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Research paper

A Review of Mobile Banking Adoption Factors by Customers for Iraqi Banks

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Abstract

Mobile banking is becoming the delivery of self-service channel that helps banks to present information and also offer solutions to their own clients with more convenience via the internet services technology. This paper presents a review of mobile banking implementations all over the world in addition to reports on findings such as issues and benefits and associated with mobile banking adoption. However, the adoption of this complex innovation is a complicated task as discussed by the literature; thus, careful consideration and planning to all crucial factors that affect the adoption process through users is required. The aim of this study is to evaluate the factors that influence the adoption of mobile banking frameworks in banks industry. The study was performed utilizing a non-experimental study exploratory research design. This exploratory study included an essential investigation about secondary data. The study development and modeling of secondary data in order to highlight the final results of the research. Through reviewing the literature of the existing frameworks in mobile banking adoption, it is showed that the banks in Iraq needs continued attention to get government support, Iraqi mobile banking services have limited developed over the latest years in the different levels of banks and mobile services.

Keywords: m-banking, mobile banking, e-banking, mobile banking adoption, consumers, Iraqi banks.

1. Introduction

The business of banking has dramatically changed during the last ten years. The fast development of technology has affected the industry of banking around the globe. An information impact technology in banking sector is the mobile banking introduction. Mobile banking is becoming the delivery of self-service channel that helps banks to present information and also offer solutions to their own clients with more convenience via the internet services technology. Consumers have got embraced new mobile devices at an amazing pace. With the internet connection, it is now possible to obtain ubiquitous easy access to private and business information, stay connected with social networks and help to make life much more efficient. M-banking enables bank's clients to check out balances of their account, perform credit card transaction [44].

In the developing nations of the world, it can find more than a billion people who do not have a bank account although who still have and use a mobile phone with a typical basis. Increasingly, we are observing new projects that create moderate banking services available to this kind of people by using mobile phones as the primary device for performing transactions. By way of a human agents network who facilitate deposits of cash and withdrawals, these systems expand the access of banks to remote regions in a way that's not only easier for consumers, but often much less expensive than conventional methods [59].

This study consists of the relevant literature, publishing and hypotheses which specifically focus on the subject of the adoption of mobile banking system, taking into account the objective to give ensuing discussion and analysis. It will be identifying the gap of literature knowledge and attempt to bridge it. The secondary search of related materials used would identify previous work done in this discipline and to identify and assess the infrastructure of banks in Iraq with a view to determine potential opportunities existing for the adoption of mobile banking, define target solutions and infrastructure architecture, and compare and review road maps for the different initiatives researched to support the implementation of mobile banking systems.

Many studies examine m-banking and related aspects that effect consumers' adoption, they are usually making use of the two qualitative and quantitative techniques. In spite of significant research on m-banking adoption which has come out in worldwide publications throughout disciplines, an overview of mobile banking literature adoption stays absents. Such a review presents an essential landmark in the research development subject. It can provide a chance to take a step back and review the intelligence of collective which is accumulated through an eclectic body of research which utilizes numerous examples, techniques, and hypotheses [3]. This work is especially important whenever the findings of separated

studies contradict each other. The diffusion of m-devices and Wi-Fi Internet has enhance the uptake of mobile phone apps such as m-banking ([5];[22]). For [26] "M-banking is a growing application of mobile phone business that might become an extra income source to the banks and telecommunications service suppliers. It is a kind of service convergence permitted by modern technologies". It is a value effective service that enables users to break free of the limitations of time, queues, and place [4].

Mobile banking will certainly come to be an essential service to the bank along with the spectacular raise in the quantity of smartphone utilization in Iraq. To make sure the success of M-banking, banks have to supply a strong m-banking structure and also to connect properly the advantage of m-banking to persuade clients to utilize the system of m-banking as a second option through internet banking and conventional banking [60]. In addition, inability to address users worries with respect to resulting of m-banking users not certain with the program and lost the investment of bank for the system [43]. In developing nations, like Iraq, m-banking has been accepted by the banking business. It is a simple fact that m-banking is even now in its childhood and fairly alien to Iraqis. Therefore, there is a chance that m-banking stays unidentified to and underuse by bank clients. There is certainly a requirement, hence, to realize the level of acceptance of m-banking by clients and to study the aspects influencing intentions to utilize it for financial transactions.

The problem driving this study is to address the lack of understanding the key elements which can affect the adoption of the m-banking by customers in Iraqi Banks. The investigation focused on getting a thorough and systematic organization of opinions and beliefs on adoption and diffusion of mobile banking applications. This study would be delimited within the confines of exploratory design, with secondary data. The source of secondary data gathered for this research is the Literature search; hence the goal of this literature search would be to review past works in line with the subject matter. This will fulfill the study objective which is to evaluate the factors leading to develop a mobile banking adoption model for both private and public banks.

This review would incorporate evolved search of internet sites, conference papers, gathering, and published information. A variety of searches were performed on article and Journals reviews, daily newspapers. Focused online search was done by using such relevant keywords such as "m-banking", "mobile banking", "e-banking", "mobile banking adoption", "banks consumers", and "Iraqi banks

2. Research Background

The background information provided the challenges with implementation and adoption of mobile banking systems as the basis for research by the consumers, and how this may affect stakeholder's satisfaction. The continuous popular advances in computer system technology have motivated a lot of businesses to embrace new techniques of interacting along with clients to enhance service, to reduce costs and to sustain competitive benefit. The banking field is continuously looking for methods to make use of technology for these reasons, and for the client, make more appropriate solutions of banking. Banking has changed considerably since the time when it was performed in a customer's local branch with the arrival of e-banking. With e-banking a business can present clients accessibility to banking services via several electronic channels. E-banking is noticed as one of the most successful locations of e-commerce [8].

M-banking adoption is possible in developing nations simply since they own slight legacy facilities on that to create, fast developing marketplaces tend to be override advanced markets through developing twenty first century facilities [19]. Taking into consideration this benefit, several banking organizations, including microfinance organizations in developing nations, have switched to the smartphone as a possible system for providing official financial services throughout unique customer sections, like banked, unbanked consumers, and underbanked. These innovations were additional influenced by the truth that around the developing globe, much more people have mobile devices compared to bank accounts [40].

For example, in accordance to [55], the quantity of worldwide mobile devices owners arrived at 4.61 billion, as well as this number is predicted to reach 4.77 billion (65 % of the worldwide populace) within 2017.

Within every one of customers, over 60 % of members are living in the developing globe. However banks in addition to some other financial organizations motivate all their own clients to utilize mobile devices for banking matters, the bad way in the adoption with this kind of new modern service can make it essential to examine the aspects encouraging the m-banking services adoption in each developing and developed countries[21], to deal with various elements impacting on technologies adoption, when getting into account the truth that persons are very weak link in information technology adoption ([7]; [41]; [54]).

Additionally, the literature of m-banking adoption generally depends on TAM as well as its adjustments [49]. The TAM is made up of a couple of essential independent factors, for example: 'perceived usefulness_PU' and 'perceived ease of use_PEOU'. Several experts[62] recommend that, to be able to present much greater details and forecasts of a person adoption purpose or conduct, the TAM requires to become expanded with extra predecessors like self_efficacy, establishment assist, voluntariness and anxiety; recognized mobility and recognized quality and recognized language self-reliance [62]. A decade later, [60] recommended an expansion of theoretical of the consequently and TAM, TAM2 was suggested with a number of extra structure (besides PU and PEOU) to describe purpose in conditions of cognitive instrumental and public impact processes procedures.

Many of studies concerning m-banking adoption and e-banking, everybody had performed on a various problem. Utilizing technologies approval theory and model of designed conduct, [37] discovered recognized effectiveness, recognized simplicity of use, self-efficiency recognized credit and also recognized financial expenses, as efficient aspects on choice of clients for utilizing m-banking. Kim, et al., had a study on results of main trust of clients on m-banking adoption [26]. They described the signals of primary trust as relatives' advantages, organized guarantee, business popularity, and choice for relying the individual. Luo et al examined the results of various elements of trust and risk on adoption of m-banking [38]. They revealed the various elements of trust have various results and a couple of aspects of efficiency and risk have direct effect on adoption. [27] had analyzed with the aim of examining obstructions in adoption of m-banking services in The UK. Their results present that compatibility, risk and also perceived usefulness are significant aspects in m-banking adoption. [56] created the results of religious dependence and commitment on the purpose of accepting of Islamic mobile banking [56].

[46] looked into aspects impacting on the clients' purpose of utilizing m-banking by indicates of the software AMOS using (SEM) structural equations modelling. [39] in a study examined the results of main trust on the m-banking adoption in Kermanshah and pointed

out that organized confidence is among the powerful elements for main trust. [29] released and examined an Innovative Technologies Approval Design for the adoption of m-banking by clients. They also merged some elements of Technologies Approval Design using Diffusion of Improvements Concept for much better realizing the conduct of m-banking customers. [21] given a list of aspects impacting the utilize of m-banking by clients in Iran. That research shown a theoretical design to describe the adoption of m-banking. [11] attempted to realize the principle of m-banking adoption based on aspects like security, trust and behavior in Thailand. This document introduced a conceptual design as well as a number of claims to determine the adoption aspects of Thailand's m-banking during its emergence.

In a progressively competing environment, wherever client devotion is reducing, m-banking provides the banks the possible to obtain competing benefit, retain and obtain clients. Additionally, it helps improved client fulfillment by worth added in cell phone solutions, decreased costs and cross selling ([52]; [61]). A key specific function about m-banking, in comparison to additional channel technology, is the several accessibility methods. While the greater part of banks provides several form of m-banking service internationally adoption rates fluctuate, also between nations with related financial situations [31]. Adoption rates are commonly larger in developing nations as compared to developed nations. Tries to describe such variations are already restricted. Such as, [9] used a competing framework to inspect m-banking ending that current supply channels, market situations and awareness were essential. Additionally, they surmise the ROI for banks could have an effect.

Variations in adoption can additionally be relevant to the degree of competition in marketplaces, country prosperity as well as the markets of telecommunications [47]. Particularly related to cellular network technology, that m-banking is definitely an instance of this, [57] deduce that factors relevant to the country in conditions of fortune, culture, trade, mobility, cosmopolitanism and time may support describe global variations in the level of diffusion. In common m-commerce, of which m-banking is an essential part, is subsequent a various diffusion design compared to e-commerce, an opinion consequently is available on what the total aspects tend to be impacting on bank adoption of m-banking [30].

3. Banking Industry

Banking has a pillar role in the development of the economic sector. Information technology revolution that the current century has seen had its great effect on the process of banking. Customers do not need to queue for services as often. Virtual banking and e-banking are current common forms of providing banking processes to the users. There are four different virtual banking categories: Internet banking, ATM, mobile banking and telephone banking (Wendy et al.2005).

ATM

Automatic Teller Machines (ATM) has been around for quite some time over the years (Kass, 1994). However, they have always been about being an outlet to provide the bank customer(s) with whatever services the bank can offer. ATMs are considered the first virtual bank in banking history.

Internet Banking

With the current involvement of the world wide web in the daily activities of our lives it is only natural to utilize the internet in the process of banking. Different banks have their own approaches to internet banking through their websites by allowing the customer to access the bank services by using specific credentials.

Telephone banking

When an account holder faces some troubles or needs to perform a banking process that other types of outlets cannot provide, telephone banking can be utilized to perform this process or transaction. Bank CRM team have a universal number that customers can call to perform the process needed. (Sundarraj, R. and Judy Wu 2006).

Mobile banking

The development in mobile technology (i.e mobile phones and smartphones) provides an outstanding outlet for the banking industry to provide ease of access to its services for their customers through their smartphones. Smartphone can connect to the internet and therefore can become the account holder personal outlet to the bank's services (Cracknell, 2004).

4. Mobile Banking

Mobile banking is simply defined as conducting banking services through mobile devices and phones. Banking services include balance check, money transfer, payments, account transactions, etc. Mobile banking is seen as an increment to the existing infrastructure of the bank to increase the reach to consumers of the bank services (Gavin Troy Krugel 2007).

Mobile banking has grown in popularity in many parts of the world since it requires little to no infrastructure. Mobile banking is also popular in countries where the large portion of the population is unbanked. In such places, banks are found mainly in the big cities. This requires the customers to spend lots of time in traveling to reach the bank of a bank branch. Zain company has launched its own money transfer business, ZAP, in kenya and several other African countries in 2009. Easy Paisa is also a money transfer service that was launched in Pakistan with cooperation of Taameer Bank in Q4 2009.

A mobile phone nowadays is an integral part of the consumers. Understanding the importance of utilizing these devices has been illustrated in previous studies (Aarnio et al., 2002). The technological development in the sector of mobile phone is growing rapidly. These devices can access the internet. However, the attention given to utilize mobile phones as another banking service channel is less than other e-banking approaches. The main reason which has been highlighted by different studies was security ([9]; [10]; [37]). Countries like china and brazil have seen an incremental reach of 100% in a period of a year because banks have jumped the traditional service models and implemented mobile service models directly.

Other countries have seen incremental surge in mobile banking such as: UK, Singapore, USA, South Korea, Sweden and others. The banks in these countries have implemented different services for mobile banking to their customers. In South Korea for example, the number of transaction using mobile banking has increased to 104% in 2005 (Korea Times 2006).

5. The Benefits of Mobile Banking

Effective ways to improve customer service is through better information exchanging with the customers. For example, an alert can be sent to the customers notifying them once a limit has been passed on a payment value that their cards can offer. With this notification, the owner can be alerted on the amount of money that has

been used to do a purchase. Giving the customer full control over their spending.

Bill payments reminders are another category where the bank can inform its customers through their mobile banking application with the dates and times required for any specific bill. Payments information can also include installments and outstanding loans repayment. The customer can authorize the payment required over their phone to increase the level of convenience. Cheque payment and stop cheque can also be services included in the mobile-banking service.

Mobile-banking has an advantage over electronic banking since the utilization of mobile phones reaches different social level if not all of them. The applications of mobile device break the limitation of electronic banking since they allow for continuous usage of banking services. A German bank estimated that the transaction done through a clerk costs around 2US$ while mobile banking transaction cost around 15 cents.

Personal messaging, payments profiling, potential costs effectiveness are only few reasons that can persuade the banks to seek after mobile banking. Providing banking service over mobile messaging interfaces with marginal costs is an added bonus. These messages are directed towards specific services, making more personal to user and easier to profile.

Mobile banking increases the area of bank service implementation since a mobile is almost always with customer anytime-anywhere. Therefore, the geographical area increases. Visiting the bank or an ATM by the customer to perform a transaction is less and less needed by the customer. Research indicates that the number of footfalls at a bank's branch has fallen down drastically after the installation of ATMs. As such with mobile services, a bank will need to hire even less employees as people will no longer need to visit bank branches apart from certain occasions.

With the installation of ATMs, the number of footfalls decreased in a bank branch. Mobile service can aid in making the bank less dependent on employees as people will no longer require to visit the banks unless a visit is required. Some Indian telecom operators are offering money transaction services over a mobile. With such development, the bank can develop a phone based credit system that can make credit cards redundant. This will also improve the process of credit card fraud and offer enhanced customer convenience.

6. Banking Industry in Iraq

The financial system in Iraq is represented by the banking sector. It deals with a significant amount of currency the sector is also controlled by government, private and various banking institutions. The assets that the banking systems controls worth 329 trillion Iraqi dinars. This accounts for 318% of the country GDP. The number of private banks provided in Iraq meet s the levels required and their services are provided to the society.

Like other banks, the banks in Iraq offer different services that includes: deposits accepting, industrial letters of credit issuing and trading. Housing projects loans are the current focus of Iraqi banks in the current times. Car loans are also another focus point for the banks. Some of these loans are interest based others are free of interest.

Credit cards service which are considered common worldwide are consider new in Iraq. Credit cards were launched in the country in 2005. The Iraqi government however provides great support to state-owned banks. This may impact the financial sector negatively. However, the number of Islamic and conventional banks meets the required levels in Iraq.

7 Iraq Banking Histories

The history of banking in Iraq can be discussed in two periods: before 2003 and after 2003. The reason for the periods choice is because of the change in the political system and the security situations. The banking law of 2004 and CBI law 2004 were introduced after 2003.

8. Iraqi Banking Before 2003

The banking history of Iraq can go as back as the 1930's when the Iraqi currency board was founded in London. The board responsibility was to relegate the issuance of notes and reserve maintenance of the Iraq dinar. Foreign banks and several private banks have started operating in Iraq in mid-1930's. after thirty years, 1964, the government of Iraq has nationalized all the banks, the insurance companies. The nationalization included the Rafidain bank one of major banks in Iraq alongside the Rashid bank. Financing the government was largely profitable for both banks. The profitable era was during the 1980s. In 1990, this profitability was needed during the UN sanctions over Iraq.

The banking system was supervised and controlled by the government from 1990 until the end of Baath party's authority. During the sanctions era, early 1990s, the government tried to support the private sector businesses through allowing local private banking to involve in the banking sector. This is to aid in offsetting the economic boycott impact. During the second Gulf War (2002-2003), the situation of the banking sector in Iraq was bad. The ministry of finance, Baghdad stock exchange, CBI and both Rafidain bank and Rashid bank were all completely looted. The financial condition was near a collapse.

9. Iraqi Banking Since 2003

After the American army came to Iraq in 2003 and the collapse of the Baath party, a new banking system commenced. In the reconstruction of the banking system, the Coalition Provisional Authority (CPA) was confronted with a structure unlike that of neighboring countries. After Iraq invasion by the American army in 2003, and the government collapse, commencing a new banking system was a must. The CPA (Coalition Provisional Authority) noticed that the

Iraq banking system was unlike the neighboring countries. Iraqi banks recovery was not possible by depending only on liquidity-driven profits. The rate of interest was high at 17% confirmed by CBI. The demand for credit was high and the main source for banking income was money loans. Islamic banks suffered even more than their conventional counterparts. Islamic banking experts were few as only one Islamic bank was there in Iraq. The Iraqi Islamic Bank for Development and Investment.

The banking systems assets in March 2003 were at $2 billion. This number represented about 8% of GDP. 85-90% of the assets was accounted by the Rafidain and Rashid governments banks. The rafidain assets were at $1.03 billion while the Rashid were at $750 million. Reading the situation, it is possible to conclude that the situation of Islamic banking in Iraq was bad. By 2004, new provision and regulations were initiated in the banking law. The law models the operations of the Iraqi banks in similarity to the western approach. The new regulations granted the CBI full and legal operational authority. The major development of the banking system is it became

very modern and in tandem with modern banks operation internationally.

Conventional banking in Iraq is more developed than Islamic banking. Islamic are not as supported as the conventional banks since the government state-owned banks have developed to adopt new regulations as opposed to Islamic banking system. Most if not all of the Iraqi government offices are dependent on the governmental banks.

10. Banking Products and Services in Iraq

The banks in Iraq offers a wide range of services. Banking related to real-estate is and exclusive service done the Real-Estate bank. Other services offered by the banking in Iraq include as follow: (Current accounts, Savings accounts, Advances and Short-term loans, Performance bonds and Advance payment, Time deposit, and Bills facilities and Short-term overdraft).

Consumer finance is not encouraged by CBI and the Real-estate banks is responsible for real estate lending. The trade bank of Iraq is the only public bank that offers electronic banking facilities, products and services. Among these products is the platinum credit card (international) and other global cards that can used by customers internationally. The bank also issues Master card and Walvis card; those are some of the modern systems that has been adopted in the development process of the trade bank. They are considered as an extra service to the customers.

11. Overview of Banking Sector of Iraq

Iraq economic system is an example of a well-developed economy in the world. There are 7 state banks, 12 foreign, 47 private and 12 Islamic banks. The banking sector is governed by the central bank of Iraq. The investment opportunities in Iraq are very high because of the banking sector development (MarcoPolis, 2012).

Before private banks allowance to operate in Iraq during the late 1990s by Saddam Hussein, banks were state-owned. According to the department of state in the US, 96% of the banking assets currently in Iraq are supervised and controlled by state-owned banks. The Rafidain bank was the first bank to be established in Iraq in 1941. The bank was state-owned by the federal government of Iraq. For more than fifty years, the population of Iraq banking was done nowhere else. Foreign financial institutions were not allowed to operate (Irfad, 2015).

Figure 1 illustrate the structure of the banking sector in Iraq. According to statistics, private banks capital increased to 5.9 trillion Iraqi dinars. This is the result of the central bank's instructions to rise the capital of the banks. Currently private banks possess the greatest portion of the total capital around 78.7%.

The distribution of private banks capital is as follow: traditional banks with 53.5%, Islamic banks 22.5%, and the rest 2.7% are with foreign banks branches operating in Iraq. 21.3% represented by state-owned banks of the total capital. the capital percentage of GDP reached 2.4% in 2012. The numbers are modest in its contribution to GDP. The public sector monopolizes the government transactional activity despite the large percentage dominance by private banks. Figure 1 below, illustrate the income statement for the central bank of Iraq during the years 2012-2013 (CBI, 2015).

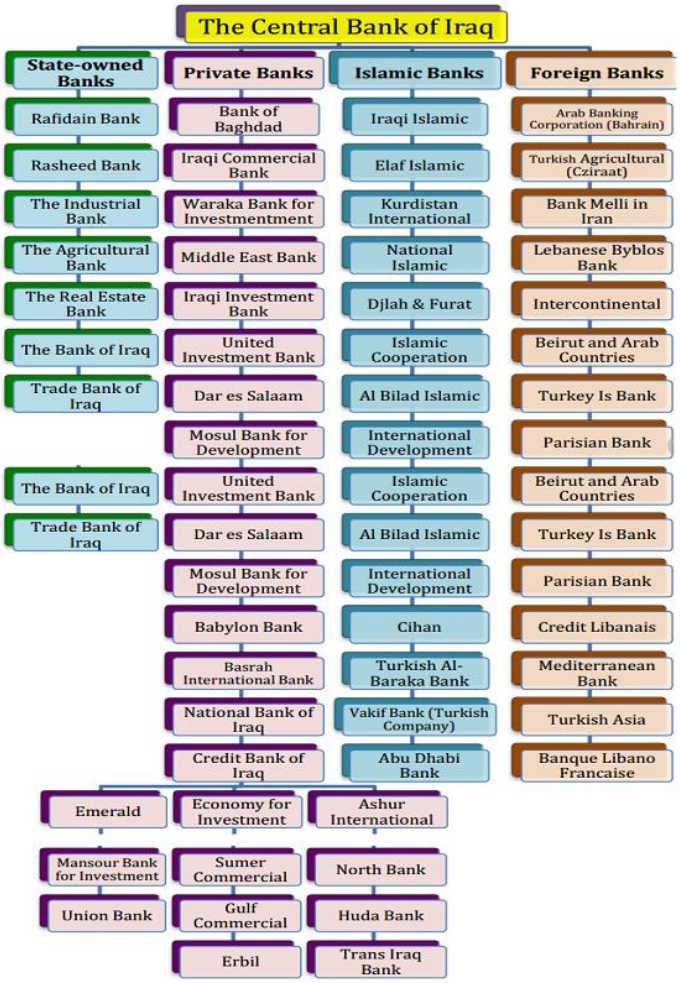

Figure 1: Banking Structure of Iraq (CBI, 2013)

12. Mobile Banking Adoption

Mobile banking is rising in adoption because of the dramatically technological improvement that the mobile industry is seeing in the last decade [48]. The amount of the population worldwide that uses mobile is around two billion. This number is on the rise. the mobile phone has had a pervasive impact on the lives of people. There has been a significant effect economically. This impact is about twice as large in the developed countries [28].

Mobile banking and m-commerce are very related to each, to be more precise, researchers suggest that mobile is part of m-commerce. The number of mobile devices users can be deducted from the number of customers using it. Dahlberg, Mallat, Penttinen, & Sohlberg, 2002, colcluded that the key elements that affect the satisfaction of cutomers were risk, precieved usefulness and trust. Poverty aliviation has been a major objective in several applications. This is how pervasive the effect of mobile phones in the developed countries.

Any bank is ought to support different business strategies. The objective of those adopted strategies are to strengthen the services customers and also in adopting different technologies and provide their services to the clients. A training time is required for the customers to adopt to new technologies which is dependent upon the reliability and ease of use of the implemented technology. Security and privacy of customer's information are the most effective attributes that has a direct effect on customer's usage of mobile banking. The performance of a bank is measured by the level of trust and reliability of service availability to customers.

The transactions conducted by the customers through the bank needs to maintain its security. This requires advance technologies processes to provide safe delivery channel. Lack of security is a major fear and ergo effect the adoption of mobile baking services. Customers willingness to use mobile banking is enhanced by the decision makers experience and expertise [25].

Factors that explain and determine the adoption of m-banking has been studied using different models such as: theory of planned Behavior (TPB), model of diffusion innovation, Model of Technology acceptance (TAM) and other related models.

According to [35], Roger's diffusion innovation model was found to be relevant to the topic since utilizing mobile media channel to perform m-banking services is relatively new to customers.

In 1983, Rogers developed the innovation diffusion theory, its model is very well known to be utilized in studying innovation adoption. Five characteristic defines the adoption rate according to this model: complexity, relative advantage, compatibility, trial-ability and observability. These characteristics are positively related to each other except the complexity which relates negatively to the adoption rate. Technological advances require the examination of individual acceptance in the era of information systems research [23]. Proposed by Davis in 1989, TAM is an adaptation model for new technologies that is based on TRA model. TAM objective is to highlight the behavioral intention towards a system and the perceived usefulness.

Influence is effected by the ease of use of the system and the usefulness perceived from that system. In 2000, Venkatesh and Davis developed TAM 2 and included the subjective norm of the construct over the original model.

Several studies have focused on the adoption of mobile banking in developing countries ([21]; [45]; [49]). These studies however, did not focus on the adoption rate stages of m-banking. Mobile banking is considered relatively emerging service therefore the technology has not been very wildly adopted. Factors identification for the adoption is an important research attention. According to [20], perceived ease of use and structural assurance has an effect on trust in mobile banking. The examination of innovation attributes effects and trust in knowledge-based m-banking adoption has been studied by [36]. It was drawn on trust theory and IDT. The attributes that were included in the study were: compatibility, ease of use and relative advantage. Integrity, benevolence, perceived competence are attributes of knowledge based trust.

A report by [26], highlighted that relative benefits, structural assurance and personal propensity has an effect on initial trust in m-banking. The integration of Task technology-fit theory and UTAUT was done by [64]. This is to examine the m-banking user adoption. Perceived risk and performance expectancy were found to significantly affect mobile banking services intention of use.

Socio-economic and individuals' perceptions were found to have a link by some studies. Other factors can influence the adoption of mobile banking. According to [16], mobile banking adoption degree can be limited by the infrastructure were the m-banking services are implemented, example, wireless technologies are spread widely throughout the world even in poor countries, however, their distribution is always in equality. According to [21], the factors that determines the use of mobile banking in Iran were: ease of use, cost of use, trust, usefulness, the need for personal interaction, risk perception, compatibility and credibility.

The combination of TPB and diffusion of information theory has been done by Tan and Teo in 2000. This combination was utilized to explain the intention of adopting internet banking. The study reported that compatibility, relative advantage, perceived risk, trial-ability, perceived self-efficacy, and the support of government of the internet commerce were important determinants. According to [10], mobile banking adoption was affected by the number of banking services required, perceived risk, relative advantage and trial-ability attributes. Their study limited the risk construct to information security and risk concerns. Awareness is an important factor in mobile banking adoption according to [13]. According to [34], mobile banking in Finland is still in its "infancy stage" despite the great number of advantages it offers.

13. Literature Review and Related Works

A review of the academic and professional literature the aim of the review was to consider the history of the improvement and use of mobile banking system, underlying theoretical frameworks, existing literature regarding the level of this system, potential obstacles and solutions to the issues for the implementation of mobile banking, and current initiatives to encourage better use of mobile services. The aim of reviewing this literature is to provide background regarding the possible difficulties to the adoption of m-banking. The literature review provided empirical evidence from studies conducted in this area. The studies previously conducted will provide information on current trends in these new system on a national and global level.

The available literature shows that the any new system adoption, for example new technology, ideally entails developing a model ([1]; [63]). Utilizing the model is thought to support implementation mainly because it tends to make the process more feasible and organized, increasing the likelihood regarding successful roll-out about a policy or perhaps a program [24].

Mattila (2003), has performed a survey for over 1300 customers on banks in Finland. His research findings showed various socio-demographic factors for the adopters and non-adopters of m-banking. The adopter side of the formula are young participants with an age range of 25-34. A mix between students and white collar workers at an income level of average. While [35], utilized qualitative methods. His findings illustrated that customers' attitude toward adoption is influenced by innovation parameters. Both studies have highlighted the possible risks that might come with mobile banking adoption.

Another study that attributes demographic distribution was the study conducted by [32]. The findings show that in china the adopters of m-banking are wealthy and working young population. Demographic distribution might not be the only factor to answer the question of why or why not people are adopting m-banking. Trial-ability, relative advantage, number of services provide by the bank and the perceived risks were found to have an effect over m-banking adoption [10]. Technology adoption model, task-technology fit model [18] and initial trust model were combined together in (Afshan and Sharif (2016) and [45]). Perceived trust and risk are considered related but different of perceived credibility. Credibility means that the m-banking service has no privacy or security threats. This factor was found to have a significant effect on the intention of m-banking adoption in comparison to other factors (i.e. usefulness, ease of use, financial cost and self-efficacy).

Statistical studies indicate that electronic banking has grown non-linearly and made unprecedented jump in recent years. E-commerce conducted in 1998 via the internet was about $40 billion; the rate has rose to about $110 billion by the end of 2000. In this regard, available predictions suggest an increase in the use of the internet in banking from 6.6 million in 1998 to 32 million in 2003, suggesting continuation of explosive growth in this technology [2]. Despite countless advantages of mobile banking, the use of mobile phone or tablet has not been expected a lot for conducting banking operation or getting access to financial information [14]. However, reports of public media have announced that it is expected that one billion people in the world will use mobile banking services by 2017 [51].

According to Tahwa (2014), the maturity if the bank IT capabilities are related to the individual context and emerging patterns. The customers are required to be literate about this technology to be able to adapt to it. The obstacles that faces this adoption can include individual attributes such as knowledge in IT, training, motivation, skills and openness to new technologies ([21]; [58]).

Knowledge development and skills training is an important process to improve the process of technology adaptation. This process must be continuous [6]. The quality if training aids in making the user anxiety under control towards the new system. Also the availability of training both technical and knowledge is very essential [53]. A number of older customers simply cannot use technology. Some of them may not have had sufficient experience with technology, and many may have used traditional methods for so long that they view using computers as too complex.

[15] in this regard asserts that there is every tendency that m-banking in Gulf countries in general, and in Iraq republic in particular, may

continue to dwindle as a result of poor perceptions of Internet banking users and/or due to lack of adequate skills in using technology to solve their banking needs. These factors might hinder adoption m-banking in these countries where the level of Individual factors technology are suboptimal. Besides that, the m-banking is round-the-clock availability; but in developing of nations such as Iraq, where consumers are reluctant to continue using m-banking [15].

Banks that has a structure that is not flexible and cannot cope with the environment can fail in a short period of time. Customers are also required to be flexible and able to adapt themselves to the environmental shifting. The service ease of use can shorten the time required to educate the customers about the service. Initial trust of the user is important so that they can rely on the services and overcome their initial fears and perceptions ([12]; [17]; [33]). Given the above and previous research conducted into mobile banking, in this research, considering change of these contexts and test of a new proposed model according to particular circumstances of Iraq, an attempt to be made for exploring the situation of mobile banking and factors affecting it.

Mobile banking has been examined by researchers from user adoption perspective in emerging artifacts of ICT [64]. Adoption by the user is a key requirement in the realization of the adopted technology utilization and value [42].

Mattila (2003), has performed a survey for over 1300 customers on banks in Finland. His research findings showed various socio-demographic factors for the adopters and non-adopters of m-banking. The adopter side of the formula are young participants with an age range of 25-34. A mix between students and white collar workers at an income level of average. While [35], utilized qualitative methods. His findings illustrated that customers' attitude toward adoption is influenced by innovation parameters. Both studies have highlighted the possible risks that might come with mobile banking adoption.

14. Contribution and Significance of the Study

The results coming from this study are anticipated to play a role to the adoption literature inside region of m-banking and in the developing countries. More particularly, to link the gap that available in Iraq as a beginning point for more study. This investigation study furthermore is usually used by banks to enhance m-banking services and to determine those aspects that can either lead to the failing or success of the m-banking services and this might be more utilized for conclusion making. The findings offer an insight into the issue-facing uptake of mobile banking by the customers in the field. Separate from that, the results additionally can be used in making an efficient technique to attain all the clients without m-banking solutions. To academia, the results of this study supports in adding information to m-banking in Iraq. In addition, the study is a guide for upcoming research. The outcomes of this research can be applied and beneficial for both banks and costumers. This study can be implemented by the banks to increase their profitability, performance, and service quality. Banks can pay more attention to Environmental factors for the long-term survival. Banks can use the research model to improve their knowledge on why certain banks decide to adopt m-banking while other banks not.

15. Conclussions:

In this study, the existing of mobile banking frameworks for both private and public banks in developing countries along with Iraq has been discussed briefly. A review of these studies showed that the bank section in Iraq needs continued attention to get government support, Iraqi bank's services have limited developed over the latest years in the different levels of banks and mobile services: tertiary, secondary and even the primary level, as well as in measuring the practicality of the existing approach. The findings indicate that interventions and programs designed to increase the mobile banking adoption need to include a focus on the practice level because that is decision making regarding adoption occurs, in addition to help IT managers within banks to change their workflow to obtain the most services, along with addressing privacy concerns and explicitly acknowledging. Additionally, the study will suggest a variety of banks settings in order to ensure higher generalizability associated with the outcomes. All these results can be mainly relevant and timely with regard to decision maker who presently face the obstacle of mobile banking adoption in the Iraqi banks environment. The limitations of this study includes that there was single-source bias, as the collection of information was from secondary sources only. Also the study has more of a judgmental conclusion as there is no post data assessment. Banks should figure out how to rationalize their customers' needs and priorities, applications, and their own premise information, and after that merge their framework accordingly. Therefore, it is recommended for future researchers to conduct a field survey by collecting primary data and conducting statistical tests on the study variables test the variables implicated in the findings of this study.

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