

## System-Social Strategy for Trust Building in Mobile Banking Context

*Phyo Min Tun\**

*Vincent Mary School of Science and Technology, Assumption University, Thailand.*

*Cherisa Nantha*

*Department of Digital Technology for Education, Faculty of Technical Education,  
Rajamangala University of Technology Thanyaburi, Thailand.*

*Atikom Srivallop*

*Faculty of Business and Technology, Stamford International University, Thailand.*

*Surapong Siripongdee*

*School of Industrial Education Technology and Innovation,  
King Mongkut's Institute of Technology Ladkrabang, Thailand.*

Received 8 November 2022, Received in revised form 27 December 2022,

Accepted 29 January 2023, Available online 7 May 2024

### Abstract

This paper aims to examine the roles of system and social perspectives for trust building in the mobile banking context and the moderating effects of demographic groups on direct effects on trust. The study investigates system perspectives (system quality and system usefulness), social perspectives (social influence and word-of-mouth), and moderators (gender, age, and education) as an exploratory study. This study employed deductive reasoning quantitative research approach by using 294 datasets. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to calculate the factors' validity and reliability. The Structural Equation Modeling (SEM) technique was employed to estimate direct effects, indirect effects, and moderator effects. The findings reveal that system quality, system usefulness, and word-of-mouth affect trust, while social influence has an insignificant effect on trust. Besides, system quality has a significant effect on system usefulness, and social influence has a significant effect on word-of-mouth, respectively. Also, education level is significantly moderating the direct effect of word-of-mouth and trust. This research extends the understanding of the system and social perspectives that influence trust and might be a barrier to mobile banking adoption in Myanmar. Also, the findings of this research will assist private banks in recognizing the behavior patterns of customers so that they can create a proper system-social strategy to boost the confidence of customers about mobile banking and fulfill the knowledge gap regarding system and social aspects.

**Keywords:** system, social, trust, mobile banking.

**JEL Classifications:** G20, G21

\* Corresponding author: Email: phyomintun@au.edu

## 1. Introduction

Mobile technology is one of the most modern commercial technologies and has been applied in many different business landscapes. Extensive mobile technology has become employed in both commercial and social areas. Mobile technology-based services have an intense impact on customers because they enable customers to access services and information conveniently. Thus, mobile technology has become inseparable from the daily routine and a method to establish networking and communication. Currently, there are four mobile telecom operators in Myanmar, namely: MPT, Ooredoo, ATOM (formerly known as Telenor), and MyTel. As a consequence, the number of mobile phone users in Myanmar reached more than 73 million in 2022 and escalated to more than 4 million compared to 2021 (Kemp, 2022).

Myanmar has been ruled by a military regime since 1962, and the international community has less interest in the country's economic situation. After the event of pro-democracy activity in 1988, the military government introduced a privatization and market-oriented economic system in 1990. At the same time, the government liberalized the financial market by releasing the financial institution's laws. This event can be considered significant for the country's financial market, and it led to the establishment of private banks. The country's financial market was not completely emancipated because the Central Bank of Myanmar (CBM) directly administered the financial institutions according to the inclination of the military government (Win & Kofinas, 2021).

As a result, there were fourteen private banks before the Myanmar banking crisis in 2003, which led to the collapse of customers' trust in private banks. Four more private banks were established during the period of the banking crisis in 2003 and the political transformation which occurred in 2011. Following the political transformation, financial institutions have become vigorous, and nine more private banks have emerged (Tun, 2021). However, the military coup in February 2021 led to the end of the glaring days of private banks in Myanmar. Shortly after the coup, the military government restricted cash withdrawals from private banks, and a cash shortage crisis occurred (Tun, 2022). The nascent customer trust was destroyed again. Hence, the trust issue is still enormous in Myanmar.

## 2. Theoretical Background

According to socio-technical systems theory, collaboration between people (end-users and customers) and technical systems can produce positive outcomes (Ciborra et al., 1984). Appelbaum (1997) also claimed that the ecosystem can produce positive psychological results when social and technical aspects work together. On the other hand, Baxter & Sommerville (2011) proposed a socio-technical approach for a better understanding of how social and technical factors affect the use of information systems (IS). They argued that even if the systems meet their technical requirements, they can be a failure unless they properly consider the social aspects of the environment in which the systems are utilized.

Delone & McLean (1992) suggested system quality as a principal factor in evaluating the success of IS, which is adapted from the Theory of Communication. Seddon (1997) alluded to the fact that system quality alone does not have sufficient measurement for IS; therefore, perceived usefulness was proposed to be considered as an

additional factor in the IS context. The originality of the perceived usefulness construct is from the Technology Acceptance Model (TAM) developed by Davis (1989) which is frequently employed in investigating users' behavior in an IS context. While system quality can explain the performance of IS, perceived usefulness can explain the efficacy of IS for users (Jhantasan, 2022; Tun, 2020a). The conventional technology research models such as TAM and IS success models are mainly focused on the individual's perspective on IS; however, people are using IS because not only is it useful but also because of the encouragement of their social peers nowadays (Junglas et al., 2013). Therefore, Bagozzi (2007) suggested considering the social aspect in the IS context.

Social influence was introduced as a social dimension in the Unified Theory of Acceptance and Use of Technology (UTAUT) model, which particularly focuses on the users' beliefs in the technology context (Venkatesh et al., 2003). Moreover, social influence is the most tested independent factor in the mobile financial service context, according to Singh et al. (2020). In regard to another social aspect, Dellarocas (2003) stated that word-of-mouth is one of the oldest social activities for exchanging market information among customers. Mukerjee (2018) asserted that word-of-mouth (WOM) is a powerful information resource in decision-making and plays an important role in the banking context. Also, previous researchers have proven that WOM and MB trust are inextricably related (Mehrad & Mohammadi, 2017; Tun, 2020a).

### 3. Literature Review

MB is an application based on mobile technology which allows customers to conduct financial transactions via their smartphones, such as checking account balances, transferring funds, and making payments (Ghobakhloo & Fathi, 2019). MB can also be defined as an innovative way to interact with a bank for banking services through a channel using a mobile device (Khasawneh et al., 2018). MB is a technological transformation for the banking environment by discarding traditional banking channels. On the other hand, MB is a subset of mobile commerce (M-Commerce) which enables conducting business transactions via mobile networks (Tun, 2021b). MB aims for the banked population with smartphone usage to deliver banking services through downloadable mobile apps. From a bank's perspective, MB can save operating costs, enhance competitive advantages, provide constant service, minimize financial transaction errors, and prevent fraud (Koo et al., 2013).

In Myanmar, at the beginning of the monetary policy transformation age, visiting physical branches was the only option to use banking services. Nowadays, mobile phone users carry out their financial activities by using mobile technology (Thanabordeekij et al., 2020). MB is one of the applications based on mobile technology, which is widely used in the banking industry. Since MB emerged, banks have expanded their services for their customers without tangible facilities such as branches by using MB. Nevertheless, private banks in Myanmar cannot back off emerging modern technology, such as mobile technology, to compete in the market and sustain their businesses. Among the private banks, CB Bank was the first private bank to introduce mobile banking services in Myanmar. MB allows private banks to provide effective and reliable services for their customers and to attain a competitive advantage. Thus, developing MB and encouraging people to trust MB has become an inevitable mission for private banks (Tun, 2020a).

Despite many researchers understanding the importance of system-social issues in building trust, most of them did not deliver a clear explanation of which aspect is more important than the other, most notably, in the MB context, system or social (Table 1).

Therefore, the major objectives of the current research are to identify the critical factors that affect MB trust and to set the priority aspect for building MB trust so that private banks can formulate the proper strategy to enhance the confidence of their customers in MB. In addition, the moderating effects of demographic profile on the direct effects between the factors will be examined as an exploratory study in this research. Further, this research study aims to figure out the following research questions:

RQ1: Can system perspective assist in building trust?

RQ2: Can social perspective assist in building trust?

RQ3: Which perspective is more important, system or social?

Table 1: Previous Studies on MB Trust

Researchers	Country	Sampling Size	Antecedents of MB Trust	
			System	Social
Tertia & Nurbasari (2022)	Indonesia	106	Usefulness	N/A
Ramli et al. (2021)	Indonesia	232	Usefulness	N/A
Tun (2020a)	Myanmar	275	System quality	Word-of-mouth
Ghobakhloo & Fathi (2019)	Worldwide	402	System quality	N/A
Damabi, Firoozbakht & Ahmadyan (2018)	Iran	155	System Quality	N/A
Ramos et al. (2018)	Brazil	272	Usefulness	N/A
Khasawneh, Hujran & Abdrrabbo (2018)	Jordan	404	N/A	Social influence
Mehrad & Mohammadi (2017)	Iran	384	N/A	Word-of-mouth
Malaquias & Hwang (2016a)	Brazil	307	N/A	Social influence
Malaquias & Hwang (2016b)	Brazil	1077	N/A	Social influence
Koo, Wati & Chung (2013)	Indonesia	141	Usefulness	N/A
Maroofi, Kahrarian & Dehghani (2013)	Iran	210	Usefulness	N/A
Zhou (2012)	China	240	System quality	N/A
Zhou (2011)	China	210	System quality	N/A
Lee & Chung (2009)	Korea	276	System quality	N/A

Source: Previous Literatures

## 4. Research Model and Hypotheses Development

### 4.1 System Quality (SQ)

System quality was formulated from a technical perspective; therefore, system quality is considered the technical quality of the MB system in this study. Technical quality refers to the consistency of the system's accessibility, ease, and functionality (Delone & McLean, 1992). Furthermore, system quality reflects reliability, flexibility, stability, and ease of navigation. In the absence of the above features, customers may doubt the capability of the banks in providing the system, as it might increase their difficulty in engaging with the system and might lead to a possible decline in customers' trust in MB and suspicions of the usefulness of the system. Several studies (Damabi et al., 2018; Ghobakhloo & Fathi, 2019; Lee & Chung, 2009; Zhou, 2011) found system quality to be a critical predictor of trust. Tun (2020a) also confirmed that the improved system quality of MB in Myanmar had a significant positive effect on MB trust. Based on the above arguments, the enhancement of system quality can lead to higher MB trust. Thus:

H1: System quality has a significant positive effect on trust.

#### **4.2 System Usefulness (SU)**

One of the manifest usefulnesses of MB is being able to conduct financial transactions with low energy and monetary costs from anywhere at any time using a mobile phone. However, Koo et al. (2013) asserted that usefulness significantly relies on the quality of the system in the MB context, and system quality is an antecedent of system usefulness. According to the study by Seddon (1997), system usefulness is the degree to which system users think that engaging a particular system will enhance their work performance. Similarly, Zhou (2011) stated that users can perceive the usefulness of the system if it is of good quality. If a system has features such as an easy-to-use, user-friendly layout and offers appropriate functions, it may help users accomplish tasks quickly. On the other hand, MB trust can be built based on the customers' positive experiences, such as improving their productivity or performance by using MB. Ramos et al. (2018) suggested that system usefulness is one of the key predictors of MB trust. Therefore:

H2: System quality has a significant positive effect on system usefulness.

H3: System usefulness has a significant positive effect on trust.

#### **4.3 Social Influence (SI)**

Individuals decisions are influenced by the community which is relevant to them, and it is also known as a social activity in which subjective information regarding new technology is handed over from one person to another (Rogers, 1995). Thus, social influence can be defined as the extent to which the opinions of individuals that social peers such as a friend, family members, relatives, and colleagues who are important to them consider he or she should carry out a particular behavior (Venkatesh et al., 2003). Customers tend to gain knowledge regarding products or services through the information they receive from different sources (Malaquias & Hwang, 2016a). This means individuals elucidate products or services based on the influence of their social circle. Also, a previous study (Malaquias & Hwang, 2016b) identified social influence as a component that can affect MB trust. Moreover, Tun (2020a) proved that the collective opinions of social circles influence an individual's perspective, which will lead to generating WOM. Thus, the following hypotheses are formulated:

H4: Social influence has a significant positive effect on trust.

H5: Social influence has a significant positive effect on WOM.

#### **4.4 Word-of-mouth (WOM)**

Although word-of-mouth (WOM) is not an emerging phrase, it is rarely used in the MB context (Tun, 2020a). WOM is the informal opinion of individuals regarding products or services based on their prior experience using them. It is an exchange process of oral or informal messages between two parties regarding products or services (Arndt, 1967). Moreover, WOM communication is the passing of information concerning products or services for non-commercial purposes. On the other hand, WOM is one of the most crucial and efficacious marketing tools that can improve profits for businesses. The businesses have to pay extra attention as it will be a market competitive advantage, which may lead to improving the customers' reliance (Mukerjee, 2018). The major cause is that customers greatly rely on suggestions from their family members, friends, or co-workers and obtain their advice. Also, Mehrad & Mohammadi (2017) proved that WOM is critical for trust building, especially in the MB context. This leads to proposing the following hypothesis:

H6: WOM has a significant positive effect on trust.

#### 4.5 Trust (TR)

Trust is a vital construct that influences the attitude of customers, most notably in the MB context (Thanabordeekij et al., 2020; Lonkani et al., 2020). It is pivotal for customers to realize that their financial information will remain secure and confident whenever they are conducting financial transactions via MB (Tun, 2020a). Most customers hesitate to interact with MB for their financial transactions because of their worries about security and unreliability. The major concerns of customers are data theft, privacy violations, and monetary losses when conducting financial transactions through MB. The lack of tangible interaction between online service and customers usually leads customers to suspect online transactions as having unpredictable and greater threats (Tun, 2021c). It is essential for financial service providers such as banks to provide the customer with a feeling of reliance so that they can engage with MB confidently (Tertia & Nurbasari, 2022). There are several studies that have proven that both systemic and social factors affect MB trust (Table 1).

The hypothesized direct effects in the theoretical research model (Figure 1) which have been proposed to be investigated are presented explicitly in Table 2, which also includes literature support. However, the examination of moderator effects on the direct effects of factors on MB trust is considered an exploratory study because there was very limited theoretical and literature support for them in prior studies, particularly in the MB context.

H7(a): The effect of system quality on MB trust is moderated by gender.

H7(b): The effect of system quality on MB trust is moderated by age.

H7(c): The effect of system quality on MB trust is moderated by education.

H8(a): The effect of system usefulness on MB trust is moderated by gender.

H8(b): The effect of system usefulness on MB trust is moderated by age.

H8(c): The effect of system usefulness on MB trust is moderated by education.

H9(a): The effect of social influence on MB trust is moderated by gender.

H9(b): The effect of social influence on MB trust is moderated by age.

H9(c): The effect of social influence on MB trust is moderated by education.

H10(a): The effect of word-of-mouth on MB trust is moderated by gender.

H10(b): The effect of word-of-mouth on MB trust is moderated by age.

H10(c): The effect of word-of-mouth on MB trust is moderated by education.

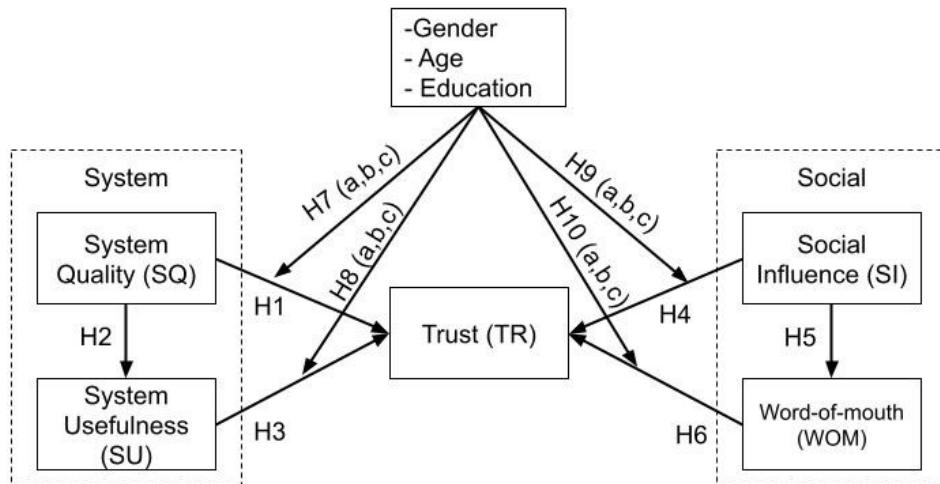
Table 2: The List of Hypotheses with Literature Support

	Hypotheses	Literature Support
H1	SQ → TR	Lee & Chung (2009), Tun (2020a), Chemingui & Lallouna (2013)
H2	SQ → SU	Koo, Wati & Chung (2013), Zhou (2011)
H3	SU → TR	Ramos et al. (2018), Ramli et al. (2021)
H4	SI → TR	Filho, Nogueira & Costa (2022), Malaquias & Hwang (2016a), Malaquias & Hwang (2016b)
H5	SI → WOM	Tun (2020a)
H6	WOM → TR	Mehrad & Mohammadi (2017)
H7 (a, b, c)	Gender, age, and education have a significant moderation on SQ → TR.	Exploratory

Hypotheses		Literature Support
H8 (a, b, c)	Gender, age, and education have a significant moderation on SU → TR.	Exploratory
H9 (a, b, c)	Gender, age, and education have a significant moderation on SI → TR.	Exploratory
H10 (a, b, c)	Gender, age, and education have a significant moderation on WOM → TR.	Exploratory

Source: Previous Literatures

Figure 1: Proposed Research Model



Source: Authors' Formulations

## 5. Research Design

The cross-sectional deductive reasoning quantitative research was conducted through an online survey, and a self-administrated questionnaire (Appendix-A) was created in bilingual language (Burmese - English) by using Google Form based on previous literature. Conducting surveys is a flexible and effective research method that is widely used for psychological research studies, and it is a suitable technique to learn the behaviors of people (Neuman, 2006). The survey questionnaire consists of two sessions. The first section is for asking demographic information about respondents (gender, age, education) by using multiple-choice questions. In this section, there is a filter question (yes/no) to confirm that the respondent is an MB user.

The second section is for Likert scale questions from 1(strongly disagree) to 5 (strongly agree) to measure the indicators of factors. A pilot study was engaged with 30 respondents who are highly literate in the Burmese-English language and have strong knowledge of using MB. After completing the pilot study, the questionnaire was sent to randomly selected MB users through email, and all the participants were completely volunteers. Kline (2011) recommended the sampling size to be the number of indicators ratio (N:q) should be (20:1) for Structural Equation Modeling (SEM) analysis. Therefore, a total of 320 responses were collected for this study.

## 6. Data Analysis and Findings

### 6.1 Demographic Profile

Data were collected from MB users of private banks in Myanmar, and 320 MB users participated in this research. After eliminating 26 outlier datasets (8.1%), the available valid questionnaires were down to 294. The demographic profile of respondents is shown in Table 3. The number of genders is even, 50% male and 50% female. Only 3.1% of the respondents are under 21 years old, and the rest are 21 years old and older. More than half of the respondents (55.4%) have a bachelor's degree, 7.5% are holding a diploma, and 27.9% obtained a master's degree. 9.2% of respondents pursued a Ph.D.

Table 3: Profile of Respondents for Quantitative Research

Demographic (N=294)		Frequency	Percentage
Gender	Male	147	50.0
	Female	147	50.0
Age	18 – 20 years	9	3.1
	21 – 25 years	43	14.6
	26 – 30 years	70	23.8
	31 – 35 years	76	25.9
	36 – 40 years	50	17.0
	> 41 years	46	15.6
Education	Diploma	22	7.5
	Bachelor Degree	163	55.4
	Master Degree	82	27.9
	Ph.D	27	9.2

Source: Authors' Calculations

### 6.2 Factor Cross-loading Analysis

According to the part of exploratory factor analysis (EFA), all the variables of the factors in the proposed research model were examined by using the Principal Components Analysis (PCA) method with a Varimax rotation in SPSS software. Kaiser-Meyer-Olkin (KMO) value is 0.923; therefore, sampling adequacy is excellent and the data is suitable for factor analysis. The factor cross-loading values of all the measurement items ranged from a minimum of 0.581 to a maximum of 0.819. Five constructs affiliated with sixteen variables are confirmed according to the analysis result of factor loading (Table 4).

Table 4: The Analysis Result of Factors Cross-Loading

Indicator	Trus s	Word-of- mouth	System Quality	System Usefulness	Social Influence
TR3	.785	.257	.115	.106	.217
TR1	.761	.165	.171	.244	.195
TR2	.713	.258	.344	.232	.096
TR4	.595	.363	.311	.236	.142
WOM1	.227	.770	.166	.240	.186
WOM3	.302	.760	.174	.260	.211

Indicator	Trust	Word-of-mouth	System Quality	System Usefulness	Social Influence
WOM2	.298	.758	.131	.184	.231
SQ3	.180	.141	.780	.245	.181
SQ1	.253	.037	.724	.086	.040
SQ2	.117	.327	.678	.082	.317
SU2	.206	.271	.111	.819	.181
SU3	.282	.256	.174	.786	.232
SU1	.204	.178	.428	.581	.277
SI2	.265	.200	.137	.145	.785
SI3	.173	.092	.092	.323	.707
SI1	.072	.322	.288	.102	.688

Source: Authors' Calculations

### 6.3 Factor Correlation Analysis

The Pearson correlation test was employed for factor correlation analysis in SPSS software. The shaded cells in Table 5 indicate the 6 hypotheses in the research model. The analysis test results indicated that all the factors have a significant positive correlation at a level of 0.01. Whereas word-of-mouth has the highest correlation coefficient (0.668) with trust and system quality has the lowest correlation coefficient (0.535) with system usefulness among the proposed hypotheses.

Table 5: The Analysis Result of the Correlation Among Factors

	SQ	SI	SU	TR	WOM
SQ	1				
SI	.509**	1			
SU	.535**	.598**	1		
TR	.572**	.537**	.635**	1	
WOM	.502**	.585**	.625**	.668**	1

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

Source: Authors' Calculations

### 6.4 Convergent Validity and Reliability Analysis

As presented in Table 6, all the values of Cronbach's Alpha for all factors exceed 0.70, which is the recommended minimum level for the indicators. Also, all the standardized regression weights for each measurement of factors are significant and greater than 0.50. Moreover, the average variance extracted (AVE) estimates of each construct are above 0.5, and the values of composite reliability (CR) are above 0.7, which reveals that convergent validity was achieved (Hair et al., 2010).

Table 6: The Analysis Result of Convergent Validity and Reliability

Factors	Indicators	Std. Regression Weights	AVE	CR	Cronbach's Alpha
Word-of-mouth (WOM)	WOM1	0.805	0.693	0.871	0.868
	WOM2	0.815			
	WOM3	0.875			
Social Influence (SI)	SI1	0.710	0.521	0.764	0.755
	SI2	0.788			
	SI3	0.661			
System Quality (SQ)	SQ1	0.571	0.514	0.756	0.737
	SQ2	0.754			
	SQ3	0.804			
System Usefulness (SU)	SE1	0.707	0.666	0.856	0.845
	SE2	0.831			
	SE3	0.899			
MB Trust (TR)	TR1	0.761	0.615	0.864	0.863
	TR2	0.836			
	TR3	0.747			
	TR4	0.790			

Source: Authors' Calculations

### 6.5 Discriminant Validity Analysis

The purpose of verifying discriminant validity is to determine whether the variables of a scale reflect the respective factor or not. Discriminant validity can be checked with the square root of the AVE of each factor greater than the correlation between all the factors. In Table 7, the value of the square root of AVE is highlighted, and it is higher than the correlation coefficient of other factors in the research model. Therefore, the discriminant validity in this research was established according to the guidance of Fornell & Larcker (1981).

Table 7: The Analysis Result of Discriminant Validity

Factors	WOM	SI	SQ	SU	TR
Word-of-mouth (WOM)	<b>0.832</b>				
Social Influence (SI)	0.709	<b>0.722</b>			
System Quality (SQ)	0.623	0.669	<b>0.717</b>		
System Usefulness (SU)	0.714	0.697	0.636	<b>0.816</b>	
MB Trust (TR)	0.770	0.653	0.705	0.717	<b>0.784</b>

Source: Authors' Calculations

### 6.6 Model Fit Indices Analysis

The measurement model and structural model fit (Table 8) were examined using six common measures, including CMIN/DF ( $\chi^2/DF$ ), goodness-of-fit (GFI) index, adjusted goodness-of-fit (AGFI) index, normed fit index (NFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). In this study, the measurement model fitted the data well with  $\chi^2/DF = 2.008$ , GFI = 0.925, AGFI = 0.892, NFI = 0.930, CFI = 0.963, and RMSEA = 0.059. The results of structural model fit indices are as follows:  $\chi^2/DF = 2.605$ , GFI = 0.902, AGFI = 0.863, NFI = 0.906, CFI = 0.939, and RMSEA = 0.074. Therefore, all the values of model fit indices indicate that both the measurement and research models are acceptable fits to the collected data.

Table 8: The Analysis Result of Model Fit Indices

Model fit indices	Recommended Value	Models	
		Measurement	Structural
$\chi^2/DF$	< 3	2.008	2.605
GFI	> 0.9	0.925	0.902
AGFI	> 0.85	0.892	0.863
NFI	> 0.9	0.930	0.906
CFI	> 0.9	0.963	0.939
RMSEA	< 0.08	0.059	0.074

Source: Authors' Calculations

### 6.7 Direct Effects Analysis

The direct effects were examined as proposed in Table 2. The analysis results for direct effects are concluded in Table 9. System quality ( $\beta=0.489$ ,  $t=2.550$ ,  $p=0.011$ ), system usefulness ( $\beta=0.184$ ,  $t=2.040$ ,  $p=0.041$ ), and word-of-mouth ( $\beta=0.372$ ,  $t=4.781$ ,  $p<0.001$ ) have a significant positive effect on trust. Thus, H1, H3, and H6 were supported. Furthermore, system quality ( $\beta=0.759$ ,  $t=10.695$ ,  $p<0.001$ ) has a statistically significant positive effect on system usefulness, and social influence ( $\beta=0.782$ ,  $t=9.569$ ,  $p<0.001$ ) positively affected WOM. Hence, H2 and H5 were accepted. However, social influence ( $\beta=-0.198$ ,  $t=-1.049$ ,  $p=0.294$ ) does not have a significant effect on trust; therefore, H4 was rejected.

Table 9: The Analysis Result of Direct Effects

Hypothesis	Path	Std. Effect	p-Value	t-Value	Result
H1	SQ → TR	.489	.011	2.550	Accepted
H2	SQ → SU	.759	< .001	10.695	Accepted
H3	SU → TR	.184	.041	2.040	Accepted
H4	SI → TR	-.198	.294	-1.049	Rejected
H5	SI → WOM	.782	< .001	9.569	Accepted
H6	WOM → TR	.470	< .001	4.781	Accepted

Source: Authors' Calculations

### 6.7 Moderator Effects Analysis

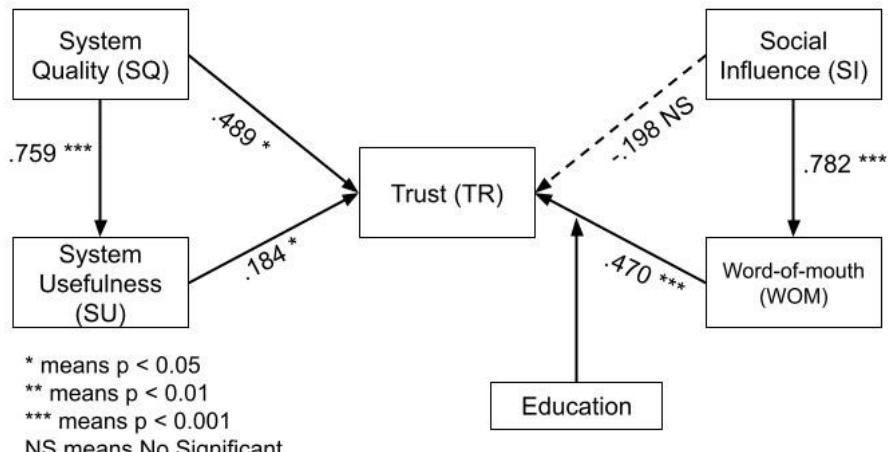
The formulation of groups among the demographic profiles (gender, age, and education) is described in Table 10, which investigates the moderating effects on the direct effects. Each moderator group analysis was performed in AMOS using the theoretical model presented in Figure 1. AMOS can provide a critical ratio for differences in values for each group between the direct effects, which can be interpreted as a significant moderator if the value is greater than 1.96. In Table 10, critical ratios for differences in direct effects are presented, and only the education group has a statistically significant moderating effect on the direct effect between WOM and trust. Therefore, only H10c was validated.

Table 10: The Analysis Result of Moderating Effects

Demographic	Hypothesis	Path	Critical ratios for differences	Moderating	Result
Gender	H7a	SQ → TR	0	No	Rejected
	H8a	SU → TR	0.81	No	Rejected
	H9a	SI → TR	1.071	No	Rejected
	H10a	WOM → TR	1.689	No	Rejected
Group: Male (N = 147), Female (N = 147)					
Age	H7b	SQ → TR	0.025	No	Rejected
	H8b	SU → TR	1.475	No	Rejected
	H9b	SI → TR	0.104	No	Rejected
	H10b	WOM → TR	1.837	No	Rejected
Group: 18-30 years old (N = 122), above 30 years old (N = 172)					
Education	H7c	SQ → TR	0.705	No	Rejected
	H8c	SU → TR	0.108	No	Rejected
	H9c	SI → TR	0.618	No	Rejected
	H10c	WOM → TR	2.976	Yes	Accepted
Group: Graduated (N = 109), Undergraduate (N = 185)					

Source: Authors' Calculations

Figure 2: Final Research Model



Source: Authors' Calculations

### 6.8 Total Effect Size Analysis

The total effect size of each perspective is calculated by combining the indirect and direct effects of factors from the respective perspective. According to the analysis result (Table 11), the total effect size of the system perspective on trust is 0.813 and the social perspective is 0.639; therefore, the system perspective has a greater effect on trust than the social perspective. The explained variance ( $R^2$ ) in system usefulness (SU) is 57.7%, word-of-mouth accounts for 61.1%, and trust (TR) accounts for 70.5% of the variance, respectively.

Table 11: The Analysis Result of Total Effects on Trust

Path	Total effect size of factors	Perspective	Total effect size of perspectives
SQ → TR	0.629		
SU → TR	0.184	System	0.813
SI → TR	0.169		
WOM → TR	0.470	Social	0.639

R<sup>2</sup> : SU = 57.7%, WOM = 61.1%, TR = 70.5%

Source: Authors' Calculations

## 7. Discussion

The findings of this study contribute theoretical viewpoints to the research on MB trust. System quality is an independent factor and has a significant direct positive effect on system usefulness (H2) and trust (H1). Lee & Chung (2009) proved that improving the system quality of MB service can enhance customers' trust. Chemingui & Lalloua (2013) endorsed that system quality is important to earn customers' trust. Tun (2020a) also concluded that if MB offers appropriate functions without interruption, is easy to use with quick responses, and is allowed to access information securely, customers will believe that MB is trustworthy.

In the banking ecosystem with advanced technology, MB with good system quality provides a wider range of task accomplishments with low operation costs, and Koo et al. (2013) have proven it in their study. When customers perceive the mobile banking system as helpful for them and allow them to achieve tasks related to financial transactions, a positive attitude of customers toward MB will be developed. Moreover, the customers' positive attitude toward the usefulness of MB will increase due to the better system quality of MB. System usefulness utterly depends on system quality because users evaluate the utility of a system based on its quality (Zhou, 2011). H3 was supported in this study, which means MB trust can be built on the system's usefulness. If a system can assist in completing daily tasks quickly or increase productivity, the users will have more faith in it. Likewise, several previous studies revealed this theoretical concept (Ramos et al., 2018; Ramli et al., 2021).

Interestingly, social influence has no significant direct effect on trust, and H4 was rejected in this study. The functions of social influence do not determine the behavior of customers, especially for building MB trust. The result is aligned with the study by Montazemi & Saremi (2015), who found that social influence does not have a significant effect on trust, particularly in the post-adoption stage. Tun (2020b) also reported a similar result: social influence is not critical for trust building in the mobile financial service context. According to the analysis results, H5 was accepted. Tsai, Kuo, and Tan (2017) disclosed that the social group with common experience in using products or services distributes and shares their opinions and suggestions through personal conversations. The relationship between social influence and word-of-mouth could be explained by the fact that the source of the abundance of word-of-mouth is social influence. Besides, the result is consistent with the findings of a previous study by Tun (2020a), who proved that social influence is an indispensable motivation for WOM dissemination.

In this study, WOM has the second-most significant positive effect on trust, followed by system quality, and H6 was accepted. The finding is identical to the previous

studies (Tun, 2020a; Mehrad & Mohammadi, 2017). Studies have proven that a more positive WOM will lead to a higher level of MB trust. In addition, education level significantly moderates the causal effect between WOM and trust, therefore, different educational backgrounds can alter this relationship.

## 8. Conclusion

Despite the many private banks in Myanmar offering MB services, many customers still lack confidence in MB. Therefore, the major motivation of this research is to compare and identify which perspective is more vital for building MB trust. The findings reveal that all the factors significantly affect trust, but social influence does not, and education level is moderating the direct effect between word-of-mouth and trust. This study delivers a clear picture for the private banks in Myanmar that the system perspective is more important than the social perspective for trust building and extends the literature of MB. Thus, private banks should devise effective strategies in the financial market by paying more attention to the system perspective of MB in order to improve customers' confidence in MB, particularly during an unstable period. Meanwhile, private banks should not underestimate the power of WOM from social groups, which can transform customers' beliefs.

Although this research study delivers comprehensive knowledge about the system and social perspectives, there are still limitations to this study. First of all, the participants in this research are MB adopters, and non-adopters were excluded. Second, the findings of this research may not reflect other mobile financial services because this study focuses primarily on building MB trust. Third, investigating only the system and social aspects of MB users can be considered one of the limitations. Finally, this study was conducted during the 3Cs situation (Cash Shortage + Coup + COVID-19) in Myanmar, which means that the results of this study may be different in other circumstances.

This study can be extended in the future based on the following recommendations. First, future studies should focus on MB users from younger age groups who have different experiences with mobile technology and social backgrounds. Second, the research model of this study can be investigated in other mobile financial services, such as mobile wallets. Third, a larger data sampling size is recommended for future studies to avoid bias in the findings. Finally, only three demographic profiles are considered moderators in this study, and more demographic profiles such as occupation, income, and frequency of usage are recommended to be considered moderators in the future study.

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## Appendix

### A: Questionnaire and Preliminary Data Analysis Result for Quantitative Research

Items	Descriptions	t-Value	Mean (N=294)	Std. Deviation	Skewness	Kurtosis
SQ1	MB is easy to find information.	7.621	3.41	.934	.072	-.641
SQ2	MB is easy to use.	24.416	4.15	.810	-.597	-.403
SQ3	MB offers appropriate functions.	19.958	3.91	.783	-.359	-.254
SI1	People think I should use MB.	22.513	4.12	.852	-.530	-.705
SI2	People think using MB is valuable.	17.091	3.91	.918	-.444	-.556
SI3	People's viewpoints about MB are important.	17.368	3.96	.950	-.550	-.458
SU1	MB enables me to accomplish things quickly.	23.000	4.10	.816	-.442	-.695
SU2	MB increases my productivity.	14.603	3.82	.963	-.372	-.538
SU3	MB enhances my effectiveness.	17.534	3.89	.871	-.223	-.715
TR1	MB keeps its promises.	10.238	3.55	.929	-.109	-.269
TR2	MB meets my needs.	14.678	3.77	.898	-.325	-.374
TR3	MB is trustworthy.	8.824	3.47	.919	-.172	-.018
TR4	MB has the ability to fulfill its task.	16.964	3.82	.832	-.196	-.454
WOM1	I will talk about the strengths of MB with people I know.	17.259	3.91	.902	-.323	-.699
WOM2	I will talk about MB as quite positive.	16.577	3.87	.897	-.335	-.586
WOM3	If you ask me about MB, I will definitely recommend it.	24.290	4.15	.814	-.479	-.812

Source: Previous Literatures