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The Drivers of Trust and Individual Performance: Evidence from Young Vietnamese Mobile Banking Users

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Abstract

Individual performance of mobile banking users is a key goal for not only consumers but also the bank in order to maintain customer loyalty and the firm's long-term growth. This is critical, and it should be addressed even more so in the context of developing countries, where the mobile banking is an emerging development. This research aims to uncover the mechanisms that influence individual performance of customers when using mobile banking. To achieve this goal, we used PLS-SEM to examine data from 297 young individual customers who are the most prominent customer group of mobile banking in Vietnam. The results showed that all 4 research hypotheses, including 3 hypotheses about the impact of system quality, information quality, brand equity on trust, and one hypothesis about the effect of customer's trust on the individual performance are confirmed. The crucial findings and suggestions of this study has extended the current stock of knowledge in mobile banking business and especially brings important guidelines for banking business practitioners in developing countries.

Keywords: *Trust; Individual Performance; Mobile Banking Users, Young Vietnamese*

1. Introduction

The financial sector has undergone significant changes in the last decade, along with changes in consumer tastes and the impact of new technology that has led to the impressive development of new banking products and services (Geebren et al, 2021; Malaquias & Hwang, 2019; Baptista & Oliveira, 2015) Part of this change is the tendency to use e-banking products and services to settle basic banking transactions (Geebren et al, 2021). As one of the most innovative technologies in the banking sector, mobile banking allows customers to perform financial transactions (balance queries, money transfers, bill payments, etc.) on mobile devices, smartphones, or personal digital assistants (PDA) (Lin, 2013). Mobile banking contributes to creating value for customers by helping them not be dependent on time and place of transactions (Choudrie et al., 2017; Lin, 2013), not bound by space

and time (Laukkanen, 2007). For banks, mobile banking is the most effective channel to provide customers with the best quality services in a wide range, while helping to overcome limitations in branch expansion (Alalwan et al., 2017). As of the end of 2020, the number of payment transactions via mobile banking achieved more than 920 million transactions with a total value reached more than 300 billion USD, Vietnam is considered one of the most prominent mobile banking markets in Asia and it is predicted to grow beyond 300% in the period 2021-2025 (IDC, 2021). In the Covid pandemic circumstances, when consumers tend to avoid direct contacts by choosing mobile banking for their transactions, mobile banking even becomes more potential for development, especially in the context of Vietnam, where is one of the most dynamic economy in Asia and currently only 15.71% of the population have utilized this kind of transaction by the end of 2020 (Degenhard, 2021a).

Mobile banking has attracted various studies recently, but it also revealed significant research gaps. First, the majority of studies focus on motivations leading to intention and mobile banking usage (Malaquias & Hwang, 2019; Alalwan et al., 2017; Farah et al., 2018; Sharma et al., 2017; Zhou et al., 2010; Luarn & Lin, 2005) while one of the most crucial factor sustainning the usage and attracting more customers is current users' individual performance is still unexplored sufficiently (Tam & Oliveira, 2019; Tam & Oliveira, 2017; Tam & Oliveira, 2016). According to Tam & Oliveira (2019), individual performance is understood as the benefit of the user, is one of the goals aimed at consumers and is also the factor that businesses really need to attract, maintain and motivate customers to use mobile banking in the long term (Tam & Oliveira, 2019; Delone & McLean, 1992; DeLone & McLean, 2003). To address the shortcomings in theory and practice, this study focuses on clarifying the mechanism that affects the individual performance of customers using mobile banking, exploring the role of system quality, information quality, and brand equity in enhancing trust and the effect of trust on the individual performance of mobile banking users based on signaling theory justifying (Spence, 1973). The research results aim to contribute in the following ways: The study extends the knowledge of mobile banking users' behaviors and introduces and examines a novel research framework revealing the linkages among system quality, information quality, and brand equity toward trust and individual performance. Accordingly, the results of the research are significantly useful to for policymakers and business practitioners to reinforce the individual performance of young users of mobile banking in Vietnam and other developing countries.The study's conclusions also contribute key insights that can be useful to spawn new discussions and underpin fresh topics for future research.

2. Theoretical Background and Hypotheses Development

2.1 Signaling Theory and Research Model

The conceptual framework of this paper is built on the principles of signaling theory, which explains how individuals transfer information to others in uncertain circumstances (Spence, 1973). According to Connelly et al. (2011), signaling theory refers to purposely transferring the organization's positive information and has an effect on cognition, decision-making process, and behavioral intention of the receivers. This theory has been widely utilized in the fields of marketing, and management to disclose how organizations use external signals to transfer product and service information to consumers to lessen their perceived uncertainty (Li et al., 2015). There are abundant signals that can convey to influence customers' perceptions and behavior, such as advertising (Chung & Kalnins, 2001), reputation (Bockstedt & Goh, 2011; Bolton et al., 2008), price (Erdem et al., 2008), brand (Erdem et al., 1998; Pecot et al., 2018), and website quality (Wells et al., 2011; Li et al., 2015). Convincing signals can alter the receiver's perception and behavior. For instance, the website quality signals of online sellers can boost sales performance (Li et al., 2015); or brand quality signals can enhance customers' enthusiasms for price paying (Pecot et al., 2018), and their trust on brands (Erdem et al., 1998). In this study, we utilized signaling theory in mobile banking service by conveying signals of system quality, information quality, and brand equity to customers in order to increase their cognition as trust in

using mobile banking. Under the standpoint of signaling theory, the good cognition of customer results in a positive decision-making process and behaviors. Hence, besides the potential linkages between system quality, information quality, and brand equity and trust, it is also prominent to explore the next causal-effect of trust on individual performance. However, the majority of previous research has focused on customer satisfaction, adoption, and behavioral intention toward mobile banking (Geebren et al, 2021; Malaquias & Hwang, 2019; Malaquias & Hwang, 2019; Sharma & Sharma, 2019; Chung & Kwon, 2009) while very little research has focused the relationship between system quality, information quality, and brand equity and trust, especially between customer trust and individual performance. It even has larger gap which has not been filled out in examining empirically these relationships in the context of a dynamic and typical developing country. Hence, this study examined the following research model:

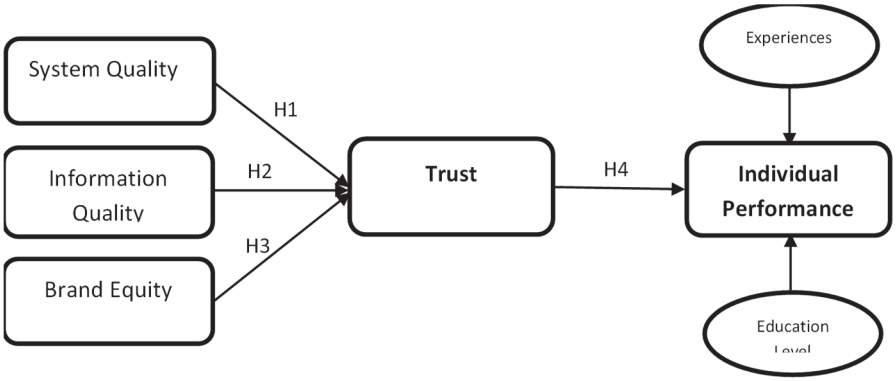

Figure 1. Proposed research model

2.2 Development of Hypotheses

2.2.1 System quality and customer trust

According to Delone & McLean (1992), system quality refers to the quality that individuals receive from a certain system's overall performance. It reflects customer interface, time of response, ease of use, reliability and steadiness (DeLone & McLean, 2003; Tam & Oliveira, 2017; Sharma et al., 2017; Zhou, 2013). As mobile banking customers do not access the system for the services directly through the bank's staffs, offices, or equipment, system quality performs "online storefront" which leads to the customers' first impressions (Lee & Chung, 2009). Previous studies show that the higher quality of mobile banking perceived, the higher trust levels of customers in the bank's ability and the higher levels of willing to spend money for that bank (Gao & Waechter, 2017; Lee & Chung, 2009). Furthermore, if consumers doubt about the quality service of the provider, customers' intention to use mobile banking service may decrease (Sharma & Sharma, 2019). Several studies have confirmed that system quality can lead to mobile banking users' trust (Lee & Chung, 2009; Zhou, 2012; Gao & Waechter, 2017). Therefore, it is possible that:

H1: The system quality has a positive influence on customer trust

2.2.2 Information quality and customer trust

In ebusiness situations, information quality is one of the most important elements influencing trust, s atisfaction, and use (Tam & Oliveira, 2017; Gao & Waechter, 2017; Sharma & Sharma, 2019). Relevance, sufficiency, correctness, and timeliness are popular indicators of information quality (Sharma &

Sharma, 2019; Chatterjee et al., 2018; Gao & Waechter, 2017). Information quality is critical in molding the online experience of users in a non-physical environment. In many circumstances, mobile banking users must rely on their gut feelings about the quality of information provided by the system (Geebren et al., 2021). Poor information quality, according to Zhou (2013), can degrade user experience since it requires users to spend a lot of time examining content. As a result, their operation becomes more complicated, lowering the user's faith in service providers. Hence, we suggest:

H2: Information quality is positively related to customer trust

2.2.3 Brand equity and customer trust

Brand equity is the differential influence of brand understanding on customer react to a brand's marketing (Srinivasan et al., 2005; Bilgihan et al., 2015; Jamshidi et al., 2018). It is an important topic and well-researched by lots of marketing practitioners and scholars. Brand equity, according to Srinivasan et al. (2005), is the result of three direct effects: (i) greater brand awareness, (ii) incremental preference due to improved attribute perceptions, and (iii) incremental nonattributive preference. Brand equity in this research is described in this study as a measure of a customer's brand attachment strength, as well as a description of the customer's beliefs and associations with the brand (Bilgihan et al., 2015). Customers' opinions of the mobile banking provider's brand were determined by their emotions and devotion to the bank, rather than by brand awareness or attributes. In fact, because a strong brand name communicates product quality, it can aid customers in distinguishing between different brands (Aaker, 2012).

Brand equity has long been regarded as a significant aspect in establishing customer trust in their purchasing decisions (Aaker, 1992). In the context of mobile banking, Zhou (2012) shows that service providers' reputation has a beneficial impact on mobile banking users' trust. Chen (2013) indicates that the mobile banking provider's brand awareness and image are important external elements influencing attitude and intention to use. Hence it is prominent to exploring the relation between Brand equity and customer trust. Thus, this research proposes the following hypothesis:
H3: Brand equity is positively related to customer trust

2.2.4 Customer trust and individual performance

Performance in mobile banking was originally stated in the success model of information systems (Delone & McLean, 1992), and is defined as "increasing my performance – or that of the department I work for" (Delone & McLean, 1992; p. 69]. Individual performance can be defined as saving time to complete tasks, improving work performance, boosting efficiency and decision-making performance, and increasing individual performance (Delone & McLean, 1992).

Performance can be interpreted in a variety of ways. Manzoor (2012) and Adler & Benbunan-fich (2012), for example, linked "performance" to "effectiveness" and "productivity." According to Hou (2012), the individual performance impact of an information system is linked to the individual's actual performance when utilizing the information system. Individual performance is measured in two ways in this study: task effectiveness and task efficiency (Tam & Oliveira, 2015). As a result, individual performance refers to how much a person may improve their own well-being by performing a specific banking task. The degree to which a single user doing a banking activity can lead to a more efficient workflow is known as task efficiency (Tam & Oliveira, 2015).

Individual performance has been used in various technological theoretical models, however it can be separated into two categories. The first category of theories includes the Information System Success Model (Delone & McLean, 1992) and the Task Technology Fit (TTF) model (Goodhue & Thompson, 1995), that individual performance as a dependent variable (called "Performance Impact") and is viewed as the result of applying information systems/information technology (IS/IT). Individual performance is also used as an independent variable in the study model structure to

explain why people choose to adopt IS/IT in the second category of hypotheses. Specifically, the Technology Acceptance Model (TAM) (Davis, 1989) with variable "Perceived Usefulness", the Model of PC Utilization (MPCU) (Thompson et al., 1991) with variable "Job fit", the Social Cognitive Theory (SCT) (Compeau & Higgins, 1995) with variable "Outcome expectations", and the Unified Theory of Acceptance and Use of Technology (UTAUT) with variable "Performance Expectation" (Venkatesh et al., 2003; Venkatesh et al., 2012). The Information System Success Model (Delone & McLean, 1992) serves as the foundation for this research, which implies that "Individual Performance" is treated as an independent variable in the research model and interpreted as the result of customers using mobile banking.

Initial trust, on the other hand, is defined as an individual's readiness to incur risks in order to meet a need without past experience or credible, meaningful information (Mehrad & Mohammadi, 2017). Ability, integrity, and benevolence are three beliefs that make up trust (Chung & Kwon, 2009; Zhou, 2012; Zhou, 2013; Geebren et al., 2021). Integrity refers to service providers' ability to maintain their promises and not cheat customers. Service providers who are benevolent look out for the interests of their customers, not just their own (Zhou, 2013).

Many researchers have suggested that trust is a dynamic factor that is simple to modify, difficult to obtain (Chung & Kwon, 2009), but also easy to lose (Geebren et al., 2021) in the context of mobile banking due to the following features: no direct contact, and potential dangers in the transaction process (e.g. disclosure of personal information, fraud, transaction failure, etc.). Banks must, however, create and strengthen consumer trust, as trust is a major factor in influencing mobile banking users' attitudes, behaviors, and post-use attitudes (Chung & Kwon, 2009; Mehrad & Mohammadi, 2017; Alalwan et al., 2017; Malaquias & Hwang, 2019). Consumers who trust Web-based service providers are more likely to engage in "trust-related behaviors" (such as providing personal information, making purchases, and so on) (McKnight et al., 2002). We emphasize on first trust in this study because, with new technology application services in developing nations, mobile banking service providers must build enough trust to encourage first-time customers to transact with them (McKnight et al., 2002).

In terms of the importance of consumer trust, it has long been recognized as a vital aspect in human social relationships, as evidenced by past research in fields such as education, office, and business (Pachler et al., 2019; Goris et al., 2003; Liu et al., 2019). Trust is a mediating component in detecting and eliminating disputes in groups, according to Liu et al. (2019). This improves large-scale group decision making. Goris et al. (2003) offered evidence that confidence in superiors is one of the predictors of performance and satisfaction. According to Pachler et al. (2019), the association between transformative teaching and enhanced study engagement, student inventiveness, and task performance was mediated by trust in the lecturer. These findings support the following claim: in a social interaction, one party's trust in the other can help to reduce conflicts, encourage the other party to confidently participate in and conduct necessary tasks, and therefore improve individual and/or group performance and effectiveness. As a result, we came up with the following hypothesis:

H4: Customer trust is positively related to individual performance

3. Material and Methods

3.1 Measures

All of the questionnaire items were modified from previous research and were evaluated using a seven-point Likert scale from 1 (totally disagree) to 7 (totally agree). The structure model included three exogenous variables (Quality information, Quality system, Brand equity), two endogenous variables (Customer's trust, Individual performance). The measures of “Information Quality” and “Quality system” were inherited from Tam & Oliveira (2017), whereas “Brand equity” rooted from Jamshidi et al. (2018). The variable “Trust” included 4 items that adopted from the study of Mehrad & Mohammadi (2017) and one item from the study of Alalwan et al. (2017). “Individual performance” included three

items that adapted from Tam & Oliveira (2017) (Appendix).

3.2 *Data Collection*

Following the development of the questionnaire, we conducted a preliminary study with a sample size of 50 students to assess the scale's reliability. The received data was then analyzed and Cronbach's alpha coefficient for all variables were greater than 0.70, indicating that reliability is assured (Nunally & Bernstein, 1978).

This empirical study focuses on individual customers who are in the age of 18-40. According to Goi & Ng (2011), young customers are more receptive mobile commerce applications. Therefore, mobile banking service providers should focus on this customer group (Boonsiritomachai & Pitchayadejanant, 2019).

The questionnaire was first written in English, translated into Vietnamese, and then translated back into English. The two versions of the questionnaire were compared to make sure that Vietnamese and English questions conveyed the same meaning, and both were made available to participants.

The survey has collected totally 381 responses which include 205 online responses and 176 offline responses . In order to objectively assess the customer's trust and efficiency in using mobile banking, this study eliminated responses from customers who have less than one year experience in using mobile banking. In addition, the present study also focuses on individual customers who are in the age of 18-40. Based on these requirements, the number of responses qualified for this study was 297 (Table 1).

A power analysis was performed using G*Power 3.1 software to evaluate whether the sample was large enough for the data processing (Faul et al., 2007). With type-1 error probability of 0.05, a sample size of 192 was needed for a modest effect size of 0.15. As a result, the sample size of this study is sufficient to verify that the statistical method's conclusions are reliable (Reinartz et al., 2009; Hair et al., 2016).

Table 1. Profile of respondents

Demographic	Categories	Frequency	Percentage
Gender	Male	106	35.7%
	Female	191	64.3%
Age	18-30	261	87.9%
	31-40	36	12.1%
Income per month (million of VND)	< 10	210	71.4%
	11 – 20	53	17.8%
	21 – 30	13	4.4%
	31 – 40	11	3.7%
	> 41	8	2.7%
Mobile banking Experience	1 – 5 years	256	86.2%
	> 5 years	41	13.8%
Education Level	High school or lower	32	10.8%
	Bachelor	242	81.5%
	Master	18	6.1%
	Doctor/PhD	5	1.7%
Intensity of using mobile banking	Everyday	81	27.3%
	Every week	135	45.5%
	Every month	78	26.3%
	Others	3	1.0%

The majority of respondents are male (64.3%) and from 18 to 30 years old (87.9%) because they are

more technology-friendly and use mobile banking (Sharma & Sharma, 2019). In this survey sample structure, 81.5% of the respondents have a bachelor's degree and 6.1% of the people have a master's degree or higher.

4. Results

4.1 Assessment of Measurement Model

Figure 2. The Measurement Model

4.2 Reliability and convergent validity

PLS-SEM SmartPLS 3.2.9 software was used to assess the measurement of the study (Ringle et al., 2015). The reliability, convergent validity, and discriminant validity of the measuring model are all evaluated. This study's measurement model contained five reflecting constructs, as shown in the diagram above. Table 2 shows the results of the measurement model assessment using these criteria, indicating that the measurement model has qualified reliability and convergent validity.

Table 2. Assessment of measurement model

Constructs and items	Outer loadings	Cronbach's Alpha	CR	AVE
Brand Equity (BE)		0.926	0.948	0.819
BE1	0.890			
BE2	0.940			
BE3	0.898			
BE4	0.891			
Information quality (INFQ)		0.898	0.922	0.663
INFQ1	0.788			
INFQ2	0.841			
INFQ3	0.703			
INFQ4	0.836			
INFQ5	0.875			
INFQ6	0.831			

Constructs and items	Outer loadings	Cronbach's Alpha	CR	AVE
System Quality (SYSQ)		0.924	0.956	0.880
SYSQ1	0.846			
SYSQ2	0.865			
SYSQ3	0.906			
SYSQ4	0.888			
SYSQ5	0.870			
Trust (TR)		0.905	0.930	0.726
TR1	0.848			
TR2	0.817			
TR3	0.839			
TR4	0.901			
TR5	0.851			
Individual Performance (IP)		0.932	0.956	0.880
IP1	0.929			
IP2	0.951			
IP3	0.934			

4.3 Discriminant validity

The hetrotrait–monotrait (HTMT) ratio (Hair et al., 2016; Henseler et al., 2015) is used to assess the discriminant validity of the constructs in this investigation. The results present in Talbe 3 show that all the HTMT values were below the threshold value of 0.85, evidencing the discriminant validity (Henseler et al., 2015).

Table 3. Discriminant validity though HTMT

Constructs	Brand Equity	Education Level	Experience	Individual Performance	Information Quality	System Quality
Education Level	0.040					
Experience	0.164	0.132				
Individual Performance	0.489	0.079	0.154			
Information Quality	0.548	0.037	0.072	0.544		
System Quality	0.535	0.020	0.034	0.588	0.750	
Trust	0.617	0.115	0.068	0.664	0.722	0.790

4.4 Assessment of structural Model

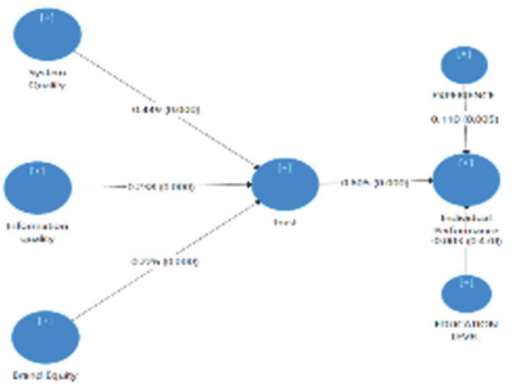

Figure 3. The Structure Model

The multi-collinearity Varriance Inflation Factor (VIF) for all constructs and the R^2 of the endogenous constructs were used to evaluate the structural model and hypothesis testing. The t-value and 95 percent percent bias-corrected confidence intervals were also analyzed to determine significance (Hair et al., 2019). All constructs had a VIF of less than 5 (range: 1.014-2.031), which was considered acceptable (Hair et al., 2016).

The findings of the structural model assessment and hypothesis testing are presented in Table 4 and Figure 3. All of the research hypotheses are supported by the findings. There are strong effects of "system quality" on trust (H1), "information quality" on trust (H2), and "brand equity" on trust (H3). Individual performance (H4) is also highly influenced by trust. As a result of this research, the bank may boost customer trust by enhancing system quality, information quality, and brand equity, which will result in higher individual customer performance when utilizing mobile banking.

For all endogenous variables in the model, R^2 values are calculated. The coefficient of determination (R^2) reveals the extent to which the variation of the endogenous variable is explained by the exogenous variables (Hair et al., 2016). Table 4 reports the coefficient of determination (R^2) reaching 0.610 and 0.386 respectively for the two endogenous variables "trust" and "individual performance". This shows the strong explanatory power of the model, the factors in the model have explained a significant part of the variation of "trust" and "individual performance".

Table 4. Hypotheses Testing

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	CI.BC		Supported
						LL (5.0%)	UL (95.0%)	
H1. Brand Equity →Trust	0.226	0.226	0.061	3.720	0.000	0.132	0.333	Yes
H2. Information Quality → Trust	0.238	0.240	0.068	3.523	0.000	0.128	0.353	Yes
H3. System Quality → Trust	0.449	0.448	0.067	6.721	0.000	0.339	0.558	Yes
H4. Trust → Individual Performance	0.605	0.605	0.051	11.802	0.000	0.515	0.683	Yes

5. Discussion

The purpose of this research is to determine the importance of "trust" in the mechanism that influences individual performance of mobile banking users. Our model explains 61.0% of the variation in "trust" among mobile banking users and 38.6% of the variation in "individual performance". When compared to numerous other previous research on the trust of mobile banking users, this demonstrates the model's strong explanatory ability (Cohen, 1988). Previous study models suggested by (Malaquias & Hwang, 2016), Lee & Chung (2009), and Zhou (2012).

Table 4 further shows that, with a path coefficient of 0.605, "trust" has the largest direct positive impact on "individual performance" of mobile banking customers. As a result, an increase in mobile banking customers' trust can lead to an improvement in their individual performance. For instance, if customers feel that mobile banking services are designed to assist customers and banks in achieving their goals by delivering dependable and secure mobile banking services while believing that technology and legal platforms will help them rapidly resolve transactional issues, they will use mobile banking more frequently and in more diverse ways in their job and personal lives. This finding is consistent with prior studies on the impact of "trust" on "individual performance" in the sectors of education (Pachler et al., 2019) and workplace governance (Goris et al., 2003). However, it is firstly found that "trust" is also a direct antecedent of "individual performance" among mobile banking users. There have been no previous studies analyzing the relationship between "trust" and "individual performance" after utilizing mobile banking (Tam & Oliveira, 2016; Tam & Oliveira, 2017; Tam & Oliveira, 2019).

Table 4 also shows the direct effects of "system quality," "information quality," and "brand value" on "trust" among Vietnamese mobile banking clients. With a path coefficient value of 0.449, "system quality" has the greatest significant positive impact on "trust," followed by "information

quality" with a path coefficient value of 0.238. This result is partially consistent with previous studies on users' trust in the context of e-commerce (Lee & Chung, 2009; Zhou, 2012; Gao & Waechter, 2017), but there is still a difference because "information quality" is the factor that has the strongest positive impact on users' trust in these studies, followed by "system quality." This can be explained by the historical context, in which mobile banking has actually permeated and evolved quickly in Vietnam over the last ten years, despite the fact that the penetration rate of mobile banking is not very high (Degenhard, 2021b). When there is a lack of experience, mobile banking users in Vietnam expect their mobile banking applications' characteristics of simple to use, well-structured and useful informative features. If mobile banking applications meet those requirements, the users will have higher faith in the ability, integrity, and generosity of mobile banking providers. Apart from "system quality", mobile banking users in Vietnam are also concerned about "information quality". They expect to obtain precise and timely information in order to prevent receiving potentially erroneous information, such as incorrect account balance information following a transaction (Zhou, 2012). Customers may expect diverse, complete, and relevant information about product and service through mobile banking applications, which will make the process of discovering and using banking service easier for them. Customers' trust in mobile banking will improve as a result of this, but it will need significant work, time, and resources on the part of service providers.

The study findings also demonstrate that brand equity has significant impact on customers' trust in mobile banking, with a path coefficient value of 0.226. This means that the better brand reputation of mobile banking provider, the more clients trust the bank's service. This finding harmonizes with study of Zhou (2012), which found that a bank's reputation boosts consumers' trust when they use mobile banking. This conclusion mirrors the reality in Vietnam, where the majority of commercial banks that clients trust and choose to use mobile banking applications are large, well-known banks. Mobile banking, on the other hand, is seen as a strategic path in the development of the industry.

6. Implications

This research has real-world ramifications for bank executives in Vietnam. To begin with, performance has been found to be one of the motivators for utilizing mobile banking (Tam & Oliveira, 2019), as well as a metric of information system success (Delone & McLean, 1992; DeLone & McLean, 2003). The findings of this study help managers make crucial strategic decisions by providing an understanding of the mechanisms that influence determinants on mobile banking users' trust and personal performance. Second, while 81 percent of the Vietnamese population owns a smartphone, just 27.83 percent of the population uses online banking in 2025 (Degenhard, 2021a), indicating that mobile banking is still in its infancy in Vietnam. Even though the mobile banking market is modest, it has a lot of potential and plenty of room for expansion. It may be claimed that this is a similar situation in many developing nations since people are still fearful of mobile banking and are unaware of its reliability, utility, time savings, and ease of use (Sharma & Sharma, 2019). As a result, the study's findings are extremely valuable in assisting banks in developing a plan to attract more mobile users to utilize mobile banking service in the future by improving individual performance.

Since the findings of this study reveal that trust is a critical aspect in improving the individual performance of mobile banking users, we propose the following implications:

First and foremost, users' trust in mobile banking must be increased. Mobile banking transactions must be efficient and secure, as well as taking less time than traditional transactions. In addition to traditional mobile banking services (QR pay, wire transfer, monthly service bill payment, online deposit, etc), banks can diversify services on mobile banking channels to better meet a wider range of client needs. Banks, on the other hand, must develop a system (technological and legal base) to protect customer information and address any issues that arise throughout the transaction process in order to reduce customer risks. Consumers will benefit from these initiatives as they become more

aware of mobile banking service providers' competence, generosity, and integrity.

Second, system quality of mobile banking apps should be improved by several solutions: guaranteeing convenient accessibility, increasing the mobile banking application's simplicity of use and navigation, improving the ability to access and search for information about the bank's mobile banking application's services.

Third, quality of information of mobile banking apps should be paid attention. In addition to ensuring that the information provided on the mobile banking application is always accurate, reliable, up-to-date and complete, banks can personalize customer information through the introduction of information and services are relevant to the user based on the customer's usage profile and preferences. This will help improve customers' trust in mobile banking, motivate them to use more services and increase work efficiency.

Fourth, banks' managers should understand the role of the brand in increasing customer satisfaction, from which there are solutions to increase the brand value of the bank in the field of mobile banking. It is critical for banks to focus on improving the quality, convenience, efficiency, and security of mobile banking transactions in order to boost their capacity to establish and differentiate brands in the minds of customers. Furthermore, brand communication efforts are critical for improving the bank's popularity and brand recognition, such as through the use of appealing films on social media sites like YouTube, Facebook, etc.

7. Conclusion

The results of this study once again confirm and reinforce the value of signaling theory (Spence, 1973) in explaining customer behavior when receiving signals from mobile banking providers. Accordingly, the positive signals about mobile banking provider's system quality or brand play a positive role in the perception of users, thereby creating a solid premise for the use of mobile banking service to increase individual performance.

The novel theoretical contribution in this study's findings, in particular, manifests itself in two ways: First, after using mobile banking, "trust" has been shown to have a strong and positive direct impact on users' individual performance. Second, this study stresses young Vietnamese customers' comprehension of critical signals that affect their trust in mobile banking. Among those signals, the most notable and crucial component is "system quality". Furthermore, we showed for the first time that brand equity has a direct impact on mobile banking users' trust.

These contributions will aid researchers and managers in better understanding the incentives that lead to higher "trust" and "individual performance" after utilizing mobile banking in an emerging economy where mobile banking is still in its infancy.

Aside from the findings, there are other limitations to this study: Firstly, because this study's data was gathered utilizing a cross-sectional research strategy, more longitudinal investigations are needed to assess and improve the generality of the findings in this research model. Second, this research is limited to youthful customers (aged 18-40). Although this is the key mobile banking client base (Boonsiritomachai & Pitchayadejanant, 2019), it is argued that this customer group is not reflective of the intended population (Agawal & Karahanna, 2000). As a result, future studies could be more thorough in order to investigate the differences in the impact of factors on customer satisfaction among different customer groups. Third, this research was conducted solely in a developing country (Vietnam). In order to generalize our findings, this research paradigm needs to be replicated in other nations, particularly industrialized countries. Using the model to compare findings in industrialized and developing nations could be beneficial in future research.

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Appendix A

Variables	Code	Items	Source
1. Information quality (INFQ)	$INFQ_1$	M-banking provides the information, that is helpful	Tam & Oliveira (2017)
	$INFQ_2$	M-banking provides the information, that is understandable	
	$INFQ_3$	M-banking provides the information, that is interesting	
	$INFQ_4$	M-banking provides the information, that is reliable	
	$INFQ_5$	M-banking provides the information, that is complete	
	$INFQ_6$	M-banking provides the information, that is up-to-date	
2. System quality (SYSQ)	$SYSQ_1$	M-banking is simple to use	Tam & Oliveira (2017)
	$SYSQ_2$	M-banking enables me to quickly locate the information I require.	
	$SYSQ_3$	M-banking is well-organized.	
	$SYSQ_4$	M-banking is simple to operate.	
	$SYSQ_5$	M-banking provides the necessary features.	
3. Brand equity (BE)	BE_1	Even though the banks are the same, it makes sense to use mobile banking with this one.	Jamshidi et al. (2018)
	BE_2	Even if another bank's mobile banking has the same services, I prefer to utilize this bank's mobile banking.	
	BE_3	I prefer to utilize mobile banking through this bank if there is another brand that is as excellent as this bank-mobile banking.	
	BE_4	I prefer to utilize mobile banking through this bank unless there is another brand that is as good as this bank's mobile banking.	
4. Trust (TR)	TR_1	I believe that mobile banking is a trustworthy service.	Mehrad & Mohammadi (2017); Alalwan et al. (2017)
	TR_2	To assist customers, a mobile banking solution has been developed.	
	TR_3	In the sphere of mobile banking, I believe the banks are meeting their commitments.	
	TR_4	I'd put my trust in my bank to provide safe mobile banking.	
	TR_5	I am confident that legal and technological structures will effectively safeguard me from mobile banking issues.	
5. Individual performance (IP)	IP_1	I am able to do things more quickly thanks to mobile banking.	Tam & Oliveira (2017)
	IP_2	Mobile banking facilitates the completion of duties.	
	IP_3	My job necessitates the usage of mobile banking.	