

## Factors Influencing the Adoption of Mobile Banking Service among Cihan Bank Customers in the Kurdistan Region of Iraq

<sup>1</sup>Abdulsatar Abduljabbar Sultan, <sup>2</sup>Mohammad Salim Abdulrahman, <sup>3</sup>Ummi Naiemah Saraih, <sup>4</sup>Muhammad Mujtaba Asad

<sup>1</sup>*Business Administration Department, Lebanese French University, Kurdistan Region, Iraq*

<sup>2</sup>*IT Department, Tishk International University, Erbil, Iraq*

<sup>3</sup>*School of Business Innovation and Technopreneurship Universiti Malaysia Perlis Kangar, Malaysia*

<sup>4</sup>*Sukkur Institute of Business Administration (IBA) University Pakistan*

### Abstract

*Few banks of Iraq's Kurdistan Region have started providing banking services over smartphones. In addition, not many papers find the factors that influence users' intention to adopt mobile banking services among bank customers in Iraq's Kurdistan Region. The main focus of this research is to fill the gap also, analyzes various variables impact of mobile banking adoption. The theories of Diffusion of Innovation (DOI) and Technology Acceptance Model (TAM) have been chosen by the researchers as the baseline theories. It is discovered that relative advantage, trust, and subjective norms have a constructive impact on adoption. Conflicting to the unearthing in the extant writings, compatibility and perceived value have no critical impact on adoption. Complexity negatively affects appropriation. The discoveries of this examination will have viable ramifications for the financial business in Iraq's Kurdistan Region.*

**Keywords:** *Mobile Banking, Technology, Adoption, Iraq's Kurdistan Region.*

### 1. Introduction

The conveyance of financial services has real changes during a previous couple of years and information and communications technology has constant to revolutionize the banking field. A banking industry's characteristic has been progressively becoming more competitive (A. Asongu & Nwachukwu, 2018). With the help of technological developments, banks have been able to take up the challenges by validating new technology, which focuses to satisfy the customers by providing the best technology-based banking services while minimizing operating costs (Riyadh, Alfaiza, & Sultan, 2019; Sultan, Noor, & Nasirun, 2018). Mobile phones have become a device for daily usage, which can make a chance for the improvement of banking services to reach customer through mobile banking services (Maulana, Suryana, Kartini, & Febrian, 2019). Services provided by the banks are evaluated by the customers for their satisfaction and this evaluation are based on many factors. (Sohail and Abdullah, 2019).

Online banking one of the effective business-to-consumer implementation in electronic commerce. Mobile banking is systems utilized by customers to do transactions with banks over mobile phones. Mobile banking indicates to banking transaction by mobile devices like smartphones, personal digital assistant, and other devices excluding the laptops (Lee & Chung, 2009). There has been a great diversity in the earlier research on electronic

banking services, which measure the direction of consumers towards ATMs and understanding the social goal to utilize versatile financial administrations (Luarn & Lin, 2005). Adoption and quality of online banking issues (Baabdullah, Alalwan, Rana, Kizgin, & Patil, 2019). In addition to latest studies that broke down the reception and use of internet or internet banking in the Middle East (Alalwan, Dwivedi, Rana, & Algharabat, 2018). However, with the rapid development in the use of mobile smart gadgets in Iraq in general and Kurdistan in particular and spread, it has been the turning point towards the devices that support banking applications to and thus a consistent advancement in electronic banking. Smartphone banking was a conduit for providing cordless services that offered increased value to customers' banking transactions (Ameen & Willis, 2018; Sultan, Hassan, & Noor, 2016; Sultan et al., 2018).

The specific research goal for this study is to explore the factors and how they affect mobile banking services acceptance in developing countries, such as the Kurdistan Region of Iraq. The study uses DOI and TAM as the baseline theories to inspect factors that may impact mobile banking adoption.

The theory of DOI (organizational level) were combined with the TAM model (individual level) because the sample of the study that will answer the questions are employees who use the services of the bank at the same time, DOI and TAM propose that a person's readiness to receive another innovation and is affected by six critical factors (Conrad, 2013). As Rogers (2003) identified characteristics of innovations in his book 'Diffusion of Innovations' relative advantage, compatibility, complexity, in addition to trust, perceived value and subjectivenorms based on TAM theory (Davis, 1989). By looking at previous studies, very few attempts seem to have tried to combine the theories of DOI and TAM in banking services in Kurdistan Region of Iraq.

This research work is systematic as follows: The following part reveals some insight into portable correspondence and banking in the Kurdistan Region of Iraq, followed by the review of literature and hypotheses formularization. Then the research methodology, investigations, and results are displayed. At last, the talks ends, and further research headings are recommended.

## **2. Mobile Communications and Banking Services in the Kurdistan Region of Iraq**

The long-term strategic vision of ICT is Iraq in general and Kurdistan Region in particular in changing into a data society and computerized economy to expand profitability, give ICT administrations to all divisions of society in all pieces of the nation and manufacture a strong data industry that turns into a noteworthy wellspring of pay rather than all-out reliance on oil assets (MOC, 2019).

The telephone system was built in Iraq during the 1970s. This percentage may increase significantly and peaked in the early 1990s before the first Gulf War. Iraq was able to enjoy the mobile phone service only after 2003. For many reasons, most importantly, the recent war that destroyed nearly half of the communications infrastructure during the beginning of 2005, the approximate number of mobile phone users was about 5 million, equal to 15 percent of the population. To 9 million subscribers by the end of 2006. The latest statistics of the Central Bureau of Statistics of the Iraqi Ministry of Planning for 2017, the number of mobile phone subscribers of three major companies (Asiacell, Zain, and Korek Telecom) 40 million (CSO, 2018; ICO, 2007).

Table 1 shows the number of subscribers from 2012 to 2017.

Table1  
*Quantity of Users for mobile phone lines in Iraq during 2012-2017*

Years	Total quantity of users For mobile phone lines (Zain,Asiacell, Korek)	* Telephone density per 100 population for mobile phone lines
2012	29,763,880	87.0
2013	34,256,788	97.6
2014	35,846,824	99.6
2015	33,470,916	90.6
2016	34,957,526	92.3
2017	40,001,723	107.7

\*Telephone density= Total of lines/population\*100

Source: Communication and media Commission

The number of internet clients expanded from roughly 3 million of every 2007 to 19 million toward the finish of the third quarter of 2017; only Internet users through mobile phone. Internet entrance expanded from 10% in 2003 to 70% of the populace before the finish of 2017. In addition, mobile services incomes expanded from IQD 8 billion in 2006 to IQD 45.11 billion in 2017 (CSO, 2018).

At the same time, most of the large banks in the Kurdistan Region of Iraq, such as Cihan Bank and Bank of Kurdistan, invested heavily in developing mobile banking capabilities to increase customer satisfaction, but the proportion of those who use these services is still low compared to other countries that use the same systems (CihanBank, 2019). Mobile Banking includes the ability to get access to your balance sheet, transfer funds to other customers, transfer funds between your accounts, obtain your account statement, receive recent transactions, stop checks, request checkbooks, request additional accounts, loan application, request cards, card balance, your card movements, cancel the card, service balance mobile, to pay the bill, service balance mobile and service balance-mobile recharge (CihanBank, 2019).

Customers and employees interested in using mobile banking applications must enroll for the administration through the bank's site and download the portable financial application on their telephones. Once the application is installed on phone, the customer has complete freedom to use their mobile banking services wherever and whenever they are, and the cost is completely free.

The expanding measur of mobile phone users and the strong rivalry between mobile companies'. Companies have recently resulted in persistent improvement in service quality just as in price reductions. This is an incentive for banks and public and private businesses to give their administrations utilizing cell phones. Along these lines, it is imperative to think about the elements that smooth and/or prevent the utilization of mobile online banking services from the employee or consumers point of view (CSO, 2018).

### 3. Review of Literature and Hypotheses

Previous researches on individuals' adoption (employees and customers) discussed mobile banking services as the adoption of technological innovation (Farah, Hasni, & Abbas, 2018; Hamidi & Safareeyeh, 2019). According to Rogers (2003) definitions, communication-suitable channels is the first step and the main base for moving towards the adoption of innovation. Rogers recognized a few characteristics of a development that are key effects on reception conduct. Some of the characteristics of DOI are right for this study. In addition, DOI has been used in many earlier studies at the level of individuals or firms, particularly in banks sector (Al-Jabri & Sohail, 2012; Shaikh & Karjaluto, 2015).

By contrast, some researchers have refuted the ability of this theory to explain the selection of new innovation. They argue that adoption of mobile banking services is collaborative behavior. In such a case, there are two independent organizations adopting mobile financial administrations simultaneously and depend on each other's actions in exploiting it (Lyytinen & Damsgaard, 2011). They argue that DOI has inadequate constructs to deal with collaborative behavior such as trust (Lyytinen & Damsgaard, 2011). Parker and Castleman (2009) argued that DOI does not offer a lens through which to study these complex social and relational dimensions, therefore for this study, DOI will be integrated with the TAM, to present the research proposition.

The TAM has prevailed the exploration scene as the most for the most part utilized structure to clarify appropriation expectations and real innovation use (Hsiao and Yang, 2011; Marangunić and Granić, 2015). The TAM was utilized as the basic model in order to improve the change version of TAM to best reflect on mobile banking adoption. In the modified model, the influence of trust, perceived value and subjective norms on mobile banking services are added (Chung, 2014). By and large, the TAM clarifies innovation reception well; yet, the job of affirmed key structure and the noteworthiness of outer factors differentiate some current certainty about the TAM (Scherer, Siddiq, & Tondeur, 2019). Hence, this theory (TAM) was used with the theory of DOI to provide a model of study commensurate with the current study, which used a number of external variables not touched by TAM or DOI. Following is a brief summary of factors were used in this study related to innovation adoption.

### **3.1. Relative Advantage**

Rogers (2003) characterizes relatively favorable position as how much a development is seen as superior to anything the thought it supplants. They are used to reflect the anticipated benefits or efficiencies an innovation adoption, i.e., the mobile bank can provide to a bank compared to the old practice or idea (Sultan et al., 2018). Past research suggests that the effect of relative advantage still includes a robust influence on adoption call however its influence depends in the main on the previous awareness about characteristics of technology and its capability (Seyal & Rahman, 2003). In the case of mobile banking adoption, advantages like immediacy, fitness, and affordability to customers are rumored (Y.-S. Wang, Li, Li, & Zhang, 2016). Hence, when customers see the distinct advantages of mobile banking, they will most likely want to adopt it. Therefore, this work formulates the following hypothesis:

**H<sub>1</sub>:** Relative advantage will have a positive impact on mobile banking adoption.

### **3.2. Complexity**

Complexity alludes to the level of trouble met in order to understand and apply mobile banking services (Rogers, 2003). Complexity is the reverse of ease of utilizing. The Simplicity of using alludes to the range to which versatile banking is acknowledged as straightforward and run (Mallat, 2007). A higher level of complexity involved increases the level of uncertainty on the successful adoption of new innovation. Since versatile banking has very easy to understand interfaces, clients consider it to be anything but difficult to utilize, in this way making inspirational frames of mind towards them (Shaikh and Karjaluto, 2015). Multifaceted nature being used is a central point in the appropriation of portable banking. There is a huge measure of experimental research on versatile innovation to suggest that clients' goal to receive portable banking is controlled by the acknowledge unpredictability of the innovation advancement (Mallat, 2007; Y.-S. Wang et al., 2016).

Previous studies on mobile banking adoption barriers have often been associated with technical complexity. Complexity is studied through the study of intricacy being used, specialized framework and innovation structure as each boundary in various examinations (Al-Jabri & Sohail, 2012; Y.-S. Wang et al., 2016). Users will be check to utilize portable banking in the event that they discover it requests increasingly sound exertion, is tedious or depressed(Al-Jabri & Sohail, 2012).

Therefore, the easier it is to understand the technology, the faster and more immediately the adoption will take place and vice versa. This leads to the following hypothesis:

**H<sub>2</sub>:** Complexity will have a negative impact on mobile banking adoption.

### **3.3. Compatibility**

Compatibility is the extent to which mobile banking is harmonized with the bank's values, needs and past exposure (Rogers, 2003). Previous research suggests that compatibility is an important factor to consider before banks can adopt mobile banking (Lin, 2011). A higher level of similarity empowers the reception of portable saving money with lesser changes to the present instance of versatile financial appropriation (Hanafizadeh, Behboudi, Koshksaray, & Tabar, 2014).Sultan et al. (2018)discovered that similarity had a significant relationship with web-based business appropriation and use in Iraq. This leads to the following hypothesis:

**H<sub>3</sub>:**Compatibility will have a positive impact on mobile banking adoption.

### **3.4. Trust**

A vast body of literature has pointed trust as a variable that directly affects the new technology adoption(A. Y.-L. Chong & Bai, 2014; A. Y.-L. Chong, Chan, Goh, & Tiwari, 2013). Koenig-Lewis, Palmer, and Moll (2010) also conducted an online survey using 263 young respondents in Germany to examine the obstacles of adopting mobile banking services. The findings revealed that trust and credibility were two important indicators in lowering the perceived risk of mobile banking. For many of the adoption studies, the evidence for the predictions of a direct effect is not robust. Recent studies confirmed that trust plays an insignificant direct role in the adoption decision(A. Y.-L. Chong & Bai, 2014). Trust among client and bank breeds a feeling of mental consolation that the relationship will deliver the normal results(Li, Pieńkowski, van Moorsel, and Smith, 2012).

This examination would in this manner expect that trust coordinates the inspiration towards arriving at the selection by giving data about the suitability of taking part in specific joint-activity conduct like mobile financial reception.

This leads to the following hypothesis:

**H<sub>4</sub>:**Trust will have a positive impact on mobile banking adoption.

### **3.5. Perceived Value**

Perceived value is a significant element that affects the actions of users. There are many arguments among researchers regarding the definition of perceived value(Hong, Lin, & Hsieh, 2017). The apparent worth is observed as an exchange off among valuable andpenance which is the evaluation towards what is received and what is given(Lillrank et al., 2018).According to Kim, Chan, and Gupta (2007) has been validated in the research of mobile banking usage in growing countries.They found that besides TAM factors the perceived value, significantly influenced Mobile Banking usage in growing countries(Kim et al., 2007).This leads to the following hypothesis:

**H<sub>5</sub>:**Perceived value will have a positive impact on mobile banking adoption.

### 3.6. Subjective Norm

Subjective norm is the last predictor of mobile banking adoption in this research. It refers to individuals perceived opinion of key persons who encourage them to execute some behaviors (Saraih, Amlus, Irza Hanie, Abdul Mutalib&Sharmini, 2017); and in this case is reflected on individuals' behavior to adopt the usage of mobile banking. As added by Saraih et al. (2017), these key persons might be the close individuals around them. If the targeted behavior is more attractive to the individuals (users), the intention of the individuals (users) to adopt mobile banking is higher. Subjective norm is defined as the perceived social pressure to perform or not to perform the behavior (Ajzen, 2012). In this study, it reflects on the factor that motivates individuals to use mobile financial services. The influence factor might come from the close individuals such as families, relatives, and friends. As added by (Hunecke, Engler, Jara-Rojas, & Poortvliet, 2017)the influence of media in making decisions by the consumer (users) to use the products or services offered is also counted. Believes that the use of mobile banking services will be feasible if the conduct of customers is affected by people around them(Lu, Yao, & Yu, 2005).

A few passed examinations have noticed the connection between social standards and the appropriation of portable financial administrations. Lu et al. (2005)found that social norms were important factors that influenced the adoption of wireless internet services via mobile technology.Also, Hunecke et al. (2017)examined the role of social capital in adoption decisions. However, Lorenz and Buhtz (2017) found in their study that social standards impact the aim to embrace new innovation including versatile financial administrations. Hence, the hypothesis generated is as follows:

**H<sub>6</sub>**:Subjective norms will have a positive impact on mobile banking adoption.

The study hypotheses are depicted in Figure 1 based on DOI and TAM theories.

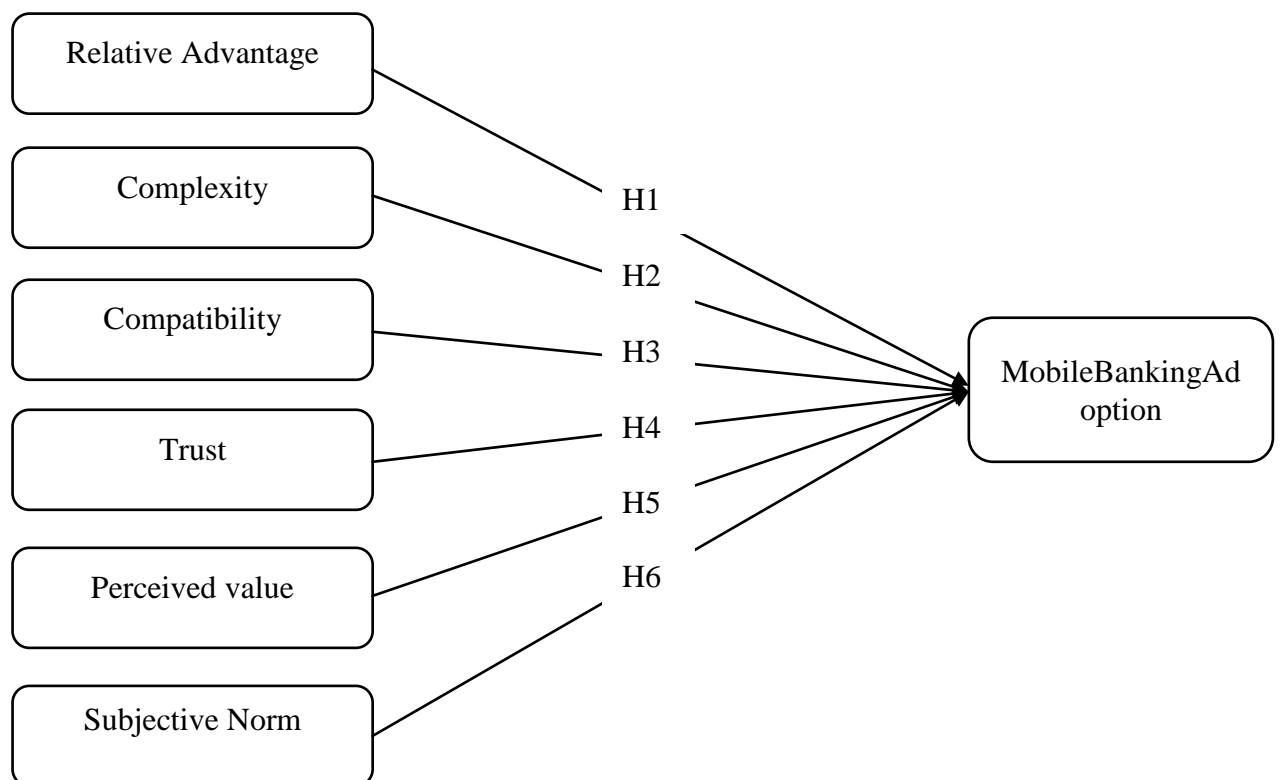


Figure 1: The Research Model

#### **4. Research Methodology**

In view of the review of literature, an extraordinary study instrument was produced for this examination. The overview instrument comprises of two sections. The first segment of the poll is intended to catch respondents' socioeconomic and utilization designs in portable banking. The next part was designed to catch details about the structures that affect the adoption of mobile banking services, namely relative advantage, complexity, compatibility, trust, perceived value, and subjective norm. Measurement elements for these combinations are adapted by the previous research on the internet and mobile banking services such as (Al-Jabri & Sohail, 2012; Baabdullah et al., 2019; Farah et al., 2018) and have been utilized in this study. After improving the instrument, a pilot exam was managed on 20 randomly chosen mobile banking employees and customers who use the bank of Cihan Bank services on a daily basis. This was completed to guarantee the visibility and validity of the survey instrument of this study. Subsequent to getting the outcome, it was affirmed to change the wording of certain inquiries as they were observed to need lucidity insignificant. All things were estimated with a Five-Likert scale, going from 5 (strongly agree) to 1 (strongly disagree).

The target sample in this study was all employed individuals and customers who deal with Cihan Bank in Erbil which is located in Kurdistan Region of Iraq. Most of the respondents were university lecturers who deal directly with the bank and have debit cards. In addition, they have smart mobile devices. 400 questionnaires were distributed. Data collection took place between April 2019 and July 2019. Due to some constraints, the study was limited to Cihan Bank, one of the largest banks in Iraq's Kurdistan Region. All questionnaires collected from the sample under study were checked and verified to ensure completeness. To be more precise, the data was cleaned for more comprehensive and extensive responses. All information was entered utilizing the SPSS 20 bundle for the next stage of the investigation. After this round of expulsion in view of its inadequacy, we at last left with 330 legitimate polls for use.

#### **5. Results and Discussions**

##### **1.1 Profile of Respondents for the Study**

In this section, respondents are described by the variables of gender, age, education profile in terms of degree and experience in using the smartphone. Table 2 demonstrates the statistic qualities of 330 respondents who have effectively utilized mobile financial administrations. About 58% of males. Respondents were mentioned to give their age, and table 1 demonstrates the dissemination of age, estimated in years. Respondent age fluctuates from 18 to 41 years or above. As can be seen that the biggest extent (72.7%) of respondents by age gathering were those in the 18-25 years of age classification, followed by those in the 26-30 year category (13.6%). Also, the respondents were given all the possible options (high school, diploma, bachelor degree, master degree, and doctoral degree) to be chosen in order to describe their educational level. As shown in Table 1, out of the total 330, 179 (54.2%) were bachelor degree holders, 74 (22.4%) reported has a Ph.D. level education followed by masters (10.6%) and diploma holders (10.9%). Approximately 46% of the respondents had (2-5) years of experience in using a smartphone. With only 25.5% having been (6-10) years' experience. A little over 60 of the respondents (18.2%) had more than 10 years of experience in using a smartphone. Less than 11 % had less than one year of experience in using a smartphone.

Table 2: Frequencies and Percentages for Demographics Information

Description		Frequency	Percent
Gender	Male	191	57.9
	Female	139	42.1
Age (years)	18-25	240	72.7
	26-30	45	13.6
	31-35	23	7.0
	36-40	10	3.0
	Above 41	12	3.6
Education	Ph.D.	74	22.4
	Master Degree	35	10.6
	Bachelor	179	54.2
	Diploma	36	10.9
	High School	4	1.2
	Others	2	0.6
Occupation	Employed	220	66.7
	Lecturers at universities	110	33.4
Experience in Using Mobile Banking	Less than one year	34	10.3
	2-5 years	152	46.1
	6-10 years	84	25.5
	More than 10 years	60	18.2

### 1.2 Factor Analysis

By utilizing Cronbach's Alpha examination inside consistency was figured to test the dependability of all variables in this investigation. The coefficients ran between 0.911 (factor mobile banking adoption) and 0.772 (factor trust) which are for the most part higher the estimation of 0.6(Bernstein and Nunnally, 1994). This notice all things in the factorial gatherings in this investigation are the adequately dependable estimation. Cronbach's Alpha reliability coefficients, descriptive statistics, and their sources are depicted in Table 3.

Table 3: Mean, Standard Deviation, Cronbach's Alpha Reliability, and construct sources

Construct	No. of Item	Mean	S.D.	Alpha	Adapted From
Relative Advantage	5	3.601	0.761	0.901	(Premkumar & Roberts, 1999)
Complexity	3	3.721	0.759	0.881	(Premkumar & Roberts, 1999)
Compatibility	5	3.012	0.835	0.844	(Premkumar & Roberts, 1999)
Trust	7	3.587	0.758	0.772	(Y. S. Wang, Lin, & Luarn, 2006)
Subjective Norms	7	3.225	0.882	0.866	(Amin, 2007)
Perceived value	5	3.668	0.771	0.842	(Akturan & Tezcan, 2012)
Mobile Banking Adoption	6	3.412	0.820	0.911	(S. Chong & Pervan, 2007)



### 1.3 Regression Analysis

Table 4 demonstrates the aftereffects of the multiple regression model of this investigation. The needy variable is mobile financial adaption. The measurement of the F test for the regression model is 39.772 with a p-estimation of 0.000. The aftereffects of the regression investigation demonstrated that four variables influencing the appropriation of mobile banking administrations, namely relative advantage, trust, and subjective norms have a significant positive impact, while complexity has a significant negative impact on the adoption of mobile banking services. However, compatibility and perceived value, the results showed that they have no effect on the adoption of mobile financial services. Moreover,  $R^2$  which is 0.411 mention that 41.1% of mobile banking adoption is interpreted by the independent factors these chosen in this study. The factor of variance inflation (VIF), which demonstrate how much every autonomous variable is related to other indicator factors, showed that there is no proof of multicollinearity. A beginning VIF that not exactly or equivalent to 10 proposes that multicollinearity is rough missing.

Table 4: Multiple Regression Test

Independent Variables	$\beta$	T	P-value	Collinearity Statistics	
				Tolerances	VIF
Relative Advantage	0.265	4.255	0.000	0.662	1.705
Complexity	-0.144	-3.442	0.002	0.810	1.509
Compatibility	0.554	1.203	0.192	0.626	1.288
Trust	0.330	4.885	0.000	0.554	1.955
Subjective Norms	0.301	4.788	0.000	0.566	1.845
Perceived value	0.142	1.232	0.323	0.658	1.422

Dependent Variable = Mobile Banking Adoption;  $R^2 = 0.411$ ;  $F = 39.772$ ;  $P\text{-value} < 0.05$

### 6. Conclusions

Depending on the DOI and TAM theories, this study subtracts that relative advantage, complexity, compatibility, trust, subjective norms, and perceived value will affect the adoption of mobile banking service among Cihan Bank customers in the Kurdistan Region of Iraq. As before mention, the data indicate that trust is the most significant factor impacting the adoption of mobile banking service in the sampled. This result ( $t=4.885$ ,  $p \leq 0.000$ ) indicates that the trust factor is important, and consumers are inspired to use the mobile banking in banking transactions through providing the security and trust required via this technology by the bank and communication companies. This uncovering is reliable with past investigations that indicate the importance of comparative advantage in adopting technological innovations, including the use of the mobile banking in financial transactions (A. Y.-L. Chong & Bai, 2014; A. Y.-L. Chong et al., 2013). Subjective norms, which is the second most significant predictor in the model also positively affect the adoption of mobile banking ( $t=4.788$ ,  $p \leq 0.000$ ). Others (Hunecke et al., 2017; Lorenz & Buhtz, 2017) have also highlighted the importance of this variable in the adoption of mobile banking. This means that mobile banking adjusts well in the subjective norms for employees and customers who use mobile phones in banking transactions, is appropriate to their actions and situations, and thus, they like to embrace modern innovations. Whenever utilized or potential clients understand that utilizing versatile banking is completely fitting with their social standards was of banking and it fits well with the manner in which they like to do banking, they will in general grasp it.

Relative advantage is established to have an important impact on mobile banking adoption, supporting H1 ( $t=4.255$ ,  $p \leq 0.000$ ). This result indicates that employees and customers of the bank are encouraged to adopt mobile banking when realizing the perceived benefits of these applications. This finding supports previous studies that

mention the critical importance of relative advantage in the adoption of new technological innovations (Al-Jabri & Sohail, 2012; Sultan et al., 2018; X. Wang, Yuen, Wong, & Teo, 2018). Complexity is discovered to have aadverse important impact on the adoption of mobile banking, supporting H2 ( $t=-3.442$ ,  $p \leq 0.002$ ). This is in accordance with the majority of the discoveries of the past examination (Al-Jabri & Sohail, 2012; Y.-S. Wang et al., 2016), which means that customers of bank realized the complexity as the main barrier for mobile banking adoption. They fear that this application will require a lot of mental effort as well as possessing high technical skills using ICTs. Finally, the results presented that factors of compatibility and perceived value are not important in the adoption of mobile banking. Regarding compatibility, the data possibly indicate that the customers of banking do not realize the mobile banking to be harmonious with their existing ethics and application, perhaps they think these technologies and applications may not meet the special needs. In addition, the realization of the perceived value added by these applications and the economic feasibility of the time, cost and fees paid by the service is almost unclear and may lack more advertisements and promotion to clarify to customers, this is in line with previous studies conducted in Saudi Arabia and Malaysia (Al-Jabri & Sohail, 2012; Othman, 2014).

According to our findings, the private banks in the Kurdistan Region of Iraq must provide mobile banking services that match the requirement of the employees of the private universities, adding to the customers of the bank, taking into consideration their previous technical expertise and their own style of living and culture in order to meet their expectations. With continued support for mobile banking and the provision of a variety of services to meet their specific needs, customers will realize the benefits of mobile banking and thus encourage their increased adoption. Therefore, the bank should focus on understanding the behavior of customers and employees and try designing reliable banking systems that providing their specific needs and come up with useful and high-quality services.

In addition, the bank should concentrate on giving data that stress the relative favorable position and saw estimation of portable financial administrations contrasted and other financial administrations such as the actual going off the bank or the use of ATMs, and increase the advertising and promotion of these services and introduce them and try to break the barrier, which they believe requires high technical skills to use these applications. This investigation used a stratified sampling technique to collect data. Consequently, the outcomes can't be summed up on the grounds that most of the test size was staffed by academics at private universities who are customers of Cihan Bank. Mobile financial services are still generally new and limited applications in the Kurdistan Region of Iraq and maybe immature in many villages and rural areas. Therefore, further research and studies are expected to distinguish extra factors that encourage or hinder the adoption and use of banking services over mobile in this country. The study recommends the need to look for additional variables that will improve the customer's ability to understand the use of these applications and to try and predict their needs more accurately. Future studies can add variables such as religious belief and the level of education, as well as the language that represents a large quarry because most of the applications are in English, which is missing by many of the population of this country.

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