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Factors influencing the intention to use m-commerce in Malaysian: an extended IS success model

Moussa Barry, Ahasanul Haque, Muhammad Tahir Jan
Department of Business Administration, Kulliyyah of Economics and Management Sciences,
International Islamic University Malaysia, Kuala Lumpur, Malaysia

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ABSTRACT

The progress of mobile technology has undergone substantial development in recent years, leading to the emergence of new and creative ideas. This paper investigates the factors influencing consumers' intentions to use mobile commerce in Malaysia. The DeLone and McLean updated information system success model served as the basis for this study's proposed model. A convenience sampling method was employed to collect 310 surveys from smartphone owners who conduct mobile commerce activities in Malaysia. A "two-stage structural equation modeling" (SEM) technique assessed the research model and the study's assumptions. The findings revealed that "information quality", "service quality", "system quality", and "trust" significantly influence consumers' "intention to use mobile commerce in Malaysia". The findings further reveal that "system quality" is the strongest factor influencing the "intention to use mobile commerce in Malaysia". Therefore, the research outcomes will benefit academicians, researchers, policymakers, and practitioners in the mobile commerce industry in Malaysia. To the best of the authors' knowledge, this is the first empirical study that expanded the "information system success model" by including "trust" in the context of Malaysian mobile commerce users' "intentions". However, further research is recommended to explore the factors influencing consumers' "intention to use mobile commerce in Malaysia".

Corresponding Author:

Moussa Barry
Department of Business Administration, Kulliyyah of Economics and Management Sciences
International Islamic University Malaysia
Jalan Gombak, 50728 Kuala Lumpur, Malaysia
Email: barrymoussa4@gmail.com

1. INTRODUCTION

The growth of mobile technology has accelerated innovation by Ghazali *et al.* [1], leading to widespread usage of mobile devices for services like payments, commerce [2], and social networking by Asampana *et al.* [3]. These devices offer flexibility, affordability, and increased accessibility by Saprikis *et al.* [4], making them the primary method for commercial transactions in both emerging and developed nations by Jain *et al.* [5]. Mobile commerce has become a new business phenomenon, making communication simpler and faster for businesses by Sarkar *et al.* [6]. Wireless communication has significantly impacted global communication and economic growth, with a 10% increase in mobile commerce subscriptions and a 0.8% gross domestic product (GDP) increase [7]. The mobile cellular market has experienced the fastest growth in the telecommunications sector. With over 8.27 billion people using mobile phones and 6.5 billion using smartphones, the trend is expected to continue. The International

Telecommunication Union reported that 63% of the world's population used the Internet in 2021, with social media users comprising 4.65 billion [8].

Nevertheless, the advantages of mobile shopping can often be hindered by apprehension and unease stemming from the utilization of technology, leading to a lack of desire and hesitation to participate in mobile buying transactions Yahaya *et al*. [9]. Malaysia's population of 32.78 million uses mobile internet, with 89.53% using it. Nearly 20 million Malaysians shop using mobile devices, with 62% using them for transactions [10]–[12]. Mobile shopping is expected to account for $5.6 billion in consumer sales by 2021, growing at a 31.4% compound annual rate. Malaysia's mobile commerce adoption is low, with 66.4% of internet users aged 16-64 made online smartphone purchases in the 2020 fiscal year [12]. Despite rapid technological development, mobile commerce penetration is relatively low compared to "Indonesia", "Thailand", and the "Philippines", with 68.4% of the population engaging in mobile commerce activities [13]. Malaysia's e-commerce adoption rate reached 80% in 2021, with a large internet user population and high mobile phone penetration. However, Commission Factory [11] further states that mobile commerce accounts for only 55.9% of all e-commerce transactions, indicating a low number of mobile commerce transactions.

"Mobile commerce" has significantly impacted businesses and consumer convenience. However, research on customers' behavioral intentions and acceptance of mobile technology in Malaysia is limited. Mobile shopping in Malaysia is nascent, with 32% of customers making online transactions using mobile phones. However, local customers' perceptions remain uncertain, and few studies have examined customer intention Chan *et al*. [14]. Therefore, this study aims to "investigate factors influencing customers' intention to use mobile commerce", highlighting the impact of "system quality", "information quality", "service quality", and "trust" on the "intention to use mobile commerce in Malaysia". The "information system success model" is employed with trust as an additional variable while previous studies such as Chan *et al*. [14] investigated the "intention and adoption of mobile shopping during the COVID-19 pandemic". However, their study did not include trust as a variable that may influence Malaysian consumers' "intention to use mobile commerce".

Mobile commerce, often known as m-commerce, uses portable mobile devices to engage in electronic business activities. The industry has experienced substantial expansion because of factors such as enhanced technology, user-friendly interfaces, and digital payment systems [15]. The growth of mobile commerce has resulted in the development of mobile electronic commerce information systems, namely inside industry clusters Liu *et al*. [16]. The adoption of m-commerce is significantly influenced by consumer behavior, particularly among Generation Z, who exhibit a pronounced inclination toward it [17], [18]. Mobile social commerce, combining mobile and social components, enhances traditional e-commerce by providing additional benefits [19]. The "COVID-19 epidemic" has expedited the expansion of m-commerce, mostly due to factors such as enhanced internet speed, the implementation of 5G and Wi-Fi networks, and increased confidence in mobile devices and applications [20].

Information system success model (ISSM); Several theories have been proposed to comprehend consumers' "intention to use information system technology". However, the "information system success model (IS success model)", was created to assess the effectiveness of "information systems" (IS). The model introduces six key constructs: "individual impact", "organizational impact", "system quality", "information quality", "user", and "user satisfaction". The model has received widespread acceptance and has been chosen as an adequate foundation for additional theoretical and empirical studies [21]. The concept, however, is widely acknowledged and utilized in IS studies. However, numerous researches in mobile commerce employed the IS success model [22]–[25].

Therefore, this study attempts to study the relationships among factors such as "service quality", "information quality", "system quality", "trust", and "intention to use mobile commerce". A research framework based on the modified "IS success model" will be proposed to achieve this objective. However, the variables of this study are chosen through the review of the previous study on the "IS success model" by different scholars. Therefore, the research model from Figure 1 shows that the independent variables are "system quality", "information quality", "service quality", and "trust", while the "dependent variable" is the "intention to use mobile commerce" (see Figure 1).

Intention to use mobile commerce; "Intention" to use refers to "an individual's subjective probability that he or she will perform a specified behavior" [26]. According to Davis [27], a person's "behavioral intention" influences their willingness to use and continue their technology use which also influences how they use it. Venkatesh *et al.* [28] agreed that "behavioral intention refers to the motivational factors that influence a given behavior where the stronger the intention to perform the behavior, the more likely the behavior will be performed".

In the context of "mobile commerce", "intention to use mobile commerce refers to consumers' perceived likelihood of using a certain innovation" like mobile commerce [29], [30] define "intention to use

mobile commerce" as the potential for a user of mobile commerce to complete online transactions using "mobile commerce". As a result, the researcher's definition of "intention to use mobile commerce" in this study refers to the possibility that a user will use mobile commerce to make online transactions [31]. Additionally, according to Kitjaroenchai and Chaipoopiratana [32], the likelihood that a buyer will keep purchasing from the same online vendor is known as online purchase intention.

Information quality is related to the semantic level and the information product attributes such as correctness, meaningfulness, and timeliness. The features and output characteristics of an information technology (IT) application are referred to as the "information quality" of that application [33], [34] asserts that the timeliness, consistency, relevance, appropriateness, format, and correctness of the information provided to end users by an IT application are also factors in "information quality". Information in mobile commerce should be accurate, timely, full, and up to date. Thus, the information offered to customers is impacted in several different ways by "information quality". "Information quality refers to the information that the user values" by Gani *et al.* [35].

According to Walker *et al.* [36], "information quality" can also be described as current, good, valuable, and accurate information. They further state that consumers become more distracted and must work harder to digest low-quality information. If the app's designer fails to deliver correct and up-to-date information, the end user will lose faith in it and stop using it. The websites or apps for mobile commerce would be of high quality and provide users with accurate, up-to-date information. Users lose motivation when they must put in a lot of time and effort to find information, which reduces their "intention to use mobile commerce apps or websites" by Gao *et al.* [37]. Therefore, based on the aforementioned literature, a hypothesis is proposed: H1: information quality positively influences the intention to use mobile commerce.

System quality; Since the COVID-19 issue started, consumers' purchasing patterns have changed, and they now rely more frequently on mobile applications. As a result, companies now prioritize shifting to e-commerce mobile platforms and change their websites accordingly [38]. According to researchers, "system quality" significantly affects consumers' "intentions to use mobile commerce" [39]–[41]. Additionally, studies from [42] and [43] showed that "system quality" strongly affects the "intention to use mobile commerce". For instance, Hossain *et al.* [42] found that "system quality" is one of the primary factors influencing system use. They also found that "service quality" has a substantial impact on system use. Similarly, Dongmo [43] investigated mobile commerce adoption in developing countries, and their findings suggested that "system quality" substantially impacts mobile commerce's "adoption intention" through trust. They also discovered that "system quality" is one of the most crucial factors influencing mobile commerce adoption intention [43]. Therefore, based on the aforementioned literature, a hypothesis is proposed: H2: system quality positively influences the intention to use mobile commerce.

Organizations have begun to prioritize "service quality" more heavily in today's customer-focused business environments. However, a customer's perception of a company is ultimately influenced by the quality of service they receive [44]. Their decision to make purchases will continue to be influenced by this in terms of frequency and frequency. To understand and enhance "service quality", its components must be measured and identified because customers frequently check the quality of a product before buying it. On occasion, consumers examine both price and quality before making a purchase. Customers look for quality to improve both the products' longevity and safety [45].

Researchers say "service quality" significantly affects consumers' "intentions to use mobile commerce" [46], [47]. For instance, a study conducted by Wang *et al.* [47] revealed that "service quality" influences the "intention" of mobile commerce in a positive way. Similarly, Lin *et al.* [48] found that the adoption of online food delivery mobile apps is significantly influenced by "service quality". In addition, Sani *et al.* [49] maintained that service excellence influences customer loyalty, enhancing mobile commerce adoption. Therefore, based on the aforementioned literature, a hypothesis is proposed: H3: service quality positively influences the intention to use mobile commerce.

"Trust is the state of being willing to expose oneself to the acts of another party, with the expectation that they will carry out a certain activity that is vital to the person placing their trust, regardless of their ability to oversee or control that other party" [50]. Various researchers have investigated the influence of "trust" on the "intention to use mobile commerce". For instance, the researchers [50], [51] discovered that trust substantially impacted the desire to continue using a "product" or "service". Acheampong *et al.* [51] notably emphasized the importance of vendor reputation and word-of-mouth in this regard. Chin *et al.* [52] and El-Ebiary *et al.* [53] underscored the significance of trust, with Chin *et al.* [52] highlighting its influence on perceived benefit and El-Ebiary *et al.* [53] indicating its contribution to "purchase intention". Sim *et al.* [54] examined the influences on trust, emphasizing institutional systems' significance. Sleiman *et al.* [55] and Vărzaru *et al.* [56] have established that trust is crucial in determining behavioral intention. Vărzaru *et al.* [56] additionally emphasize the impact of "perceived usefulness" and "convenience", while Sleiman identifies government surveillance, reputation, and security as essential elements in establishing trust.

Therefore, based on the aforementioned literature, a hypothesis is proposed: H4: trust positively influences the intention to use mobile commerce.

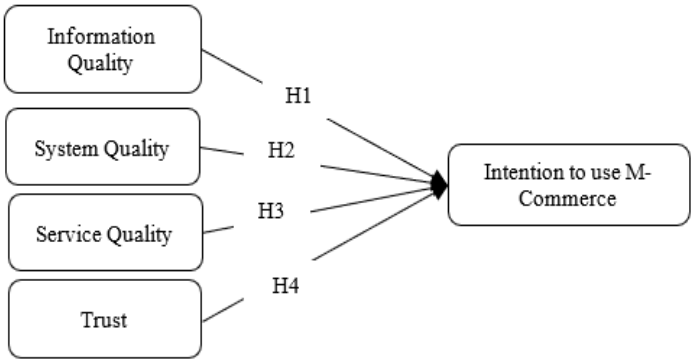

Figure 1. The research models

2. METHOD

This study employed a cross-sectional methodology and collected quantitative data to evaluate the influence of several factors on customers' "intention to use mobile commerce". The survey comprised Malaysian consumers aged 18 years or above. The selection of this age group is based on their demonstrated tendency to allocate a greater amount of time engaging with mobile devices, which has been consistently documented [7]. A self-administered survey was physically distributed to 310 smartphone users who engage in "mobile commerce" transactions in the "Klang Valley" region of Malaysia, specifically at retail malls, metro stations, and select universities. The rationale behind selecting the "Klang Valley" is that it potentially encompasses Malaysian mobile commerce users Vaithilingam *et al.* [57], as they reside in such places. The participants were selected using a convenient sampling method. Data collection for this "cross-sectional survey" took place from "August to September 2023". The study utilized a methodology that involved a minimum of five observations for each indicator, as recommended by Ho [58] since the number of items is twenty-five (25).

2.1. Survey instrument

The items utilized in the suggested study model were modified from earlier investigations into ISSM where their "Internal and convergent validity" have been effectively evaluated in earlier studies. Particularly, six items were used to test SYQ, five were used to test IFQ and SVQ, and four were used for INT. However, these items were adapted from Danso *et al.* [59] and modified to match the present study. The IS model and related works by Mkinga and Mandari [60] were utilized as the basis for six items that were used to measure SYQ and five for both IFQ and SVQ. Four items from Danso *et al.* [59] and related works from Mkinga and Mandari [60] were used to measure INT. These questions were attached on a "five-point Likert scale", ranging from 1 "Strongly Disagree" to 5 "Strongly Agree". However, two "screening questions" were included in the "questionnaire" to disqualify those who do not conduct mobile commerce transactions with their smartphone.

2.2. Data analysis method

"Statistical package for social sciences" (SPSS) and "analysis of momentum structure" (AMOS) software were used to conduct the data analysis. Before the main data collection for analysis, the survey's face validity was assessed by requesting research assistants and faculty members to review the "instrument" and provide feedback. The survey tool has been enhanced with essential improvements. In addition, a "pilot study" was conducted. Then, a two-stage "structural equation modeling" (SEM) was undertaken, as Anderson and Gerbing [61] strongly recommended. "Confirmatory factor analysis" (CFA) was employed in the initial stage to assess the model's fitness, validity, and reliability of the proposed research framework. The proposed model was then examined using structural equation modeling Hair *et al.* [62] with the help of AMOS software.

3. RESULTS AND DISCUSSIONS

3.1. Demographic profile of the respondents

A convenience sample of 310 Malaysia mobile commerce users who were given the questionnaire returned 306 of them, showing a high response rate of 98.71%. Due to incomplete responses and missing data, the study employed only 300 surveys for data analysis. These had a mean age range of 28 to 37, with 46.3% of the total respondents being 49.7% male, 50.3% female, and 94.3% Malaysian. In addition, 64.7% of them are not married, and 39% of them are pursuing their bachelor's degree. The results of the "demographic profile" of the respondents are presented in Table 1.

Table 1. Demographics profile of the respondents

Demographic variables		Research Sample (n = 300)	
		Frequency	Percentage (%)
Gender	Male	149	48.7
	Female	151	50.3
Age	18-27	53	17.7
	28-37	139	46.3
	38-47	67	22.3
	48-Above	41	13.7
Nationality	Malaysian	238	94.3
	Non-Malaysian	17	5.7
Marital Status	Single	194	64.7
	Married	106	35.3
Level of Education	High School	41	13.7
	Diploma	28	9.3
	Bachelor	117	39.0
	Master	84	28.0
	PhD	30	10.0

3.2. Reliability analysis

Table 2 shows the results of the "reliability" of the constructs employed in the study with their respective number of items. Table 2 illustrates the "reliability analysis" of the study. Table 2 shows that information quality has a reliability of 0.720 with 5 items, system quality is 0.959 with 6 items, "services quality" is 0.950 with 5 items, trust 0.973 with 5 items, and intention has 0.907 with 4 items (see Table 2).

Table 2. Reliability analysis

Variable	Cronbach's Alpha	Number of items
Information Quality	0.720	5
System Quality	0.959	6
Service Quality	0.950	5
Trust	0.973	5
Intention	0.907	4

3.3. Descriptive analysis

Regarding the descriptive analysis as recommended by Zida *et al.* [63], the findings in Table 3 demonstrate that all the questionnaire's mean values were higher than the midpoint (2.5), indicating that respondents' reactions to the measured items were favorable. Table 3 shows that "system quality" has a standard deviation of 1.091 with a mean value of 3.74, intention has a standard deviation of 1.032 with a mean value of 3.73, "service quality" has a "standard deviation" of 1.034 with a mean value of 4.03, "information quality" has a "standard deviation" of 1.118 with a mean value of 3.44, and "trust" has a "standard deviation" of 1.137 with a mean value of 3.66. Therefore, the mean values range between 3.44 and 4.03, and the "standard deviations" were 1.032 to 1.137, indicating a close range around the mean (see Table 3).

Table 3. Descriptive statistics if the constructs

Construct	Mean	Standard Deviation
SYQ	3.74	1.091
INT	3.73	1.032
SVQ	4.03	1.034
IFQ	3.44	1.118
TRT	3.66	1.137

3.4. Bartlett's tests and the Kaiser-Meyer-Olkin of sphericity

"Bartlett's tests and the Kaiser-Meyer-Olkin" (KMO) measure were utilized to assess the "unidimensionality" of the scales (refer to Table 4). The sphericity tests yielded p-values less than 0.001 for all seven sample groups. Furthermore, the sample adequacy was corroborated by values of 0.854.

Table 4. Bartlett's tests and KMO

Bartlett's tests and KMO		
KMO Sampling Adequacy Measurement		0.854
Sphericity Test	Approx. Chi-Square	7187.536
	Degree of Freedom	861
	Significance	0.000

3.5. Analysis of measurement mode: examination of reliability and validity

The correlations between the suggested elements in the study model were examined using CFA based on AMOS 23.0 [64]. The model's parameters were estimated using the maximum-likelihood estimation approach, and all analyses were done using variance-covariance matrices. A few fit indices are employed to evaluate the model's "goodness-of-fit". "Root-mean-square residuals" (RMSR), "root mean square error of approximation" (RMSEA), "comparative fit index" (CFI), "goodness-of-fit index" (GFI), and "normed fit index" (NFI) are some examples of these indices [65]. After the model fit was improved, Table 5 displays the level of accepting fit and the fit indices for our sample on the "measurement and structural model". The Table shows that all fit indices are met since the trucker-Lewis index (TLI), GFI, and CFI are all above 0.90. The "normed chi-square" (χ^2/df=2.817) is less than the threshold value of 3, and the "root-mean-square error of approximation" (RMSEA=0.078) is less than the cut-off points of 0.08 for the "structural models".

Table 5. Model fit summary for final measurement model and structural model

Fit Index	Recommended Value	Measurement Model	Structural Model
$\chi^{2/df}$	<5, preferable <3	2.056	2.817
Goodness-of-Fir Index (GFR)	>0.90	0.966	0.949
Adjusted Goodness-of-Fit Index	>0.80	0.857	0.819
Comparative Fit Index (CFI)	>0.90	0.971	0.949
Root Mean Square Error of Approximation (RMSEA)	>0.08	0.059	0.078
Trucker-Lewis Index (TLI)	>0.90	0.971	0.941
Parsimony Normed Fir Index (PNFI)	>0.60	0.799	0.92

Some unobserved variables are correlated to enhance the model fit (See Figure 2). The table shows that each fit index was within the suggested range. To determine whether the psychometric features of the measurement model are sufficient, we can, therefore, move on to analyze "convergent validity", "discriminant validity", and "reliability".

As recommended by Kimani and Scott [64], the "reliability", "convergent validity", and "discriminant validity" were evaluated using "composite reliability" (CR) and "average variance extracted" (AVE). According to Kimani and Scott [64], the CR should be above 0.7 to demonstrate good reliability, the AVE should be above 0.5, the CR should be greater than the AVE to demonstrate "convergent validity", and the combined AVE of the average value of the variables should be greater than the correlation value to demonstrate "discriminant validity". The findings in Table 6 show that each of the constructs had AVE above 0.560 and 0.792 for CR. This indicates that the constructs had sufficient "reliability and convergent validity". Furthermore, the square root of AVE is greater than their "correlation coefficients", indicating that all the constructs shown have adequate "discriminant validity". The table shows that all values of CR are greater than the values of AVE, MSV, and ASV (see Table 6).

Table 6. Construct validity and reliability

	CR	AVE	MSV	ASV	INT	SYQ	IFQ	SVQ	TRT
INT	0.896	0.685	0.529	0.349	0.828				
SYQ	0.957	0.789	0.529	0.390	0.727	0.888			
IFQ	0.793	0.560	0.155	0.115	0.394	0.385	0.749		
SVQ	0.949	0.790	0.411	0.318	0.598	0.664	0.298	0.889	
TRT	0.972	0.873	0.411	0.311	0.594	0.664	0.261	0.619	0.934

3.6. Hypotheses testing

After showing strong "convergent and discriminant validity", the "structural model" was evaluated to test the hypothesized relationship. The findings in Table 7 demonstrate that "intention to use mobile commerce" is strongly influenced by "system quality", "service quality", "information quality", and "trust"; these variables contributed to 82.95% of the total variance in "intention to use mobile commerce". These findings support all hypotheses tested in the study H1, H2, H3, and H4 (see Table 7).

Table 7. Hypotheses testing

Hypotheses	Relationship	Result	Decision
H1	IFQ→INT	0.141*	Supported
H2	SYQ→INT	0.507**	Supported
H3	SVQ→INT	0.161	Supported
H4	TRT→INT	0.190	Supported

Note: *p<0.05; **p<0.001

From Table 7, the results of hypotheses testing reveal that H1, which states that "information quality" positively affects the "intention to use mobile commerce", is supported based on β=0.141; p=0.019. This result is supported by previous studies of Tarhini *et al.* [65] and Xin *et al.* [66]. In contrast, Chung and Lee [67] and Gao *et al.* [68] found no significant influence of "information quality" on the "intention to use mobile commerce". Xin *et al.* [66] discovered that product information consistency favors the perception of multi-channel service quality, subsequently affecting the intention to purchase. These results imply that although information quality may not directly affect a person's "intention to use mobile commerce", it may impact other factors that do. Therefore, our findings indicate that better "information quality" is associated with a favorable "intention". Hence, better information quality may have a big effect on consumers' "intention to use mobile commerce in Malaysia".

Similarly, H2 states that system quality positively affects "intention to use mobile commerce", supported based on β=0.507; p <0.001. However, this result is supported by previous studies of [69]–[71]. In contrast, other studies also found no significant influence of "system quality" on the "intention" to use mobile commerce. However, those studies include [72], [73]. These findings indicate that although the "system quality" may not directly affect a consumer's "intention" to use mobile commerce, it may have an impact on other variables that do. Therefore, our findings indicate that better system quality is associated with a positive and favorable intention to use mobile commerce. Hence, better system quality may have a big effect on consumers' "intention" to use mobile commerce in Malaysia.

In addition, H3 states that service quality positively affects the "intention to use mobile commerce", which is supported based on β=0.161; p=0.013. This result is in line with previous studies such as [74]–[76]. For instance, studies [77] and [78] have demonstrated a direct correlation between "service quality", "customer satisfaction", and "purchasing intention". Hence, studies [79], [80] have provided more evidence supporting the notion that "service quality" and "systemic characteristics" impact customer "trust" and "satisfaction". These factors, in turn, influence customers' "intention to utilize mobile payment services". Sharma and Madan [81] and Dhingra *et al.* [82] have also found distinct aspects of "service quality", including speed, trust, and reliability, that favorably impact the adoption of m-commerce and the "intention" to make purchases. Moreover, studies [83], [84] extended the scope of this study to encompass not only the ease of use and perceived cognitive control but also the tangible and intangible elements inside an online-to-offline commerce setting. Therefore, our findings indicate that better "service quality" is associated with a favorable "intention to use mobile commerce". Hence, better "system quality" may have a big effect on consumers' "intention to use mobile commerce in Malaysia".

Finally, H4 stated that trust positively affects the "intention to use mobile commerce", which is supported based on β=0.190; p=0.004. This result is supported by previous studies of [85]–[87]. For instance, studies [87]–[89] have discovered that trust has a major impact on this purpose, with Munikrishnan *et al.* [89] specifically emphasizing the influence of "security concerns". Nevertheless, studies [90], [91] discovered no substantial influence of trust on the "intention to use mobile commerce". Trojanowski and Kułak [90] proposed that alternative factors, such as price value and habit, hold greater sway. Conversely, Zhou [91] has discovered other factors before and after trust in mobile commerce, indicating a more intricate connection. Studies [92], [93] discovered that "trust", "perceived security" and "utility" substantially impact the "intention to use mobile payment". Consequently, our findings indicate that building trust is associated with a positive and favorable "intention to use mobile commerce". Hence, trust may have a big effect on consumers' "intention to use mobile commerce in Malaysia". Therefore, we found that "information quality", "service quality", "system quality", and "trust" have a significant influence on the "intention to use mobile commerce in Malaysia". Therefore, all four hypotheses tested in the present study are supported, as shown in Figure 2.

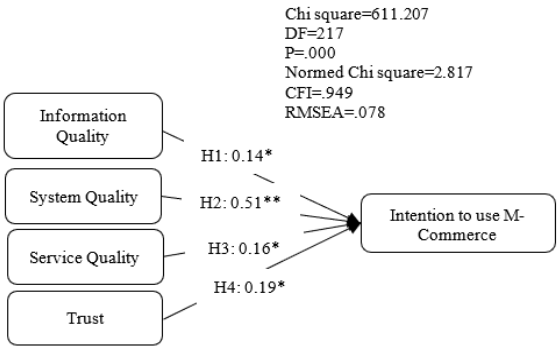

Figure 2. Hypothesized structural model

3.7. Theoretical implications

The main objective of the present study was to gain a thorough understanding of the key elements that could influence consumers' "intentions to use mobile commerce in Malaysia". More knowledge of this phenomenon could aid practitioners in learning more about the key "mobile commerce" factors that need to be considered, which would improve customer "intention" and hasten the adoption of this technology in Malaysia. The suggested conceptual model met the criteria for goodness of fit and predictive validity, as shown in the results section. Specifically, the intention to use anticipated that 82.95% of variance would occur. It was confirmed that the primary elements (IFQ, SVQ, SYQ, and TRT) considerably influenced the customers' "intention to use mobile commerce in Malaysia".

Remarkably, SYQ foresaw the most variation in Malaysian consumers' "intention to use mobile commerce". Our findings align with those of [94], [95], who discovered that SYQ had a significant effect on the "adoption of mobile commerce". According to several findings, Malaysian consumers appear more engaged in such a system's information, data, products, and services. This means that consumers are more likely to have a positive experience and the intention that this technology is "useful", "credible", and "trustworthy" if this information is displayed clearly and is simple to use. As a result, users of this system will be more inclined to do so.

Another crucial element from the approved "IS success model", SVQ, greatly impacted the "intention to use mobile commerce". Our findings are consistent with those of Al-Okaily *et al.* [95] and Ferreira *et al.* [96], who discovered that SVQ positively influenced m-commerce adoption. Customers are more likely to use mobile commerce for various daily activities (such as shopping, bill payment, and banking) if they believe it to be an easy and quick way to find the products they want. Additionally, a user-friendly and intuitive system layout enhances the creative and engaging nature of the client experience. This is why improving the quality of the mobile commerce experience motivates Malaysian consumers.

Additionally, the finding shows that IFQ has a significant positive influence on the "intention to use mobile commerce among consumers in Malaysia". However, the findings align with the study of Zhang *et al.* [97]. Therefore, mobile commerce providers must create "user-friendly" websites or applications, provide valuable information regarding their offerings, and give superior quality services to mobile commerce customers to increase consumers' "intention to use mobile commerce in Malaysia". The primary contribution of this research is the conception of a model to assess the intention to use mobile commerce. Mobile commerce service providers have also been given recent research on the "intention to use mobile commerce".

Finally, the finding reveals that TRT has a significant and positive influence on the "intention to use mobile commerce among consumers in Malaysia". However, the findings are in line with the studies of [98], [99]. Thus, "mobile commerce" providers should build mobile commerce applications that are trustworthy in the eyes of mobile commerce users to improve the consumers' intention towards "using mobile commerce in Malaysia". This is because when consumers trust mobile commerce, they will surely use and adopt it.

3.8. Managerial implications

The present study is carried out to advance knowledge for scholars and professionals with an interest in the field of "mobile commerce", particularly in Malaysia. This study may be the first to address the relevant challenges of mobile commerce in Malaysia. This attempt may significantly advance our knowledge of the key "factors influencing" Malaysian consumers' "intention to use mobile commerce". The primary gap in the literature in the relevant field that this study was first able to identify the factors influencing the "intention to use mobile commerce" can be summed up by proposing a research framework based on a strong theoretical underpinning. This was achieved by employing the ISSM.

To increase customers' "intention to use mobile commerce activities", businesses should build good applications or websites that are "trustworthy" and "user-friendly" and regularly update information about their goods and services. Designers must also ensure that "mobile commerce applications" can assist and serve customers effectively and efficiently without flaws or faults. Putting forth a "conceptual model" built on a strong "theoretical foundation", may be summed up as increasing the level of "adoption of mobile commerce" in the eyes of potential customers. Designers should focus more on maintaining mobile commerce services and growing the commercial activities established using these "applications or websites".

Hence, marketers need to spread the notion that using "mobile commerce" is a natural extension of using other mobile applications like social media or phone calls on "smartphones". Regarding "information quality", "system quality", and "service quality", a cutting-edge, high-quality interface created to the users' preferences will enhance all areas of "information quality", "system quality", and "service quality" to increase the adoption of mobile commerce in Malaysia. Additionally, the data accessible through mobile commerce needs to be more complete, accurate, and often updated. Customers should be able to resolve any issues that may arise when using "mobile commerce" by Um *et al.* [100]. This might be achieved by arming customers with the required abilities and information to enable them to solve any issues and reduce any risks. If there is an issue, customer service must be accessible whenever it arises. Marketers should enhance the "clarity of information", "graphics", and "layout"; for instance, all information related to the products must be clear and easy to read by consumers, as suggested by Al-Nabhani *et al.* [101].

Therefore, all stakeholders in the "mobile commerce" industry should focus on "system quality", "service quality", "information quality", and "trust" when building "mobile commerce" applications and websites to improve the "intention to use mobile commerce among consumers in Malaysia". As a result, Hoque *et al.* [102] advised that the stakeholders should improve "e-service quality" to increase the consumers' involvement in online activities. Thus, "service quality", "system quality", "information quality", and "trust" are pre-requisite influential factors of Malaysian mobile users' "intention to use mobile commerce".

4. CONCLUSION

This study explores the factors influencing the "intention" of mobile commerce users in Malaysia, focusing on "information quality", "service quality", "system quality", and "trust". It suggests a model for further research and empirical testing, emphasizing the "intention" to use "mobile commerce" to improve providers' "information", "systems", and "services". However, the study has limitations, including its quantitative nature and lack of qualitative justification for its assertions. Other technological aspect variables such as "perceived usefulness", "perceived ease of use", "privacy", "security" and "cost" may also impact consumer "intention". Future studies may employ a more "qualitative approach", such as "interviews" or "observations", to improve mobile commerce activities and promote favorable intention. In addition, the data collected in the "Klang Valley" of Malaysia does not represent all of Malaysia. Future research may include other states and conduct comparative studies between Malaysia and other developing countries. The research framework may also be applied to different contexts of technological behavioral intention. Another limitation of this study which might impact the findings is that the data is collected from educated consumers, 18 years and above, and living in Klang Valley as those consumers are very familiar with mobile commerce activities in their day-to-day lives, however, collecting data from other states of Malaysia might have different findings. Therefore, future studies are encouraged to include other states of Malaysia.

Therefore, recent observation indicates that technological aspects such as mobile commerce's "usefulness" and "ease of use" may have an impact on the "intention to use mobile commerce in Malaysia". Our study investigates the service aspects and founds that "service quality", "system quality", "information quality", and "trust" significantly influence the "intention to use mobile commerce among Malaysian consumers".

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BIOGRAPHIES OF AUTHORS

Moussa Barry is a PhD Scholar at the Department of Business Administration, Kulliyyah (Faculty) of Economics and Management Sciences, International Islamic University Malaysia (IIUM), P. O. Box 10, Jalan Gombak, 50728 Kuala Lumpur, Malaysia. He has been conducting his doctoral research since 2022. He is interested in the area of consumer behaviour and digital marketing from where he published articles in research journals. He can be contacted at barrymoussa4@gmail.com.

Ahasanul Haque is a Professor at the Department of Business Administration, Kulliyyah (Faculty) of Economics and Management Sciences, International Islamic University Malaysia (IIUM), P. O. Box 10, Jalan Gombak, 50728 Kuala Lumpur, Malaysia. His achievements include publications of numerous books, book chapters, and study modules supervision are remarkable. He has published and presented papers at both local and international levels. At this stage, he has published textbooks, research books, book chapters, and study modules. Moreover, he has published a significant number of research articles in internationally referred journals, including ISI, Scopus, Emerald, ABDC, and others indexed, and also a remarkable number of conference proceedings. He is an editorial board member of several international index journals. He has been awarded several times for outstanding research work locally and internationally, including the Emerald Literati Award and British Publishing House. He can be contacted at ahasanul@iium.edu.my.

Muhammad Tahir Jan is an Associate Professor at the Department of Business Administration, Kulliyyah (Faculty) of Economics and Management Sciences, International Islamic University Malaysia, P. O. Box 10, Jalan Gombak, 50728 Kuala Lumpur, Malaysia. He has vast experience in teaching marketing-related subjects and presentation skills to students of different caliber, including training executives of different organizations. He prefers to publish in the area of consumer behavior and has published in various accredited journals. His research has also been presented at conferences both locally and internationally. Due to his research capabilities, he was given the "Best Researcher Award" for the year 2014 and the "Best Indexed Journal Article Award" for the year 2015, at the Department of Business Administration, Kulliyyah of Economics and Management Sciences, International Islamic University Malaysia. He can be contacted at tahirjan@iium.edu.my.