRACT:

Technological developments are increasingly rapid from time to time, causing all areas of the business sector to be required to be adaptive. One of which is the banking sector. The digital era has made mobile banking an option to facilitate transaction activities. The actual use of mobile banking is a real-world interpretation to explain the impact of electronic service quality more comprehensively. This study aims to explore mobile banking users in Indonesia. The quality of e-service in mobile banking uses the Technology Acceptance Model (TAM) approach. The survey was conducted in Bandung with 202 mobile banking users; the data were analyzed using SMART PLS with the methods of reliability test, validity test, hypothesis test, and mediation analysis to be able to interpret the research objectives more specifically. The findings indicate e-service quality significantly impacts attitudes towards m-banking, perceived usefulness, and perceived ease of use. It points out that internet-based transactions, especially mobile banking systems, should be made easier, safer, and more convenient for consumers to use.

Keywords:
M-Banking, E-Service Quality, Technology Acceptance Model (TAM)

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1. INTRODUCTION

The ability of information technology has influenced the way humans move and changes daily human life. The increasing use of communication devices such as mobile phones and smartphones has contributed to daily human activities. Significant improvements in technology also have an impact on banking services that bring changes to the way consumers interact with banking providers. The internet has become an essential platform for providing banking services and products. Technological developments make banks inevitably have to adjust the services they provide. Internet innovation and growth have changed how financial services are used (Laukkanen, 2016).

Customer behavior is also shifting towards mobile and digital payments globally and will be fully digital by 2030 (Zuraya, 2021). Based on the OJK (Financial Services Authority) in Indonesia, mobile banking services increased by 270%, from 150.8 million transactions in 2012 to 405.4 million in 2016. Moreover, this digital mobile banking service has increased by 300% from 2016 until August 2021, one of the triggers for this drastic increase was the Covid-19 pandemic. According to APJII (Association of Indonesian Internet Service Providers) (2020), 73.7% of Indonesia's population are internet users, 9% use the internet for banking services, and 5.7% of banking service users use mobile banking.

In Indonesia, users of mobile banking services are widely used by millennials and businesspeople. The previous generation, especially the public, needed to be more adept at using mobile banking due to limited knowledge, and most of them are not tech-savvy. However, with the service quality banks provide, it is hoped that mobile banking users will become an appropriate means for all circles. Many previous studies applied TAM to investigate e-service quality from mobile banking. Identifying the effect of e-service quality dimensions on the actual usage of mobile banking through TAM and TRA is very relevant in this study to evaluate and interpret the actual use of mobile banking, especially in Indonesia, because mobile banking services bring the banking sector into a new world, which is faster and more efficient, not only now but in the future.

2. LITERATURE REVIEW

2.1 E-Service Quality and Attitude Towards Using M-Banking

Good service quality will create customer loyalty and sustainable purchases. A customer-oriented quality strategy is essential for service companies to drive customer behavioral intentions for continuous purchases (Mokhtaran, Fakharyan, Jalilvand, & Mohebi, 2015). Good quality will give you more value. The value obtained from quality significantly affects behavior (Ajzen & Fishbein, 2005). This applies to the quality of electronic-based services. The quality of e-service in internet banking will affect consumer attitudes (Amin, 2016; Oni, Adewoye, & Eweoya, 2016). Other electronic service quality studies confirm this, focusing on the added value consumers feel (Alzoubi & Inairat, 2020).

H1: E-service quality has a positive influence on m-banking user attitudes.

2.2 E-Service Quality and Perceived Usefulness

Lindgren & Jansson (2013) describe e-service as “content-centered, internet-based, customer-driven customer service. Meanwhile, Ting et al., (2016) defines the concept of electronic service quality as an overall customer evaluation and assessment of the excellence and quality of electronic service offerings in virtual markets. Furthermore, previous studies

confirmed that e-service quality affects perceived usefulness (Xin, Irfan, Ahmad, Ali, & Xia, 2023; Zehir & Narcıkara, 2016).

H2: E-service quality has a positive influence on m-banking users' perceived usefulness.

2.3 Perceived usefulness and Attitude towards Using M-Banking

According to (Raza, Umer, & Shah, 2017), perceived usefulness is a measure by which technology is believed to benefit those who use it. According to Shih and Fang (2004), in our research on electronic banking (e-banking), implementing a system that facilitates access for customers in an easier and more agile way will increase perceived benefits and satisfaction (Abd Ghani, Rahi, Yasin, & Alnaser, 2017; Usman, Monoarfa, & Marsofiyati, 2020). Chronological analysis regarding adopting the latest banking technology determines that consumers are slow to respond to technology, but are ultimately interested in using services that provide significant benefits, primarily increased convenience (Laukkanen, 2016).

In addition, perceived usefulness influences individual attitudes toward the intention to utilize mobile banking (Y.-K. Lee, Park, Chung, & Blakeney, 2012). This study applies the TAM model and found perceived usefulness essential in encouraging customers to use more online channels to conduct their transactions and obtain product information (Ghani, Ali, Musa, & Omonov, 2022; Larasetiati & Ali, 2019). Thus, perceived usefulness also significantly influences client attitudes, in addition to having an impact on their intention to use web banking (Yadav, Chauhan, & Pathak, 2015).

H3: Perceived usefulness has a positive effect on attitudes toward the use of m-banking.

2.4 Mediating role of Perceived usefulness

According to (Ahmad, Bhatti, & Hwang, 2020) the perceived usefulness variable successfully mediated between e-service quality and attitude toward e-banking. Apart from that, it was also successful in mediating between e-service quality and behavioral intention toward e-banking. This was confirmed by previous research, which established that perceived usefulness has a positive direct relationship with attitude and behavioral intentions (Jayasingh & Eze, 2015; Shanmugam, Savarimuthu, & Wen, 2014; Siagian, Tarigan, Basana, & Basuki, 2022). Attitude and behavioral intention are indicators in the TPB model, while perceived usefulness is an indicator in the TAM. Additionally, the perceived benefits of perceived use are aligned with the customer's intention to use the service (Al-Zubi, 2021; Tingchi Liu et al., 2012; Vatanasombut, Igbaria, Stylianou, & Rodgers, 2008).

H4a: Perceived usefulness mediates between e-service quality and attitudes toward m-banking usage.

H4b: Perceived usefulness mediates between e-service quality and behavioral intention in using m-banking.

2.5 E-Service quality and Perceived ease of use

(Hanjaya, Kenny, & Gunawan, 2019; Sharma & Madan, 2022) found that e-service quality impacts perceived ease of use. E-service quality allows consumers' wishes to be accessed more flexibly because it can be done anywhere. Moreover, the company's response time is also relatively fast, so customers will be more efficient in making online transactions (Singh, 2002). Ease of use describes the extent to which a person believes that using an information system is free of effort or only requires minimal effort(Wahab, Nor, & Khaled, 2010).

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In technology acceptance theory, perceived ease of use increases enjoyment and attitudes toward using specific systems (Rodrigues, Oliveira, & Costa, 2016). Formerly, (Abdinnour-Helm, Chaparro, & Farmer, 2005) found that perceived ease of use has a direct, positive effect on satisfaction with the commercial use of the web. Moreover, (Liao & Cheung, 2008) empirically tested ease of use as a measure of consumer satisfaction with online banking. Therefore, ease of use triggers customer satisfaction with online banking (Yoon, 2010).

H5: E-service quality has a positive influence on perceived ease of use.

2.6 Perceived ease of use and attitude toward using M-Banking

Perceived ease of use is when someone believes in the use of technology can be easily used and understood. Ease of Use or Perceived Ease of Use (PEU) is defined as the degree to which a person believes that using technology will result in minimum effort (Elkaseh, Wong, & Fung, 2016). Perceived ease of use influences attitude toward using m-banking, based on an empirical study conducted by (Nasri & Charfeddine, 2012), where the subjects in the study were in Saudi Arabia.

In their research, (Yadav et al., 2015) concluded that PEU had no impact on client attitudes toward m-banking. However, many other researchers, such as (Van Birgelen, Wetzels, & van Dolen, 2008) determined that customers' beliefs about the ease of use of m-banking influence their attitude towards m-banking. It has been emphasized in the literature that information system ease of use is an essential factor and plays a significant role in the evaluation of client judgments (Park & Kim, 2003; Szymanski & Hise, 2000). In this study, Perceived Ease of Use (PEU) or difficulty is defined as the extent to which the m-banking application is easier to use and accept.

H6: Perceived ease of use positively affects attitudes toward the use of m-banking.

2.7 The perceived usefulness of e-service quality mediates in shaping attitudes towards mobile banking

An individual's level of trust in a specific technology or system can be considered as their attitude towards using it (J.-H. Lee & Song, 2013). Service quality has a positive impact on perceived ease of use (Van Birgelen et al., 2008). The variable perceived ease of use has successfully mediated between e-service quality and attitude toward using e-banking (Ahmad et al., 2020). Because attitudes towards adopting certain services are affected by perceived ease of use which is closely related to service quality (Gunawan, Ali, & Nugroho, 2019; Oni et al., 2016).

H7: Perceived ease of use mediates between e-service quality and attitudes toward the use of m-banking statistics.

2.8 Attitude towards using m-banking and behavioral intentions towards using M-Banking

Attitude toward using the Technology Acceptance Model is defined by (Davis & Venkatesh, 1996) as positive or negative feelings from someone if they have to do the behavior to be determined. Positive attitudes towards using information system technology will naturally lead individuals to use it more frequently. The way customers utilize technology

is consistent with their attitudes towards it (Ajzen & Fishbein, 2005; Michelle Bobbitt & Dabholkar, 2001). Researchers have examined the effect of attitude on technology adoption (Aboelmaged & Gebba, 2013; H.-Y. Kim, Lee, Mun, & Johnson, 2017; Y. J. Kim, Chun, & Song, 2009).

Prior studies have established that attitude is crucial in shaping one's behavioural intentions in various innovation contexts, such as purchasing from e-commerce retailers Wu, Huang, and Fu (2011): electronic social insurance (Egea & González, 2011) and e-commerce (Beiginia, Besheli, Soluklu, & Ahmadi, 2011; Crespo & Del Bosque, 2010; Grandón, Nasco, & Mykytyn Jr, 2011). The effect of attitude on behavioral intention on m-banking has also been studied by many researchers (Abu-Taieh et al., 2022; Naruetharadhol et al., 2021; Wessels & Drennan, 2010)

H8: Attitudes towards using m-banking have a positive effect on behavioral intentions in the use m-banking.

2.9 Perceived usefulness and behavioral intentions to use m-banking.

It is noted in the TRA that one's knowledge about the benefits of technology can direct one's attitude towards the technology (Ajzen & Fishbein, 2005; Davis & Venkatesh, 1996). Previous research has shown that perceived usefulness influences behavioural intention (Ahmad et al., 2020). According to a study conducted by Raza et al., (2017) perceived usefulness and ease of use significantly impact behavioural intentions towards mobile banking. The study emphasizes that perceived usefulness and ease of use are the primary factors affecting behavioural intention in mobile banking.

One study discussed the application of the Technology Acceptance Model (TAM) to examine the factors affecting consumers' adoption of mobile services in Taiwan. The study's findings indicate that perceived ease of use positively impacts perceived usefulness, which, in turn, leads to a positive attitude towards mobile services. The attitude was identified as the primary determinant of behavioral intention towards mobile services (Shanmugam et al., 2014). The study suggests that perceived usefulness does not have a significant direct effect on behavioral intention. However, there is a significant indirect effect through attitude towards behavioral intention.

H9: Perceived usefulness positively affects behavioural intention to use m-banking.

2.10 Mediating role of attitude towards using m-banking between E-Service quality and behavioral intentions towards using M-Banking

Several service provision attributes that will affect consumer attitudes show a relationship between the quality of electronic services and consumer attitudes (Ahmad et al., 2020). It shows that existing subjective norms directly influence behavioral intentions (J.-H. Lee & Song, 2013). The e-service quality has a favorable influence on consumer attitudes (Carlson & O'Cass, 2010). The effect of this attitude influences behavioural intention in the form of innovation (Wu et al., 2011). The effect of this attitude is mediated by e-service quality and behavioural intention(Ahmad et al., 2020).

H10: Attitudes towards using m-banking mediate between e-service quality and behavioural intention in using m-banking.

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2.11 Mediating role of behavioral intention towards m-banking between attitude towards using m-banking and actual use of m-banking

In the psychological aspect, behavioral intention has significantly positive effects on actual purchase behavior (Ajzen & Fishbein, 2005). In 2019, the influence of behavioral intention was investigated through mobile banking (Rehman & Shaikh, 2020). This study states that behavior intention indirectly affects the actual use of mobile banking through attitude. Based on the research of (De Leon, 2019; Rehman & Shaikh, 2020), prior behavior has a significant relationship with behavioral intention, whereas prior usage has a positive relationship with intention in using mobile banking.

H11: Behavioral intention towards m-banking positively affects the actual use of m-banking.

2.12 Mediating role of behavioral intention towards m-banking between attitude towards using m-banking and actual use of m-banking

According to (Ajzen & Fishbein, 2005), a behavioral intention is an intense form of behavior. This behavior is closely related to attitudes and behavior. Attitudes and intentions will represent related technology uses (J.-H. Lee & Song, 2013). The relationship between attitude and actual use will be regulated or influenced by behavioral intention (Ahmad et al., 2020).

H12: Behavioral intention towards m-banking mediates between attitudes towards using m-banking and actual use of m-banking.

2.13 The relationship between e-service quality and the actual usage of mobile banking is sequentially mediated by attitude and behavioral intention

Attitudes and intentions sequentially will affect the quality of electronic services and create actual use of certain electronic-based services (Ahmad et al., 2020). This attitude positively impacts using and buying from a website (Jadil, Rana, & Dwivedi, 2022). This applies to e-banking-based electronic services (Y.-K. Lee et al., 2012).

H13: Attitude and intention toward m-banking sequentially mediate between e-service quality and actual usage of m-banking.

2.14 The Research Model

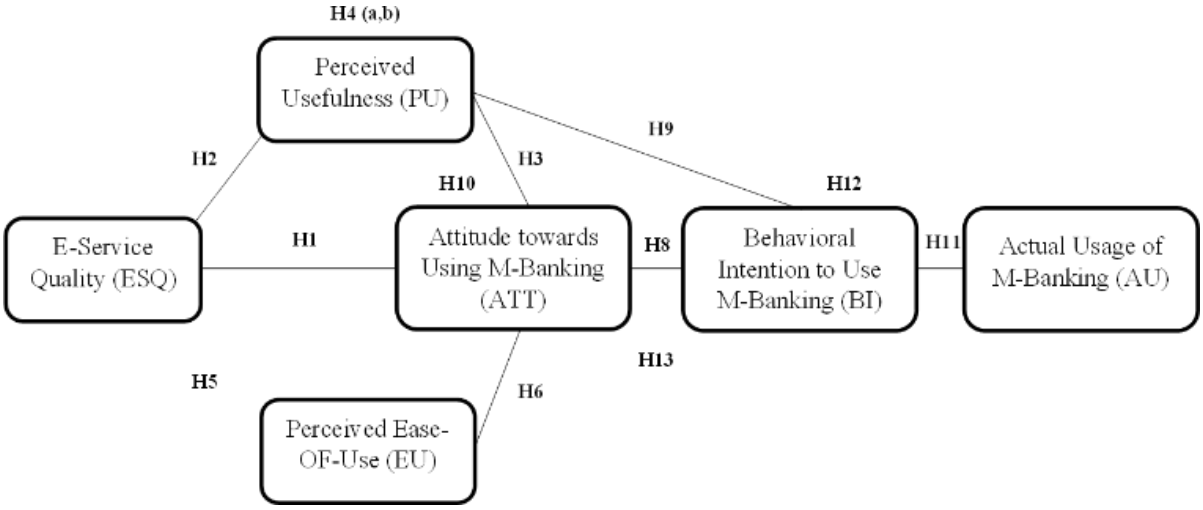

Figure 1. The Research Model

3. METHODS

This research was carried out using a survey in the form of a questionnaire and distributed to respondents through Google Forms. The sample size of this study is based on the recommendations for SEM by (Wolf, Harrington, Clark, & Miller, 2013) that to avoid bias and increase statistical power; the recommended minimum sample size point is 180. The questionnaire is distributed online to collect perceptions using the convenience sampling method. The respondents of this study are consumers who use mobile banking services in Indonesia. Based on the questionnaire data, the respondents are users of 15 banking service providers that facilitate users with mobile banking services in Indonesia. The distribution of online questionnaires resulted in 202 responses from 202 online respondents.

The survey is comprised of three sections. The first section deals with mobile banking information, including whether the respondents have used mobile banking services in the past. The second section contains statements related to the research variables, such as e-service quality, perceived usefulness, perceived ease of use, attitude, behavioral intention, and actual usage. The third section is about demographic information, such as gender, age, education, occupation, and monthly income. The second section, which pertains to the variables under investigation, employs a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4. RESULTS AND DISCUSSION

4.1 Respondents Profile

The sample is randomly selected, and the population is consumers who use m-Banking living in Indonesia. Data was successfully collected from 202 respondents.

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Table 1. Respondent's Profile

Variable		Frequency	Percentage
Gender	Female	170	84,2%
	Male	50	33,8%
Age	< 18 years old	4	2%
	18-25 years old	177	87,6%
	26-35 years old	17	8,4%
	36-45 years old	3	1,5%
	>45 years old	1	0,5%
Education	Senior High School	57	28,2%
	Diploma	31	15,3%
	Bachelor	109	54%
	Post-graduate	4	2%
Job	Students	162	80,2%
	Civil servant	4	2%
	Housewife	7	3.5%
	Employee	18	8,9%
	Entrepreneur	7	3,5%
	Doctor	1	0,5%
	Honorary Employee	1	0,5%
	Restaurant crew	1	0,5%
	Entrepreneur	1	0,5%
Income/month	≤ Rp.1 million	109	54%
	Rp. 1 – 2 million	51	25,2%
	Rp. 2 – 3 million	12	5,9%
	> Rp. 3 milliion	30	14,9%
M-Banking	BRI Mobile	55	27,2%
	BCA Mobile	89	44,1%
	Mandiri Online	27	13,4%
	BNI Mobile	62	30,7%
	Go Mobile by CIMB Niaga	1	0.2%
	BSI Mobile Banking	15	7,4%
	Permata Mobile	1	0,5%
	Jenius (BTPN)	21	10,4%
	BTN Mobile	5	2,5%
	Bjb digi	6	3%
	Line Bank	4	2%
	D-Bank Danamon	1	0,5%
	Bank Jago	1	0,5%
	Muamalat DIN	1	0,5%

Table 1 presents the personal data of the respondents. Respondents were asked to fill in data regarding gender, age, education, last job, and monthly income. Respondents were dominated by women (84.2%); age range 18-25 years (87.6%) D4/S1 (54%); students/students (80.2%); and income per month <Rp. 1,000,000 (54%). Meanwhile, the m-banking application

most used by respondents was BCA Mobile, with 89 users (44.1%), and, BRI Mobile, with 55 users (27.2%).

4.2 Measurement Model (Outer Model Assessment)

The outer model (measurement model) is analyzed in the first step. The purpose of external assessment of the model is to check the quality of the measurements used in the research. For construction assessment, several parameters were examined, which included indicator reliability, reliability, internal consistency reliability, convergent validity, and discriminant validity, because previous researchers had suggested these parameters (Hair, Hollingsworth, Randolph, & Chong, 2017; Henseler, 2017).

Table 2. Measurement Model

Variables	Factor Loading	Cronbach' Alpha	Composite Reliability	AVE
Attitude toward Using		0.811	0.887	0.724
ATU_1	0.875			
ATU_2	0.840			
ATU_3	0.836			
Actual Usage		0.880	0.926	0.806
AU_1	0.909			
AU_2	0.912			
AU_3	0.872			
Behavioral Intention		0.856	0.902	0.698
BI_1	0.874			
BI_2	0.834			
BI_3	0.835			
BI_4	0.798			
E-Service Quality		0.780	0.872	0.694
ESQ_1	0.823			
ESQ_2	0.866			
ESQ_3	0.810			
Perceived Ease of Use		0.763	0.863	0.678
EU_1	0.828			
EU_2	0.757			
EU_3	0.881			
Perceived Usefulness		0.784	0.874	0.699
PU_1	0.823			
PU_2	0.807			
PU_3	0.876			

Table 2 shows that the attitude toward Using, Actual Usage, Behavioral Intention, Perceived Ease of Use, and Perceived Usefulness attributes are declared valid because all of them have values > 0.5. Meanwhile, the statement is declared invalid on the E-Service quality attribute 3 because it has a value <0.5. All the constructs have a satisfactory level of reliability, as indicated by Cronbach's alpha values, which are all 0.7 or greater. The alpha values range from 0.763 for perceived ease of use to 0.888 for Actual Usage (Hair et al., 2017). Researchers have confirmed composite reliability (CR) as a better indicator of internal consistency than

Cronbach's Alpha in studies involving analysis using the PLS-SEM approach (Hair et al., 2017; Henseler, 2017). Based on Table 2, all CR values ranged from 0.863 to 0.926 and exceeded the suggested criteria (Hair et al., 2017). Both Cronbach's alpha and CR were calculated. To assess convergent validity, outer loadings, and AVE perils were accessed. Outer loadings ranging from 0.757 to 0.912 meet the criteria (Hair et al., 2017). All AVE values were above 0.50, ranging from 0.678 to 0.806.

Table 3. Discriminant Validity (Fornell-Larcker)

	AU	ATU	BI	ESQ	EU	PU
AU	0,898					
ATU	0,644	0,851				
BI	0,654	0,702	0,836			
ESQ	0,5	0,637	0,663	0,833		
EU	0,548	0,696	0,681	0,717	0,824	
PU	0,526	0,675	0,664	0,717	0,676	0,836

To test for discriminant validity, Fornell and Larcker's criteria (1981) were used, which assess the relationship between the construct and its variance rather than the variance shared with other constructs. This criterion involves comparing each construct's average variance extracted (AVE) with the squared correlation between constructs (Hair et al., 2017). The square root of the AVE for each construct is then compared to the correlations of that construct with other constructs. If the square root of the AVE is greater than the correlations with other constructs, then discriminant validity is established. The results, as presented in Table 3, indicate that the square root of each construct's AVE is more significant than its correlations with other constructs, indicating good discriminant validity. As a result, the model is deemed acceptable in terms of overall quality.

4.3 Inner Model Testing

Once the measurement model (outer model) has been tested, the next step is to test the structural model (inner model) to determine whether the hypotheses can be supported or rejected. For this study, a significance level of 0.05 will be used.

Table 4. Result of Hypothesis Testing

	Coefficients	T Statistics	P Values	Note
H_1: ESQ→ATU	0,130	1,611	0.100	
H_2: ESQ→PU	0,717	8,999	0.000	Accepted
H_3: PU→ATU	0,321	4,598	0.000	Accepted
H_5: ESQ→EU	0,717	11,819	0.000	Accepted
H_6: EU→ATU	0,386	5,157	0.000	Accepted
H_8: ATU→BI	0,466	6,228	0.000	Accepted
H_{11}: BI→AU	0,654	12,178	0.000	Accepted
H_{12}: PU→BI	0,350	3,493	0.000	Accepted

The corresponding beta coefficients and t-values (significance) are shown in Table 4. This study tested 8 hypotheses, calculating the path coefficients (β), which indicated the influence between the 2 variables. Data analysis found that ATU ((β=0.466) ;(t=6.228)) and PU (0.350; 3.493) significantly and positively affect BI. Then, it was found that ESQ (0.13; 1.65) did not significantly affect ATU, conversely EU (0.386; 5.157), and PU (0.321; 4.598) significantly positively affect ATU. In addition, it was found that ESQ positively and significantly influenced EU (0.717; 11.819) and PU (0.717; 8.999), and BI (0.654; 12.178) significantly and positively affected AU.

Table 5. Effect Size

	f^2					
	AU	**ATU**	**BI**	**ESQ**	**EU**	**PU**
AU						
ATU			0,268			
BI	0,748					
ESQ		0,015			1,057	1,056
EU		0,149				
PU		0,103	0,151			

The f^2 value can indicate the effect of the substantive independent variable on the endogenous construct. Determining the magnitude of the substantive effect on endogenous latent is classified into 3 categories: a small effect of 0.02, a moderate effect of 0.15, and a significant effect of 0.35. Table 5 shows the effect of BI on AU is 0.784, indicating a significant effect. Then, the effect of ESQ (0.015), EU (0.149), and PU (0.103) on ATU are small, moderate, and moderate consequently. In addition, ATU (0.268) and PU (0.151) both have a moderate effect on BI, and the effect size of ESQ is significant or large on both EU (1.057) and PU (1.056).

Table 6. Goodness of Fit (GoF)

Variables	**AVE**	**R Square**
AU	0,806	0,425
ATU	0,724	0,562
BI	0,698	0,555
ESQ	0,694	
EU	0,678	0,511
PU	0,699	0,511
Average	0,716	0,512
AVE x R square		0,366
GoF		**0,605**

The value of Goodness of fit (GoF) according to Sarwono (2015) and Hussein (2015) is divided into three categories: 0.10 (weak), 0.25 (moderate), and 0.36 (strong). Table 6 shows that the value of the GoF of this study is 0.60 which indicates a strong fit. This can also be translated that the measurement and structural model of this study is feasible.

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Table 7. Result of Direct and Indirect Effects

	Direct effect			Indirect effect		
	β	**T-Stat**	**P-value**	**β**	**T-Stat**	**P-value**
ESQ -> PU -> ATU	0.130	1.611	0.1	0.230	4.407	0.00
ESQ -> PU -> BI	0.547	6.050	0.0	0.251	2.922	0.00
ESQ -> EU -> ATU	0.130	1.650	0.1	0.277	4.501	0.00
ESQ -> ATU -> BI	0.547	6.050	0.0	0.060	1.461	0.10
ATU -> BI -> AU	0.528	5.758	0.0	0.305	5.351	0.00
ESQ -> ATU -> BI -> AU	0.358	4.354	0.0	0.039	1.441	1.15

Mediating variable is the variable that mediates the effect between independent variables to dependent variables (MacKinnon, Coxe, & Baraldi, 2012). That is, to test between the two at one time, which aims to explain the process of a model more deeply because the mediating variable appears as a function of the independent variable (Fernandes, 2017). The mediation test uses the direct effect and the indirect effect (Preacher, 2004) and to see the significance and strength of the relationship with the path coefficient. Table 8 shows the result of the direct and indirect effects of mediating variables tested.

The result shows that ESQ does not affect ATU (β=0.13, t=1.611), but it indirectly affects ATU through the mediating role of PU (β=0.23, t=4.407). In other words, ATU would indirectly increase through the mediating role of PU by as much as 23%, indicating a partial mediation between ESQ and ATU. The second one is the result of the effect of ESQ on BI, which shows that ESQ directly influences BI (β=0.547, t=6.05) and indirectly influences BI through the mediating role of PU (β=0.251, t=2.922). If ESQ is increased by one unit, then BI will indirectly increase through PU by as much as 25%, indicating a partial mediation effect between ESQ and BI through PU. The third result shows that ESQ indirectly affects ATU through the mediating role of EU (β=0.277, t=4.501). The increase on one point ESQ will indirectly increase the ATU through the mediating role of the EU by 28%, indicating a partial mediating effect. The fourth result shows that ESQ does not indirectly affect BI through the mediating role of ATU (β=-0.06, t=1.461). This also means that there is no mediating effect between ESQ and BI through ATU. The fifth result shows that ATU directly influences AU (β=0.528, t=5.758) and indirectly affects AU through the mediating role of BI (β=0.305, t=5.351). This shows that for every increase of ATU, will affect the increase of AU by 30% through the mediation of BI, indicating a partial mediation effect. Lastly, the result shows that there is no mediation effect of ATU and BI within ESQ and AU (β=0.039, t=1.441).

The overall result of the path diagram that shows the relationship between each variable is shown in Figure 2 below.

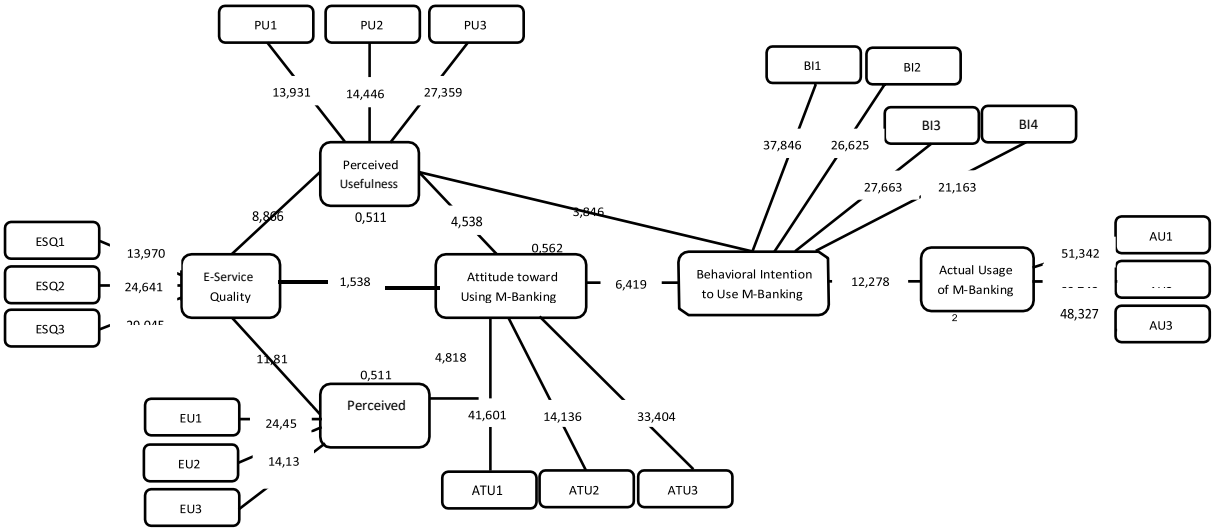

Figure 2. Tested Research Model

5. DISCUSSION

The rapid development of the internet and information technology has created a significant effect on the banking industry (Abu-Taieh et al., 2022) and made m-Banking one of the most important services to maintain customers loyalty by ensuring their satisfaction and building an even stronger relationship with them (Usman et al., 2020). This is because the measurement indicators of customers' expectation of m-banking services is a fundamental key to guiding the banking industry (H.-Y. Kim et al., 2017).

This research aims to investigate the relationship between e-service quality and actual usage of mobile banking in Indonesia using the Technology Acceptance Model (TAM). The results of this study are consistent with previous research in applying TAM along with service quality. However, they differ from a study by (Xin et al., 2023), which suggests that electronic service quality affects actual usage through the mediating role of attitude and consumer intention. Based on the testing of thirteen hypotheses, this study found that e-service quality significantly impacts attitudes towards m-banking, perceived usefulness, and perceived ease of use. When consumers perceive m-banking as valuable and easy to use, perceived ease of use results in a positive attitude, significantly affecting usage behavioral intention. Although e-service quality impacts behavioral intention, it does not significantly affect attitude, meaning that it affects actual behavioral intention but not attitude.

Xin et al., (2023) state that improving the quality of service is directly related to perceived usefulness and ease of use, which is aligned with the actual usage of mobile banking. Mediating variables are used to determine the relationships between interrelated variables. Actual usage partially mediates the relationship between service quality, user attitudes, and behavioral intentions towards m-banking. Therefore, mediating variables do not alter the relationship between the variables because attitudes and behavioral intentions ultimately depend on the quality of the services provided. This reflects the actual use of m-banking. Furthermore, according to Hanjaya et al., (2019), the quality of e-services towards usage attitudes will not be affected by the perceived ease of use in using m-banking. Although the attitude and actual use of m-banking are influenced by behavioral intentions, the presence or absence of behavioral intention will not change the attitude towards use and actual use.

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Therefore, the attitude towards using m-banking services accurately represents the actual use of m-banking users.

Consumers' attitudes and usage intentions will not alter the impact of e-service quality on the actual usage of m-banking. While attitudes and intentions may have some influence on actual use, ultimately, the quality of service is what matters most. This is because the TPB and TAM models intersect, meaning that attitudes and intentions may be important factors, but they ultimately come back to the quality of service.

6. CONCLUSION AND LIMITATION

This study discusses the convenience and flexibility of internet-based transactions (mobile banking) and highlights customers' concerns about low-quality service. The study explores how e-service quality factors affect customers' actual use of mobile banking. The findings support the Technology Acceptance Model (TAM) by showing that higher levels of e-service quality led to stronger behavioral intentions to use mobile banking. This contrasts with previous studies that directly link e-service quality and actual usage. In Indonesia, there has been an increase in the use of mobile banking, but this needs to be reflected in actual usage attitudes due to inadequate service quality. The banking industry could provide more education and stimuli to encourage actual use. However, this study has geographic, economic, and sample size limitations. Future research can further explore these factors and improve the models used in this study.

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