



NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF BANKING AND FINANCE
BANKING AND ACCOUNTING PROGRAM

**THE IMPACT OF INTERNET BANKING ON CUSTOMER
SATISFACTION: A CASE STUDY OF SULAYMANIYAH CITY,
IRAQ**

BZHAR OTHMAN ABDALLA

MASTER'S THESIS

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MASTER'S THESIS

THESIS SUPERVISOR
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NICOSIA
2018

ACCEPTANCE/APPROVAL

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DEDICATION

I would like to dedicate this study to my parents for whole sacrificing with me until I get this time, and the accomplishment of this thesis would have not been possible without them, I would like to express my deep gratitude to my sisters for their sustainability support and encouragement,
Also, I want to express my very great appreciation for all my family members and my friends to help me during this study.

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ABSTRACT

THE IMPACT OF INTERNET BANKING ON CUSTOMER SATISFACTION: A CASE STUDY OF SULAYMANIYAH CITY, IRAQ

The main objective of this study to determine how is internet banking influence of customer satisfaction, in this study customer satisfaction is a dependent variable including the dimensions of service quality such as customer expectation, reliability, assurance, customer loyalty, risk, trust and security in another hand the independent variable is internet banking including ATM, web banking, mobile banking and POS machine, The present study is a quantitative investigation was adopted by the researcher and primary data were collected in Sulaymaniyah city by follow using the survey method and focus on the questionnaire and interview to get the specific data in the range of are, this study was conduct and use data from customers' of nine banks who six of them are commercial banks include local and foreign banks, two of them are Islamic local banks and only one of them related to Iraqi government bank. also 200 questionnaires randomly distributed and 191 were returned by customers and it means that only 9 of them non-return and the customers from those banks where provide the internet banking service, however, the data were analysed by the SPSS software version 23 and researcher used different statistical technique such as reliability test, Cronbach's alpha, correlation and regression, based on the results internet banking has a positive and significant correlation with customer satisfaction, Therefore, the internet banking has a positive impact on customer satisfaction significantly. the data has in a high level of reliability and according to the recommendations the banks should adopt and follow the internet banking service and decrease the cost and frees on service the government should help and make a facility to foreign banks to investment inside the country and provide a developer service.

Keywords: Internet Banking, Customer Satisfaction, ATM, Mobile Banking, Service Quality

ÖZ

THE IMPACT OF INTERNET BANKING ON CUSTOMER SATISFACTION: A CASE STUDY OF SULAYMANIYAH CITY, IRAQ

Bu çalışmanın temel amacı internet bankacılığının müşteri memnuniyetini nasıl etkilediğini belirlemektir. Bu çalışmada müşteri memnuniyeti, müşteri beklentisi, güvenilirlik, güvence, müşteri sadakati, risk, güven ve güvenlik gibi hizmet kalitesinin boyutlarını da içeren bağımlı bir değişkendir. Bir başka el, bağımsız değişken, ATM, web bankacılığı, mobil bankacılık ve POS makinesi dahil olmak üzere internet bankacılığıdır. Bu çalışma, araştırmacı tarafından nicel bir araştırmayı benimsemiş ve Sulaymaniyah şehrinde temel veriler anket yöntemiyle takip edilerek takip edilmiştir. Anketin kapsamına giren belirli verileri elde etmek için anket ve görüşme yapılmış, bu çalışma, altısı ticari banka olan dokuz bankadan müşterilerinin yerel ve yabancı bankalardan, ikisi de İslami yerel bankalardan ve sadece bir tanesinden oluşan dokuz bankanın müşterilerinin verilerini yürütmek ve kullanmaktır. Irak hükümet bankası ile ilgili. Aynı zamanda 200 ankete rastgele dağıtılmış ve 191'i müşteri tarafından iade edilmiş ve sadece 9 tanesi geri dönüşü olmayan ve internet bankacılığı hizmeti veren bankalardan gelen müşterilere verilmiş, ancak veriler SPSS yazılım sürümü 23 ve araştırmacı tarafından analiz edilmiştir. güvenilirlik testi, Cronbach alfa, korelasyon ve regresyon gibi farklı istatistiksel teknikler, internet bankacılığı sonuçlarına dayalı olarak müşteri memnuniyeti ile pozitif ve anlamlı bir ilişki içerdiğinden, internet bankacılığının müşteri memnuniyeti üzerinde önemli bir etkisi vardır. Veriler yüksek bir güvenilirlik seviyesine sahiptir ve bankaların internet bankacılığı hizmetini benimsemeleri, takip etmeleri ve masrafları azaltmaları ve devletin yabancı bankalara ülke içinde yatırım yapmalarını ve bu ülkeye yatırım yapmalarını sağlayacak bir hizmet sunmaları ve vermeleri gerektiği tavsiyelerine göre bir geliştirici hizmeti.

Anahtar Kelimeler: İnternet Bankacılığı, Müşteri Memnuniyeti, ATM, Mobil Bankacılık, Hizmet Kalitesi

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LIST OF ABBREVIATIONS

E-BANKING, IB: Internet banking

EFT: Electronic funds transfer

IT: Information technology

ICTs: Information and communications technologies

ATM: Automatic Teller Machine

POS: Point of Sale

SERVQUAL: Service Quality

IDT: Innovation Diffusion Theory

TTF: Task-Technology Fit

TAM: Technology Acceptance Model

UTAUT: Unified Theory of Acceptance and Use of Technology

TRA: Theory of Reasoned Action

TBI: Trade Bank of Iraq

CBI: Central Bank of Iraq

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter explains briefly about internet banking and its dimensions also explain the customer satisfaction and its dimensions, however, include the case study and background of the study, problems of the thesis, aim of the thesis, describe why this thesis is important and explain the limitation, and explain the whole chapters summarily.

1.2 Internet banking and customer satisfaction.

Internet banking also known as electronic banking or E-banking, the internet banking changed the banks traditional service to technology service in a modern time. According to Choudary (2013) E-banking is known as an electronic funds transfer (EFT), also it is use to transfer money between accounts between customers and this process is easier than transferring money by hand or visiting a branches. However, by the development of internet and communications around the world and the technology had a significant role to increase E-banking service for customers because of that service and development of banks around the world, most of the banks is starting to adopt that system. Therefore, regarding to cost E-banking is cheaper enables a customers to avoid visiting branches for every transaction and all of them can control and check their balance in 24/7, another alternative is using an application on their smartphone or using the banks' website. Today, most

banks adopt an online banking service, using Internet banking services lets the bank to save cost by using fewer employees and reduce expenses.

Therefore, developing internet banking in Iraq and Sulaymaniyah doesn't date back that long, Sulaymaniyah is one of the 18 Governorate of Iraq, also E-banking has made a significant growth in last ten years, this growing related with the growth of technology and broadband service in the country. Several commercial banks, Islamic banks and foreign banks rely on E-banking such as Bank of Bagdad, Cihan Bank Islamic Investment and Finance, Kurdistan International Islamic Bank for Investment and Development, Byblos Bank. But unfortunately, until now the Central Bank of Iraq hasn't adopted E-banking services and CBI hasn't made it an obligation for government bank to follow this service and use it for daily work to providing for government employees and other clients. Internet banking lets the customers do transaction in any time they need it for example the customers don't have time to do their transactions and business in the banks open hours, while using internet banking customers can do the transactions after bank's open hours as exchanging money, trading, investments, buying/selling stocks and bonds, technology has a significant impact on every bank's service.

One of the motives behind the rapid rise of the E-banking and E-commerce in the world is operating cost, because transactions via traditional service by banks are more expensive but via the modern system (E-banking) is cheaper for both customers and banks, any cost on transactions are transferred to the customer as a commission or fee based on Rose and Hudgins (2005) As a result, the applications of the technology improved business in banking sectors. However, the internet banking service becomes more global and lots of countries develop that service and use it until today (Worku et al, 2016). Because of Internet banking, there are global transactions that exclude geographical borders, when you access the internet it means that you have access to the entire world as Al-Refaee (2012) explained.

The financial institution embraced internet banking in daily works and will use that system continuously in the future. In the last two decades, many of the United States banks added internet banking service for their customers. The

customers became more comfortable with the banks that offer internet banking services and it will be necessary for those banks to adopt internet banking service until current time based on Simpson (2002). Information technology (IT) and the internet had impacts on financial services that were provided by banks. Therefore, banks use technology as a source of competitive advantages to stay powerful in the market and use it to provide new products in a lower cost with an improving efficiency and effectiveness of bank's operations regarding to Callaway (2011). According to Nimako et al (2013) consideration of information and communications technologies (ICTs) changed the system of banks transaction that customaries are getting most useful from the internet banking system, after using ICTs the banks works are easier than before for providing a product, advertising, controlling and improving the quality of banks services. Also, there are several banks that reached the traditional banking system in a technology age. furthermore, the level of the customer satisfaction consider the quality of internet banking service reached by that banks provided to customer, if the customer has been a high level of satisfaction it will be the highest impact to save a customer's loyalty for banks also we can say there is a positive relationship between customers satisfaction to internet banking service and customers loyalty, and high-quality service is a key to let a banks be a sustainable competitive advantage in the market as mentioned by Shrimali (2015).

Internet banking is the latest performance way to banking service that delivered to customers, and internet banking includes Automatic Teller Machine (ATM), Mobile banking, Web banking and Point of Sale (POS) machine. The main objectives of any financial institution are to maximize profit and revenue for these banks, owners and shareholders. Therefore, using internet banking services, there is a great opportunity to minimize cost and expenses according to Mihalciuc (2008). according to one of the reports by the international monetary fund, the numbers of commercial banks in Iraq at the beginning 2004 there are only 26 commercial banks and they were increased to 69 banks by 2017, also it means that the commercial banks increased from 2004 to 2017 by 165% and based on same recourse in the table 1.1 has been

shown the number of ATMs per 1,000 km² in Iraq are 0.2629 ATMs in 2008 and this number increase in 2016 to 1.2226 ATM.

Table 1.1: numbers of ATM's per 1,000km²

Years	Number of ATM's per 1,000 km ²
2008	0.2629
2009	0.4674
2010	0.8864
2011	0.9026
2012	0.9440
2013	0.4904
2014	0.7667
2015	0.9256
2016	1.2226

source: international monetary fund

Mobile banking is part of internet banking and customers can do banks work through their mobile by downloading an application or logging on banks website to access their account. Additionally, the customers can do most of the daily works through that application and full monetary for their account. For example, transferring money between two accounts in same branch or in between two accounts in different branch, exchange money in any time the customer need in 24 hours in 7 days in a week, buying product in any place in the world and paying money online, acting in bursa for buying and selling stock and bonds. However, there is web banking and this type is similar to mobile banking but customers can sign in by the website not mobile. POS machine also has known "point of sale" or "point of purchase" is a machine that uses to payable a payment of goods and services by using smart cards of the bank by a customers.

Also, smart cards are another way to connect with E-banking, by using these cards the customers can reach any goods and service in the world to buy it or sell it. customers using ATM to deposit or withdrawal money by these cards in another word this card like the electronic wallet and the customers no more

obligated to carry money on their wallet as mentioned by Abdalla (2013). Increasing demand for a higher quality of service provided by banks to customers has the effect to the financial institution, and it will have a role to add technology to their daily works and better performance for banks and more efficiency to be satisfied by customers. According to Iberahim et al. (2016) there are two points that effect on service quality of ATMs machine. First, the reliability of ATM and this situation happened because of a large number of customers' transaction and cash runs out in the machine on the ATMs screen has written "out of service" and in a situation, the machines break down or broken in a mechanical part in the screen shown "system under maintenance". Second, the ATMs service focuses on technology make an offer as touch panel display and a lot of available languages and easy step to do transactions.

According to Sarreal (2017) internet banking has been approved in the 1980s, in 1981 the New York City was the first area in the United States of America that afforded from four banks as a Citibank, Chase Manhattan, Chemical Bank, and Manufacturers Hanover that obtained home banking assistance for their customers. In 1983 the Bank of Scotland awarded to customers' internet banking service for the first time in the United Kingdom also recognize Homelink, for applied that service customers require to connect to the internet via TVs and telephones to pay bills and transferring money. In 1994 the Stanford Federal Credit Union became the premier financial institution in the US that allowed internet banking for all customers. In 1995 Presidential Bank displayed the first bank in the US that allow internet banking service to all customers for entrance their account and after this lot of banks accompanied that system and adopted. In 1999 BofI Holding Inc. has founded the Bank of Internet USA officially as a part on incorporation. By 2000, 80% of US banks use internet banking. In 2001 almost 20% of customers are on that term use internet banking by Bank of America and 3million customers gained from E-banking. By 2010 internet banking expanding faster that internet until today as shown most of the banks offer E-banking for their customers.

Customer satisfaction in a modern banking system is one of the priority that bank makes a focus within to stay their relationship correctly with outside environment, as well as, customer satisfaction in one of the element banks

take carry about it because there is a positive relationship between customer satisfaction and a banks reputation in the market. Also, the attitude of an employee in banks has an impact on customer's satisfaction and loyalty because an employee has a face to face work with customers as explained by Munari et al. (2013)

According to Ozatac et al. (2016) the higher quality of the banks' that provide internet banking service drives to more satisfied by customers, also the higher customer satisfaction drives to customer loyalty. If any bank gets a customer's loyalty and their satisfaction it will get more gain from customers. Customer satisfaction is one of the important factors in the modern world driving the banks to trade competitively. Despite all banks are want to get satisfied by customers and the customers are satisfied with banks because of accepting that services provided to them. Therefore, if the customers are satisfied with the internet banking form banks, the probability they use it again in future and maybe the level of satisfied let them to recommend another pearson to use that bank's service because in general, it is good and appropriate as mesntioned by Adams et al. (2016). Internet banking helps the banks adopt the system to earn more customer for them self. However, and it will help customers' retention and providing best opportunity to achieve customers goal outlined by Wu et al. (2014).

In the technology view risk of a security is one of the factors that affecting customer satisfaction on E-banking and doing security on stability and avoiding from any risk and threat that comes so important to the bank and the customer can do all transaction safely without any fear. And the bank should follow some technical base for preventing the hacker to attack their system.

Ticharwa (2017) said the customers' expectation to product or service should be matched with that service provide by the banks when the customers' expectation and the provide service are not matched the customers will be dissatisfied, Customer satisfaction is the position that the client carries after using a specific commodity or service.

1.3 Background of the study

The Republic of Iraq passed through a lot of situations that had effect on peoples, the Central Bank of Iraq (CBI) uses Dinar as an official currency of the country and Dinar changes by appreciated to depreciated and vice versa by time and now we can say the currency is stable, CBI after 2003 is more independent than before. Although CBI did not adopt internet banking services to all people of Iraq by government banks internet banking is provided by commercial, Islamic and foreign banks. However, those banks don't provide the service now, they want to make this service available for customers soon. If we talk about internet service in Iraq there are lots of communication companies that provide a high-quality service for customers and there is a competition between all companies to prove with of them provides a high-quality service. Also, it means that there are strong columns to build internet banking by all banks in the future to increase the quality of service in Iraq. Based on the report by Central Bank of Iraq about the number of banks in all country, there are 6 government banks, 1 government Islamic bank and local Islamic banks are 10, and there are 14 private Islamic banks in Iraq that are separate from government banks. Also about the same report, there are 24 local commercial banks and 20 foreign banks which 3 of them are under incorporation.

1.4 Thesis Problems

There are some problems that faces E-banking and customer satisfaction, as follow:

1. few numbers of ATM machines in Iraq and Sulaymaniyah.
2. Some of the people are new to using E-banking service.
3. All banks haven't adopted internet banking and they don't provide all services related to E-banking to customers.

1.5 The Aim of the Thesis

The purpose of this research is an investigation of the factors affecting internet banking on customer satisfaction:

1. Does Internet banking have an effect on customer satisfaction?
2. What is the level of customers understanding of E-banking?
3. What is the benefit of E-banking?
4. Does E-banking has impact on improving the efficiency of the banking service?

1.6 The Importance of the Thesis

The importance of this thesis is the determination of the impacting internet banking on customer satisfaction. Also explaining the factors affecting customers' satisfaction and on which based the customers decide to choose a particular bank. Investigation of that problems influence the customers in using E-banking

1.7 Limitations of the Thesis

There are some limitations for this thesis, as it is the internet banking system is new in Iraq and lot of banks including government banks until now they haven't adopted the system yet, there is a lack of researches in Iraq about this service, and researchers can't get a specific or primary data regarding internet banking.

1.8 Overview of the Thesis

This study divided into five chapters which have been briefly explained in bellow:

Chapter 1: this chapter includes an introduction about the whole service as an internet banking and their effect on customer satisfaction, also include the background of this study as a Sulaymaniyah city in Iraq and banks nature were working in there, also those problems were faced with the thesis and major purpose and the important point also finally explain the limitations of our study.

Chapter 2: this chapter is the literature review and beginning with a short introduction, also explain both variables and their dimensions and talk about those previous study where has related with thesis's topic and in final section in a figure explaining the studies' framework.

Chapter 3: this chapter include the model of the study and how to the independent variable affect on dependent variable and make defination to them, explain the hypothesis of the study.

Chapter 4: the methodology chapter also begins with an introduction and in this chapter researcher indicate and mention the ways of a method has been used, However, include the type of data, sample size, population and how to collect the data, and the instruments of data, also explain the thesis-hypothesis and variables.

Chapter 5: this chapter include the analysis of data and explain the demographic section with all question where included and by using statistical tests for section two and three such as KMO test, Pearson correlation, Regression analysis and final test is normality test, in final section explain the results of the hypothesis.

Chapter 6: final chapter include conclusion which gotten funded from the data's result and several recommendations for government, bank's management and make several recommendations to future researchers, also answered the research questions.

1.8 Conclusions

This chapter has explained the topic of the study and discussed the factories influenced of internet banking on customer satisfaction, also mentioned the case study and how is situation of the internet banking system in Iraq and sulaymaniyah, and there are three points as a thesis problems and researcher create four questions for this study, according to the limitation of the thises internet banking system is new and only few numbers of people using it for daily life.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter explains the impact of internet banking on customer satisfaction, determining the theoretical part of internet banking and dimensions of customer satisfaction in previous researches.

2.2 Internet Banking

Shrimali (2015) in his article discussed the impact of internet banking on customer satisfaction and compared with traditional banking brick and Mortar service. Saeidipour et al. (2013) The internet division way can increase value for bank through prerogative in several ways, depending on which to form physical branch (brick and mortar banks) or in form internet banks only, also the imperative view of internet banks only is low value added business transactions for example bill payment, account transfers, lending credit cards, and balance inquiries, through the cheap internet channel. However, there are high value added transactions e.g., customers' small business lending, personal trust services, investment banking through the branch channel. Diniz (1998) prepare a questionnaire about websites of banks to understand of models of web banking and their permission in the United States. He discovers that the banks in USA they are used web banking to get of three different sections: marketing information, transferring products and services by banks, and improvement customers' relationship, and in his survey he focuses on that

most of banks in the USA offer essential and medium services in the transactions to providing to customers.

Reddy and Banu (2018) explained in their study that mobile technology create a revolution in banking industry and global electronic payment system, due to building a lot of opportunities for banks it makes a high convenience to their customers in the developed countries, also and this technology can reach a lot of people in developing market, however, a lot of banks those run face to face with technological system has a significant challenge with new customers and change the economic system of those industries. Jaruwachirathanakul and Fink (2005) they are determined the factors have been a role in internet banking's adoption in Thailand, and they suggest the extraction plans like expanding service value and potential plans like the ease of usage, and confidentiality one of the factors for successful any services in banks because of the customers want to stay their personal information confident. Hernandez and Mazzon (2007) provide different models of internet banking adoption and the empirical result showed that the technological feature, realize behaviour control, and individual feature, the determination of exact applying of internet banking. According to Casalo et al. (2007) internet banking like an assumption channel that authorizes customers to let the service with several ways and banks provide some opportunity for customers to access their bank account in any time they need 24 hours in 7 days.

Based on Anesti (2004) in her master thesis explained the cost operation in traditional brick and mortar banks are higher than internet banking providing by banks. And it means that providing service via online is cheaper than the traditional branch. As data below from United States banks for processing cost for full service by banks and estimated services cost via internet banking is \$0.27 for ATM service and \$0.54 for mobile banking service, but for transactions via traditional branch is \$1.07 is cost. And support calls support by humans is \$10 to \$33 but web-based by self-service about \$1. However, in Greece the cost of service via traditional branch is \$1.40 but via the internet is lower is \$0.01 and According to Yu et al. (2015) based on Bank Negara Malaysia 2012, the numbers of individual users of internet banking were increased from 9.8% in 2005 to 42.9% in 2012 and it means that the users of internet banking from 2005 to 2012 increased by 337.7%. and based on

another survey there are 2.7 million visited bank website in 2011 and it is growth percentage is 16 from a year to year and this is the highest in all southeast Asian countries. Callaway (2011) there are the dimensions for internet banking such as development to reach the market, decreasing the cost of a transaction, market segmentation. Finally, internet banking has three advantages that help the bank to improve their performance such as: expanding to reach for the market, expand of services line, cost of transactions in lower level. Gomachab and Maseke (2018) in their articles explained the impacts of mobile banking on customer satisfaction and the case study from Namibia, Keetmanshoop and they distribute quantitative structure questionnaire to 60 responders, also in this study the authors disclose those factors of mobile banking that influence on customer satisfaction and this factors participate 75% on customers' satisfy and they are includes: reliability, convenience, cost, the system available in another's mobile networks, encouraging that advertisement to effect on customers, the service provides agree and comply with mobile devices, the incomes that customers received influence on mobile banking usability and those services by mobile banking are more secure that service provide by branches.

Worku et al. (2016) in another research about the impacts of electronic banking on customer satisfaction and the case study from Ethiopia, Gondar, also they use questionnaire form and they distributed 420 and they receive 402 questionnaire from responders in 12 commercial banks and 20 branches, however, according to those data collected from customers all results are significant and based on those data there are positive relationship between customer satisfaction and demographic characteristics, and customer satisfaction has a relation with customer knowledge also based on their result there are difference after adopted internet banking to visit branches.

Toor et al. (2016) discussed in their articles about the influence of internet banking on customer satisfaction a case study from various cities in Pakistan. Quantitative data is used also data has been collected through questionnaire form and they distribute 264 form to internet banking users, however, the authors they determined five dimensions of SERVQUAL such as reliability, responsiveness, assurance, empathy and tangibles also according to the

result of the study has been shown that all five dimensions have a significant effect on customer satisfaction on internet banking.

Raza et al. (2015) explained the influencing factors of internet banking on customer satisfaction also they use a questionnaire form to collect a quantitative data form 400 respondents by internet banking users in several banks in Karachi city, Pakistan. they determined six dimensions include assurance, empathy, reliability, responsiveness and tangibility. According to the results, those collected from the responders explain that all dimensions have a positive correlation and significant except the empathy result is insignificant due to the p value less than 0.05.

Musiime and Ramadhan (2011) in their study focused on consumer adoption and satisfaction on internet banking, a case study from Uganda also they determine those factors have influence on consumer adoption on internet banking, however, they use quantitative data for them research by collecting data from questionnaire those distributed to 332 responders and according to the results, there is a strong and positive correlation between internet banking service and consumer adoption and customer satisfaction.

Choudary (2013) in his studies about the impact of internet banking system on customer satisfaction explained those factors have an influence on customer to be satisfied, also the case of the study in Chennai, India and the author uses a quantitative data to collect information from customers, and he was distributed 250 questionnaire form to responders and determined four dimensions of service quality such as interface, responsiveness, fulfillment and security. also based on one of the question that face to customers about the most satisfied internet banking channel and they answered as follow 55% of them agreed with that mobile banking is most satisfied channel and 28% chose branches, 13% selected ATM is satisfied for them, also 2% for online channel and call center is 2%. However, according to the results as shown that there is a significant and positive correlation between variables and all dimensions has a significant effect on customer satisfaction, however, the customer satisfaction and internet banking have a significant effect on customer loyalty. Lal (2015) explains the main duties of banks are accepting deposits from clients and making loans to clients, With the passage of time the traditional services in banks changed to modern service and in the traditional service, the

bank provide various type of service such as, give separate kind of deposit account, gives a loan to customers, gives an advances, monthly income, pension program, project, exchange currency, transferring money between account and to outside of country, buy or sell securities(stock and bonds),transfer of mail. Under the modern service kept a lot of traditional service and the bank provides such as debit and credit card, internet banking (ATM, online banking, and POS machine), full-time service in a safe mode.

However, Internet banking includes:

2.2.1 Automated Teller Machine (ATM)

Sathye and Sathye (2017) explained the ATM manufactory has seen a large growth in the previous years exactly in the developing countries, the Asia-Pacific area has shown the strongest development of 13% and India recorded 44% in developing. However, the early studies were use accounting information system to measure the influence of ATM on banks' efficiency such as (operating expenses to total revenue) or another ratio is (operating expenses to total assets). Furthermore, the ATMs improve banks efficiency and effectiveness and directly has the role to decrease the cost for both of bank and customers also it will increase profitability for the banks and any bank has more ATM it is better for customers because of the customers can reach their works with less time and less cost. Choudary (2013) in his article talk about the internet banking can make a better relationship with customers not just improve competitive advantages in market. ATM is becoming a delivery channel for all banking sectors with customers, And the banks set up the ATMs as they can with local and other several languages instead of creating a branch in the city, however, the high security for all of them is the bank's priority work because they have a higher risk for customers. According to Kagan et al. (2005) internet banking is develop the quality of bank's asset and they have a positive effect on ROA performance, Tunay et al. (2015) decrease the operational cost on banks overhead expenses. Electronic infrastructure is one of the importance things that use by banks. With more develop of infrastructure led to fall cost for each transaction and increases profitability. According to Lin

et al. (2015) most people in Vietnam have been never used internet banking service before by local banks, and international banks make a focus to start using this system. And internet banking quickly developed since the State Bank of Vietnam started to use electronic payment between banks. however, to payment via ATMs, and banks give instruction by Vietnam's government to develop other payment via other channels such as mobile and internet banking, in order to achieve a reduce customers' transactions via cash transactions. According to International Monetary fund as shown in figure 2.1 in the last report about the number of ATMs machine in Iraq, the numbers of ATMs increase it from 115 in 2008 to 611 in 2017 and it means that there are significant developments in banking sectors and the ATM increased by 431.3%, however, the banks want to add and more machine entire the country.

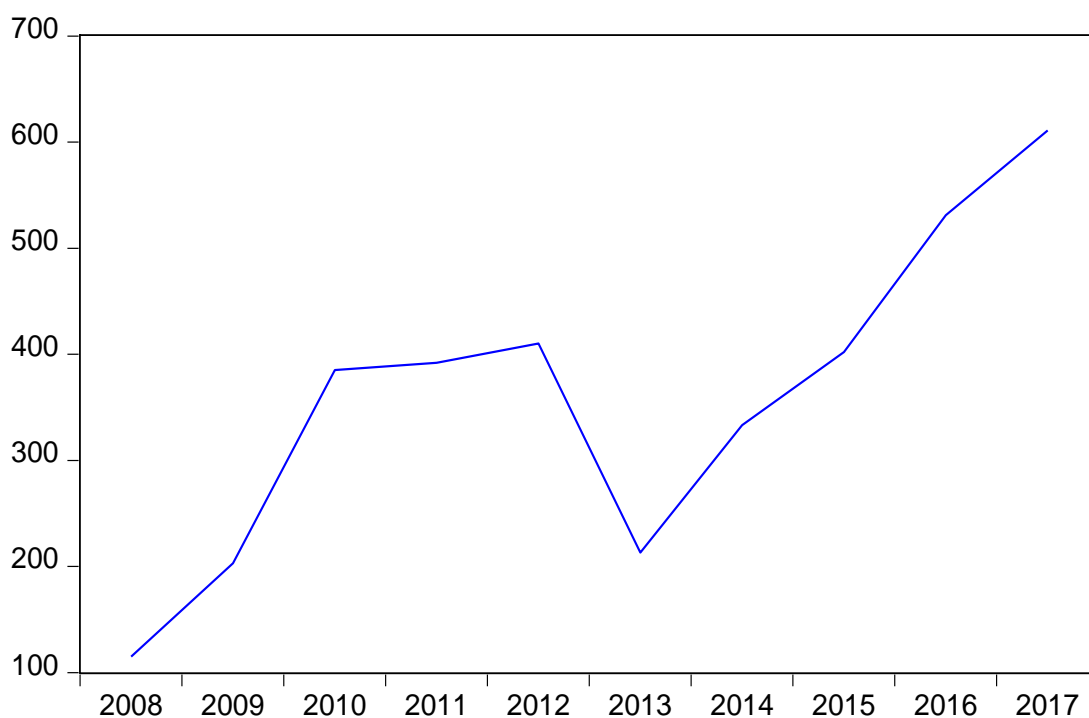


Figure 2.1 Numbers of ATMs in Iraq

Source: International Monetary Fund

Although, according to the world bank, as shown in figure 2.2, there are 0.67 ATM machine in 2008 and increase the to 2.4 ATM machine in 2016 for (100,000) adults in Iraq and it means that the number of ATM machines for 100,000 adults increased by 258.20% from 2008 to 2016. Approving with this data tell us there are a low number of ATM machines, if we compare with

another country like the Turkey we can see there are a significant different between two neighbor countries and there are 78.077 ATM Machine for every 100,000 adults in Turkey.

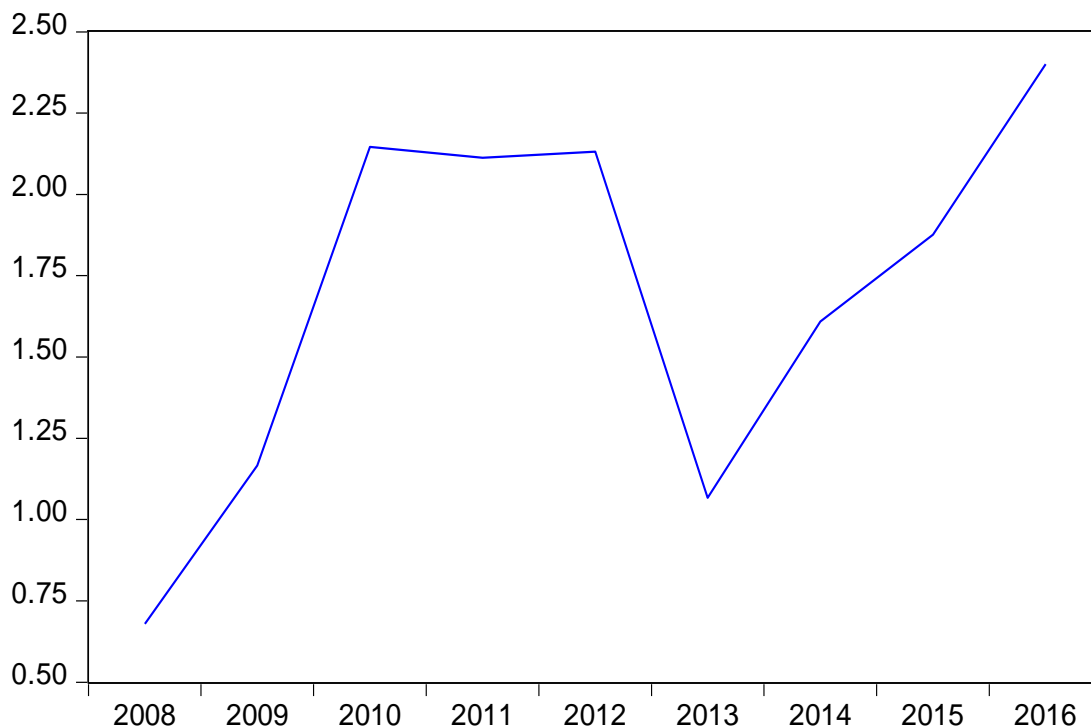


Figure 2.2 Numbers of ATMs per (100,000) adults

Source: The World Bank

Iberahim et al. (2016) stated that security of ATM is one of the dimension that management working for it as they can and spend a high cost to protect a privacy and doing transaction safety and expectation to happened error between employee and customer at the lowest range because the machines were developed and created with the easiest way and gives all transaction with the correct details to customers, printing receipt, transactions routine.

2.2.2 Mobile Banking

Venkatesh et al. (2003) suggest that Unified Theory of Acceptance and Use of Technology (UTAUT) and this theory formed on eight notable theories, and this theory produces a late base model for acceptance. Lin (2011), Zhou et al. (2010), Luo et al. (2010), Zhou (2012), Kim et al. (2009) identify the adoption

of mobile banking not have been by users, and researchers want to identify that factors affecting on users to adopt. Includes:

1. Mixed the Innovation Diffusion Theory (IDT) and Trust Theory to determine the effect of innovation properties include (comparative advantage and ease to practice) and knowledge-based trust in the performance user of mobile banking.
2. Consolidate Task-Technology Fit (TTF) and UTAUT to recognize the determinants influencing the aim usage of mobile banking.
3. Drive UTAUT to find the effect of performance anticipation and recognized risk in a user's behaviour.
4. Drew on IDT to find the effect of related and essential trust in using mobile banking.

Davis (1989) was developed the Technology Acceptance Model (TAM) that was adopted from the Theory of Reasoned Action (TRA), Lin and Shiqian (2018) refers to cost and benefit. And Podder (2005) analyze the objective of TAM is about users' acceptance and behaviour over the quality of end-user count technology.

There are differences between telephone and mobile banking, telephone banking as follow:

1. Telephone banking let the customers in banks to perform the transactions via telephone, instead of a visit to the branch or ATM.
2. Using telephone banking help the customers to reduce the cost to visit a branch
3. Telephone banking times can be longer than branch opening times, and a lot of the banks offer the 24 hours in 7 days' service to customers.

Mobile banking includes:

1. Mobile banking allowed the customers use for balance checks, account transactions, payments, credit, exchange money and other transactions via a mobile device.
2. Mobile banking let the customers use the mobile device (smartphone) to access for bank account or service provide by banks.

According to Baraghni (2007) in the previous research in many years ago they expect internet banking via mobile and wireless technology goes to wired internet connection by the bank. Internet banking service is the latest delivery channel by banks and these services is being a threaten in the bank for traditional service and this be a significant impact on bank's share in the financial market, also living with technological time let the bank to stay in competitive advantage with same banks that work in the same field. Tahereh (2018) consider that only 5 percent of Iranian people use mobile banking service in their daily transactions, also based on formal statement there are a several banks perform mobile service in the governmental banks such as Saderat and Maskan banks and both of banks located headquarter in Tehran capital of Iran and in private banks such as Saman and Sina banks.

Luo et al. (2010) mentioned banking industry one of the important participants to adopting internet and mobile technology, before growing internet banking the banks invest in information technology but continually change this system to the internet by several operations in banks such as ATMs and Mobiles. The evolution of internet has a significant role on diffusion internet banking and one of the points that a lot of studied mentioned about that are this service has a low cost and more by convenience customer. However, technology become one of the elements for competitive in the market because of financial institutions want to adopt technology and internet for their business and daily work, also the customers less ready to visit traditional branch but they have a high demand for more channels are provides by banks to reach their transactions.

Baptista and Oliveira (2015) defined the mobile banking is one of the type of execution of financial service. The customers' device almost related to mobile banking and communication network, and cannot be accessed without the device. And the device makes a connection between banks' application that customer can download it and connect with a network to send and receive data and information via banks. Gomachab and Maseke (2018) in this studies they use the SERVQUAL model to classify the relationship between mobile banking service and customer satisfaction, and author consider that reliability, empathy, and tangibility are positive relationships with customer satisfaction,

however, some of the previous studies use SERVQUAL model but some of them not apply but in this research support all factories to apply the model.

Lin and Shiqian (2018) in 2017 E-commerce has been develop it, and 45% of E-consumers doing their online transactions in Asia via smartphone, according to data from China Financial Certification Authority announced 35.6% of customers use mobile banking and 17.8% of them use mobile banking, and the number of customers using E-banking increase by 50% from a year to year, however, mobile banking include mobile shopping, mobile financial and mobile entertainment.

2.2.3 Web banking

Web banking is another channel that help customers to allow financial or non-financial service that provide from banks to customer base on Hoehle et al. (2012).

Another element of internet banking is web banking that customer can access their banks account through banks website by using customers' user and password, another thing in web banking to get a customer's level of satisfaction is the website's design because it has a positive impact on the customer to be comfortable for working on it explained by Lin et al. (2015).

Also, for the bank's marketing and communications activities, the website is the major factors, and the content also is significant because they have the impact on customers' satisfaction. Web's design and their layout, high-quality graphic and color are the essentials requirement for a good website as mentioned by Ahmad and Al-Zu' bi (2011)

2.3 Customer satisfaction

Turunen (2011) explained the customer satisfaction is the customer's evaluation of the service and product that provide by firms and banks when this service and product match with the customer's expectation. However, the customer perceptions are the point for actual service experience, and

customer's expectation uses to find the performance of which service are compared, customer gap is the difference between customer expectation and perceives, also, this difference led the customer to be dissatisfaction. The firms must obligate to take a focus on what satisfaction by customers because it creates a strong relationship between firms and customers.

According to Ozatac et al. (2016) the service quality is the customer's expectations for the commodity and service as achieved to the customer, also delivering quality service it intends that the same with customer expectations, The satisfaction and loyalty relationship is determined by customers, company or banks, and competitors, and the relationship includes the customer buying habits, perception, expectations, sources of information, positive word of mouth, service quality, satisfaction and loyalty. However, the customer loyalty leads by customer satisfaction and customer's loyalty produces the profitability for banks and all things related to each other.

Caruana (2002) describes the service quality is the consequence by customers for the comparison process about what they consider banks service should be, and the expectation how the bank's performance for that service.

Nimako et al. (2013) the banks get the customers to satisfy by meeting their requirement for their daily business or transactions, also banks provide internet banking as one of the services for customers for getting their loyalty and satisfaction, and the customers use the internet banking maybe they are not fully satisfied because of those services not met their requirement in this situation the banks must take a focus to better the quality if that services and solve that point who customers dissatisfy with it. According to Anderson et al. (1994) the Customer satisfaction is the vision by management as the evaluation of the product and service based on the percentage of purchasing experiences and consumption for that service during a specified period.

According to Uddin and Akhter (2012) discussed the service quality and fair service are responsible and they have a straight influence on customer satisfaction, based on Elmayar (2011) customer satisfaction has a strong relationship with service quality, and in other hand. Santhiyavalli (2011) said service quality is used as one of the instruments for competitors to getting their

competitive advantage by recommending the customers that providing product and service by banks are not just satisfying enough but also they want a better quality of the bank's product. Ticharwa (2017) mentioned when customer spend the cost for a service there will get the interest if the interests more than the cost as well as customers will be a satisfying. Ozatac et al. (2016) explained in their article and evaluate the determinations of customer satisfaction and impact of service quality the case study from Turkish Republic of North Cyprus, also they distribute 207 questionnaire forms to customers those clients in different banks, authors use SERVQUAL model and determined 10 dimensions of service quality.

Nimako et al. (2013) discussed and examine the internet banking with customer satisfaction in the banking sector in Ghana, authors use a questionnaire survey to collect a primary data from customers and they distributed 200 to responders, and the responders' users in two banks such as Merchant Bank and Ghana Commercial Bank, also according to the result as the customers dissatisfy with those two banks due to limited speed to response customers' request, customers have problems with fee and charge by banks and less satisfying with quickness of website during using internet banking.

Shrimali (2015) studied about internet banking on customer satisfaction and the case study in the banking industry in Udaipur, India. based on this articles there are five dimensions of customer satisfaction and they are responsiveness, efficiency, reliability, security and site aesthetics also the authors use a questionnaire form to collect a primary data and distributed to 52 responders, however, according to the results after analyzed shown as there is a positive relationship between internet banking and dimensions of customer satisfaction.

2.3.1 Customer loyalty

Irfan et al. (2016) mentioned customer loyalty can be felt clearly when a customer uses a product and service by a specific firm for a long period. And the banks should take care to find new customers and keep the present. Ticharwa (2017) discussed there are other definitions such as customer loyalty

is the obligation created by the customer to repurchase that goods and services, and customer loyalty is one of the significant factors that affect banks important plan in the long run period, the banks can make a consideration of the customer loyalty by making the focus on buying product and service and series of purchasing by customer, according to Adams (2016) in the competitions background the focus on developing customer loyalty this means getting your customer's relishing.

Mosahab et al. (2010) Customer satisfaction has an intermediary position of service quality on customer loyalty, and this refers to a straight connection between customer loyalty and satisfaction.

Based on Zacharias et al. (2009) customer satisfaction and loyalty are almost related to each other but satisfaction have come former of loyalty because the customer has a strongly satisfy until they will be loyalty. There are some studies such as Anand and Selvaraj (2013) in India they propose a strong correlation between all service's quality and customer satisfaction and customer loyalty.

According to Dubey and Srivastava (2016) determined two concepts of customer loyalty, first behaviour, the behaviour is when the customer reaction to repurchase a product or service in specific bank, in another hand it is the customer's real behaviour, and behaviour not belonged to state of mind but is about person's transactions, because of financial value can measure behavior loyalty. Second, the attitude related to customers' ideas that customers cannot purchase a product and service from different firms, attitudinal loyalty is when customers declare other they have a positive feeling about the brand of that firm. And customer loyalty drives by customer retentions. Lymperopoulos et al. (2006) discussed service quality is one of the basic components for marketing service, and creating a strong long-term relationship between bank and customer is necessary for today, because of a huge competition in market, providing better quality of service led to provide competitive advantage for the business, any firm can be different itself by affording huge quality of service.

2.3.2 Trust

Yu et al. (2015) defined trust as the desire consider on another individual because of belief, expectancy, feeling, perception, that another party acting the role of interest to trust party, another definition for trust in internet banking is desire by customers to doing their transactions via the bank's website because of customer has faith, perception to the bank's website as a trusted party to Trust has an intermediary role between a buyer and seller. In economic opinion, trust is a technique to decrease transaction cost and reduce the customer expectation of risk. Chiou and Shen (2012) mentioned there is an uncertain in the electronic environment because of this reason trust is more relevant in an electronic transaction than that transaction without electronic, in internet banking service must consider to trust because it is an influence in determining risk and uncertainty.

Roy and Shekar (2010) were study the essential dimension of trustworthiness in financial service. And they found out in their study the trustworthiness depends on three dimensions first competence include the ability and experience, second is Openness include shared value and connection, and third is benevolence such as integrity and orientation. Furthermore, Alalwan et al. (2015) said because of human not attendance for every transaction in internet banking, customers have some sensitive for this so thee customers should focus on the trust of that bank when they want to be their customers, and trust is one of the important determinations to customers' projects to adopt internet banking.

Illustrated Iberahim et al. (2016) trust is one of the major factors has influenced adopting internet banking services. For Agarwal et al. (2009) trust is important to understanding behaviour by customers that relevant to internet banking transactions, therefore trust one of the significant examine to successful internet banking and it is just not related to short-term period also relevant with long-term period to realizing with e-commerce, the internet banking was provided by banks to customers has the highest influence to satisfaction with service and customer satisfaction followed with ease of use and comfort. While Bhat et al. (2018) said customer trust has influence on customer loyalty, also

the higher of customer loyalty is the higher customer trust. However, service quality has a positive significant relationship with trust. And trust has a positive significant relationship with customer loyalty.

2.3.3 Risk

Nevertheless, according to Wu et al. (2014) are classified the shortage of understanding to internet banking and risk, however, unreachable to information technology and resource are the major factors on Singapore bank customer to preventing for using internet banking. Based on Anesti (2004) summarized risks in internet banking are competition raise, the risk of technology becoming obsolete, financial electronic portal, Security and Trust issues, use and learn new technologies, and Website updates. However, Subsorn and Limwiriyakul (2015) described there are several factors those affecting and can reduce current and future users of internet banking customers such as risk, confidentiality scared and threat.

According to Pejović (2016) explained the type of risks and they provide in business via internet security have to be one of the major principles that led a banks' operation and in real time those are many institutions, systems, mechanisms and firms that working to protect the data to prevent bank's system against hackers and fraud, and none of them cannot warranties to protect the full systems. Furthermore, the most important categories of risk on internet banking operations that including electronic money are legal, the risk of reputation and operational risk also there are several problems for risk such as a borderline case and for operational risk and reputation risk there are a security breach and unauthorized access to customer information. Operational risk happened because of the deficit in integrity and reliability, also due to lack of security and the banks going to be the point of internal and external hackers and the operational risk increased due to using internet banking badly by customers, however, except the operational risk there are several risks that face to banks business such as reputation risk.

However, risk of reputation is a bad loss occur as a result of bad publicity on banks reputation and has the impact to decrease the bank's earnings and reputation risk may increase because of the systems and products are not same with the expectation, and this type of risk happens because of error, fraud, external and internal hackers, this type of risk just not related with the reputation of the banks also has the effect on all system with safety of connection.

Moreover, legal risk is one of the risks has the impact on banks performance and this risk appeared because of the result of works not assent with the law, regulation and rules, in internet banking service legal risk carries protect of privacy and disclosure of customers' personal information and data.

2.3.4 Security

One of the factors customers will take care seriously is security, due to the security of customers' personal privacy and information is so important for any customers to do business with any banks, according to Agarwal et al. (2009) determined that customers expectation for product and service provided by banks regarding security, precision, doing transaction fastly, using system easily, users' participation and satisfaction are the most significant concept of quality of service that perceived of internet banking. Based on Marakarkandy (2017) Security and privacy with another five factors such as a data on internet banking, recognized enjoyment, quality of service, recognized usefulness, learned the ease of use and all these factors has the impact on TAM model. According to Jo and Mo (2018) regarding all benefits and availability of all service on internet banking also there is some effects that face to internet banking adoption and these challenges include expectation risk in security (privacy) risk and cyber fraud (cybercrime).

Gomachab and Maseke (2018) on their article they determined these factors of mobile banking that affecting on customers' satisfaction also those factors are trust, security, ease of use, cost of the transaction, convenience and

responsiveness. Determine of the level of satisfied comes after the process of decision by customer.

Hoehle et al. (2012) found that customer expectation for buying a product and service of a banks related to many factors and security one of them, security can be the reason behind the customer's decision, because security is one of the major factor influencing customers expectation of using internet banking system, also in a situation the individuals feel the electronic system via bank is secure and safe they will be a convenience and satisfied to use internet banking by the secure banks. Zhou (2012) explained a providing internet banking has been huge convenience and relaxable to customers, also using mobile banking within internet banking service has the impact to be uncertain and doubt due to the network server that will be the target to hack by hacker and many viruses such as Trojan horse and these problems has a negative effect on customer's decision and this determinants increase the customers' concern about the security of transactions and decrease a trust for mobile banking.

2.3.5 Assurance

Based on Turunen (2011) assurance is a relationship between bank's employee and customers that employee can convert the assurance to trust and confidence after providing to public, Assurance related with courtesy by employee to customers and knowledge. The dimensions of assurance include respect of a customer, make the effectiveness connection with customers, the general attitude that provide to serve customers, the effectiveness of service performance. Adams et al. (2016) studied that the service quality has the impact on product and service were perform by banks, also the service's ability to increase the demand but with the same price of product based on those perceptions by customers, however, they examine the nine dimensions of quality service such as assurance, reliability, reputation, competitive, accessibility, competence, clout, awareness and collaboration. Eight of those dimensions of service quality have a significant and strong relationship with perceiving of customer for service quality except the only clout.

According to Raza et al. (2015) the assurance dimensions related with available information and courtesy by employees to customers also protecting customer's information and create a confidence. However, the dimensions of assurance are the reliable answer to customers' requirement and faithful services. Continuously shield the protection of account also maintaining of records error. Javed et al. (2018) considers that used electronic SERVQUAL and used 250 questionnaires were distributed to their study and examine seven dimension of service quality such as reliability, responsiveness, privacy, efficiency, fulfilment, assurance and empathy, also according to their information by responder they accept all seven hypothesis and based on the result there is a difference in internet banking services in local and foreign banks in Pakistan.

According to Parasurman et al. (1988) developed and grew the SERVQUAL model and in their study they were determined five dimensions such as reliability, responsiveness, tangibles, empathy and assurance, the three respectively in beginning were original dimensions and the last two dimensions means empathy and assurance includes seven original dimensions and they are credibility, security, competence, courtesy, understanding customers and access, however the SERVQUAL model have five dimensions.

2.3.6 Reliability

According to Turunen (2011) the reliability for the product and service were provided by banks, the meaning of reliability is of service was provide by banks and delivered at a specific time with full authoritative and perfectly, and another important thing is delivering the service without error and fraud to customers. Iberahim et al. (2016) noted that reliability is how to work with that problem related with bank's service that faced to customers, also delivering the product and service on time without error until get to customer's hand and ATM service has related to reliability and it means delivering service and product to customer with high quality and a good performance and can solve any problem in any time to customer will be fully satisfied. There are two significant factor has the role in internet banking services such as consistency and dependability, consistency is the agreement between potion and it means that the quality of service and product is the same and doing things with the same

standard and with same way to achieving, also dependability is warranty of refer to perform service as expected. Also based on George and Kumar (2014) on their research they found that one of the technical instruments is reliability that correctly and successfully works for website and certainly of service provided. Salihi and Metin (2017) considered that assurance and reliability are the internet banking service elements, the electronic banking service have to be designed for trust to be the reliable and trusted system, also reliability consider one of the service quality dimension and lot of researcher used in their studies. Asad et al. (2016) examined that the reliability one of the significant factor dimension of service quality in internet banking also considering reliability is the basic for service quality,

2.3.7 Customer expectation

Customer expectation means those perceptions by customers to the product and service before delivered, Turunen (2011) studied the variation between customer perception and expectation in results will be a collapse in delivering service and they should recognize the possible differences between perception and expectation in deliver service to customers. Yoo and Donthu (2001) explained in their study that use seven dimension of electronic service quality to measure customer perception in financial electronic business such as trust, speed to delivery, reliability, ease to use, communication, website and functionality. According to Bankole et al. (2017) determined such as expectancy of performance in (UTAUT), interest expectancy in (TAM) and relative advantage in innovation diffusion theory (IDT) all of them have been accepted it is a factors has the impact to use mobile banking service. However, effort expectation acting as a representative several concepts such as perception to ease for use, ease to use and complexity, also there are efforts expectation is the perception to using a technology in banks daily transactions, Salihi and Metin (2017) described the relationship between direction and size of disconfirmation means that the customer satisfaction is the distinction after using and after buying of service and product performance evaluation compared to the expected purchase before, therefore, delivery the product and service on time also to be ability for complete transaction correctly the bank should take carry of answering emails quickly and accessing to the data and

information in customers will expect. However, there are several factors those affecting on internet banking service including the absolute process of the transaction, a validity of links available in portals, quickly loads in internet banking portal, provide for the first time a transaction correctly and if any problems happened there should be a guide to solving them.

Yu et al. (2015) mentioned a trust has the intermediary role when trustworthiness affecting on customers' behaviour through electronic information of product, also in a situation when customers expect the internet banking have been trustworthy for example related with expected behaviour of knowledge and competence. According to Turunen (2011) to service the external customer to by banks' consumer as well as possible it is not sufficient only on selling product and service, to warranty the external customer to receive the service and product as they ordered have to be the entire procedure is fully integrity, However, servicing the internal customers are part of the whole process, when bank is servicing to internal customers in orderly the customers will receive and get those product and service as they meet with their expectation and perception at the end of process, the effectiveness of serve external customer has been related to effectiveness to serve of internal customers. Ozatac et al. (2016) explained the service quality is the evaluation of customers' expectations that has loyalty for firms and how good the level of service is delivered, delivering service quality mean that complying and obligation on a logical basis with customer expectation.

2.4 Conclusions

This chapter introduced the previous literature about the internet banking and customer satisfaction, also examine the relationship between the dependent and independent variables, researchers in previous literature use different dimensions to find the customer satisfaction and researcher choose ATM, Web banking, POS, Mobile banking as an internet banking dimensions and for customer satisfaction dimensions there are customer expectation.

CHAPTER 3

THE CONCEPTUAL MODEL OF THE STUDY

3.1 Introduction

This chapter includes and explains the conceptual model in the study and definition for dependent and independent variable, regarding the model there is a relationship between dependent variable (customer satisfaction) and the independent variable (internet banking), also explain the hypothesis in our study.

3.2 Theoretical frame work

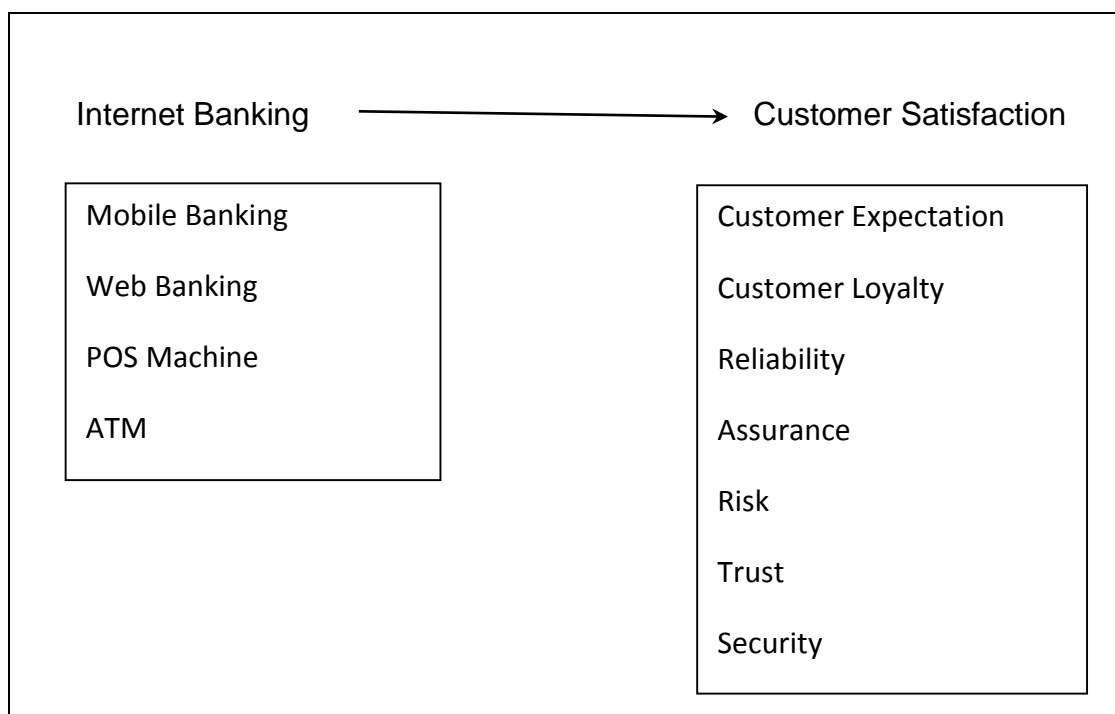


Figure 3.1 Theoretical frame work

source: Prepared by Researcher

The figure above represent the independent variable has the effect on the dependent variable. Also in the bellow there are definitions of the variables:

Internet Banking: According to Boyacioglu et al. (2010) internet banking has been grown more prevail, most of financial institutions are offer internet banking to reduce that cost acquired on banks such as decrease number of employee in the banks, fast and shorten in process, improve of business transactions and provide better service in all views

Customer Satisfaction: According to Ibrahimi et al. (2016) in the marketing business, customer satisfaction explained as a measurement to banks and firms that provide product and service to meet or agree with customers' expectation. And this is one of the important items in business because customers' satisfaction will explain the market's position in the future, there are several points that influence on customers' satisfaction such as the quality of product, quality of service, the location of product was purchase, and the price of the service and product.

3.3 Hypothesis

According to the figure 3.1 researcher make two hypotheses for this study there is relationship between the internet banking as an independent variable its include (mobile banking, web banking, POS machine, ATM) and the dependent variable as a customer satisfaction its dimensions (customer expectation, customer loyalty, reliability, assurance, risk, trust, security), however, the researcher adopted the following hypotheses for the study:

H₀: Internet banking has a negative effect on customer satisfaction

H₁: Internet banking has a positive effect on customer satisfaction

3.4 Conclusions

This chapter explained the conceptual model of the study and the hypothesis was adopting to be assumed in this research, also present the existing relationship between the dependent variable and independent variable and their dimensions of both variables, explain the definitions of variables and their dimensions

CHAPTER 4

METHODOLOGY

4.1 Introduction

In this chapter the author explains those research methods were used in this study, the method also included a quantitative data has been collected from responders, also this chapter focus on research design and sample of case study in population, however, explained the benefit and drawback of primary and secondary data and the way to collecting data and filling the answer of question in the form, also this chapter include the tests to get of results.

4.2 Research design

Sekaran and Bougie (2016) defined the research design it is a planning or schema for collecting data, measurement, examination of data, design to find answer to your research's questions. Considering the research strategy help the researchers to find an object of them researches. Also, there are six research strategies and they are surveys, case studies, experiments, grounded theory, ethnography, and action research.

the research design includes the explanation of the variables and those effects and cause that influence on the variables, the strategic point for research is the case study due to a case study is a place of a survey also the survey method was used to which customer use internet banking service from any banks inside Sulaymaniyah city, Iraq those responds answer of questions via questionnaire form that distributed by researcher, the aim of this study to

determine those factors of internet banking that effect on customer satisfaction, the reason to chosen internet banking service for this study is related to this system is new for Iraq and Sulaymaniyah city and lot of people want to use it because of doing transaction easier, run with modern process in world, buying service and product in online market and cheaper in cost et al. and another reason for using internet banking by customer and banks were adopted but with different type. the data were used for this research collected and fill it by customers of commercial banks in place of study those adopted internet banking system because several commercial banks did not adopt this service also same for governmental banks except Trade Bank of Iraq (TBI) where located headquarter in Bagdad and that has a branch in Sulaymaniyah.

4.3 Source of data

In a case any researcher wants to collect data for their study there are several different strategies to use and to get those data as they want:

1. Experiments and quasi-experiments are important because they typically involve a research design that allows strong causal inferences.
2. Surveys have been use a structured questionnaire due to adopting survey related with a huge number of variables representative sample of respondents.
3. Qualitative research relevant with a large or small amount of data purposive sample, using several type of technique like an interview, participant observation and focus in groups.

4.3.1 Primary data

According to Hox and Boeije (2005) defined a primary data is that data was collected for a specific problem and find the new data and it can use for another research, as they mentioned before in any case that primary data were collected the new data will be added, in a survey researcher can reach several answers of questions such as asking about behaviour, attitudes, feelings, experiences, and about an opinion about problems in a population. However,

the researcher has collected a primary data through questionnaires and personal interviews with customers, employees and managers of banks, and the researcher could reach responders when they have a transaction in branch or employs of those companies that have trade with banks in a random process for interviews. Therefore, one of the strongest points in a survey study is that a researcher can make a redesign question in a form to ask about the subject and objective characteristics of population information.

4.3.2 Secondary data

Ticharwa (2017) explained a secondary data is a data that were collected and summarized before and the data is already available for the user for any purpose as they needed, There advantage of secondary data:

1. This type of data is more economical it means that the secondary data is less experience than primary data.
2. Secondary data reduce and save a lot of times for the researcher.
3. It helps to recognize the problem of the study when the researcher wants to solve it on the better way

And their disadvantage of secondary data:

1. The accuracy is not recognized in secondary data
2. The data probably out-of-date

However, table 4.1 briefly explains the major difference area between Primary data and secondary data:

Table 4.1: The difference between Primary data and Secondary data

No.	Area	Primary Data	Secondary Data
1	Meaning	Related to those data that was collect for first time by the researcher himself.	Related to those data was collected by another researcher before.
2	Process	Present data	Past data
3	Source	Personal interview, questionnaire, surveys, observations, experiments etc.	Journal, website, data stream, articles, government publications, private firms publications etc.
4	Cost to reach	Expensive	(cheap) economic
5	time to collection	Long	Short
6	Available	Crude form	Refined form
7	Accuracy and reliability	More	relatively less
8	Specific	Always specific to the researcher's needs	May or may not be specific to the researcher's need

source: Surbhi, 2016

4.4 Population, Data collection, Sample

Population means sum of those people who will be the target by researcher and they were collected data from them, because of a population the researcher can find out the sample size in this present study, however, the sample size in this study is 200 respondent who were selected randomly and they are include a customers of the banks were adopted internet banking

service inside in Sulaymaniyah with all type of service but different from bank to another one and the name of those banks will be mention in appendix 5 were collected data from their Clint.

4.5 Measurement the variables

In this section there are those items were used to measure both variables in this research, the measurement items for Internet Banking as a dependent variable in the model has been shown un table 4.2 and 4.3 and they are as follows:

Table 4.2: Questions of section two (Internet banking)

No	Questions & measurement items	Related studies
1	I understand what it means by E-banking	Worku et al. (2016)
2	E-banking is easy to use	Nimako et al. (2013)
3	E-banking is safe for business transactions	Chingoka (2015)
4	E-banking is a cheaper way to conduct banking	Wu et al. (2014)
5	E-banking helps customers to complete the transaction quickly	Nimako et al. (2013)
6	E-banking can do everything for me an employee does	Worku et al. (2016)
7	E-banking makes transferring money between accounts easier	Prameela (2013)
8	I get the service of E-banking 24 hours per day and 7 days a week	Worku et al. (2016)
9	I do most of my banking transactions with E-banking	Prameela (2013)

10	I think using mobile banking puts my privacy at risk	Alalwan et al. (2016)
11	I trust the devices used in E-banking	Prameela (2013)
12	I Expect to continue to use E-banking in the future	Yu et al. (2015)
13	Controlling my bank account has improved after using E-banking	Worku et al. (2016)
14	Using E-banking avoids contact with bank employees	
15	Becoming skilful using E-banking is easy	Alalwan et al. (2017)
16	When compared with the cost, do you think the quality of E-banking service that you received is appropriate	Unyathanakorn and Rompho (2014).

Also, for measurement the customer satisfaction as an independent variable in the model:

Table 4.3: Questions of section three (customer satisfaction)

No	Dimensions	Questions & measurement items	Related studies
1	Customer Satisfaction	I am satisfied with the online services provided by my bank	Toor et al. (2016)
2		The bank provides a Sufficient number of ATM machines	Prameela (2013)
3	Customer Expectation	I don't expect the bank's online service to have an error or defect in the service	

4		How well do you expect the bank's online banking service to respond to your personal needs	Unyathanakorn and Rompho (2014).
5	Reliability	I am satisfied with the service charges of my bank account	Toor et al. (2016)
6		I prefer using E-banking instead of visiting branch for making transactions.	
7		If there is a mistake, the bank can make it right quickly and effectively	Shrimali (2015)
8		The bank always provides the services at the promised time.	
9	Assurance	The behaviour of the bank's employees instils confidence in customer.	Toor et al. (2016)
10		Employees of bank have the knowledge to answer customer questions	Prameela (2013)
11	Customer Loyalty	Will you continue using the E-banking service from the same bank	Unyathanakorn & Rompho (2014).
12		Would you recommend other people to use the online banking service offered by the bank	
13	Risk	when I use mobile banking Hackers, might control my bank account	Alalwan et al. (2016)
14	Trust	Even if not monitored, I would trust Mobile banking to do the job right	
15	Security	I feel secure in providing sensitive information (like credit card details) for online transaction	Shrimali (2015)

data from this study were measured by Likert Scale with 5 point, The internet banking variable measure by several authors and items 1, 6, 8, 13, 14 measure by Worku et al. (2016), also items 2, 5 were adopted by Nimako et al. (2013), however, question in item measured by Wu et al. (2014), Chingoka (2015) was used as item number 3 for measurement, items number 7, 9, 11 were adopted by Prameela (2013), Alalwan et al. (2016) used items number 10 to measures, Yu et al. (2014) used item 12 to measurement, Item 15 adopted by Alalwan et al. (2017) and in the last items number 16 was used by Unyathanakorn and Rompho (2014). Therefore, for measured Customer Satisfaction variables researcher adopted several previous research to measurement, customer satisfaction in items 1 and 2 adopted by Toor et al. (2016) and Prameela (2013), customer expectation was measured in items 3 and 4 Unyathanakorn and Rompho (2014), reliability was measured in items 5 until 8, Assurance was measured in items 9 and 10 by Toor et al. (2016) and Prameela (2013), Customer loyalty dimensions were measured in item 11 and 12 by Unyathanakorn and Rompho (2014), Alalwan et al. (2016) was measured items number 13 as a risk and 14 as a trust dimensions and according to Shrimali (2015) was measured item 15 as a security.

4.6 Data Instruments

Kotler (2000) determined in his researcher four instrument should be used to collect data and information in a primary data, also the tools are surveys, experiments, focus on groups and last one is observation, however, this study follow surveys tools to reach of these questions as he need to get answers and do several personal interviews.

4.6.1 Interviews

Interview is another way that can be used to collect data from different individuals with knowledge about the topic, also researcher does several interviews to collect data from customers, employees and managers of the commercial banks.

4.6.2 Questionnaire

In this present study the researcher used a primary data and focused on questionnaire and used it to collected specific data from responders, in this study the questionnaires were distributed to three sections, Therefore, section one include the demographic and within seven question such as talked about gender, Age, Marital status, monthly revenue who received customers, Qualifications, researcher ask about how long been customers use internet banking and in the last question in section one the questions include of customers profession, Also, section two is the internet banking part as an independent variables in the study and include 16 general questions about internet banking service and researcher use 5 point Likert scale in section two and three and the level star from 1 as a strongly disagree to 5 as a strongly agree. However, in section three is the last part in a survey within an introduced as a customer satisfaction so included 15 general question about customer satisfaction and service quality dimension the researcher focus and used seven dimension of SERVQUAL model such as a customer expectation, customer loyalty, Reliability, Assurance, Risk, Trust and Security. However, the terminologies used in the questionnaire are simple in order to be easily understood by responders while trying to answer questions. Furthermore, the questionnaires translated for Kurdish and Arabic languages due majority of population are Kurdish speakers and there are Arab speakers who are living in the city, also majority of the questionnaire were distributed by hand to customers and several of them were send it by email as a word file and google docs to fill it. The questionnaire has several advantage and researcher want to mention them:

1. Responders can fill all questions with full convinces and relax.
2. The answers are fully disclosing because of there are not any name or signature.
3. Author can use questionnaires in a place He/she cannot reached by using a new technique such as google doc ore email
4. Reduce or saving time for researcher because of he/she can distribute to a large number to responders in a short time.

Disadvantage of questionnaire:

1. It is need more time to return the questionnaires to researchers
2. Maybe some questions are not being clear and in this time respondent cannot understand of a questions so they give a wrong answer.
3. All questions not be fill by responders maybe leave some questions blank.

The researcher follows some steps to reduce the above problem such as for leaving those questions in blank researcher explaining the un clear question to respondent and after were filled by respondent the researcher could be check all question to be sure there are not any questions without answer. The whole questionnaire of this present study were used and adopted by several authors in previous studies in a different area and they are Worku et al. (2016), Nimako et al. (2013), Wu et al. (2014), Chingoka (2015), Prameela (2013), Alalwan et al. (2016), Alalwan et al. (2017), Yu et al. (2015), Unyathanakorn and Rompho (2014), Toor et al. (2016), Shrimali (2015).

4.7 Hypothesis and Variables

In this study researcher want to find those factors of internet banking that affecting on customer satisfaction and what is the level of satisfy with those service bank provides for customers, due to the dependent variables in this study is the internet banking that has the effect on the independent variables is customer satisfaction, based on those factors appears for this topic researcher create only two hypothesis for this study to find out what is the relationship between dependent and independent variables, the hypothesis as follow:

H₀: Internet banking has a negative effect on customer satisfaction

H₁: Internet banking has a positive effect on customer satisfaction

4.8 Response rate

Total questionnaire in this study was distributed to (200) customers of those banks who adopted internet banking system due to having a knowledge and information about the service in September 2018, also the total number of questionnaire were returned is (191) and it means that the response rate by customers is 95.5 %, in the table 4.4 shows the response rate analysis in this survey.

Table 4.4: Response rate

	Numbers	Percentage
Questionnaire distributed	200	100 %
Questionnaire returned	191	95.5 %
Questionnaire non-returned	9	4.5%
Total response	191	95.5 %

4.9 Validity and Reliability of measurement

Table 4.5: Reliability test (Cronbach's Alpha)

No.	Variables	Cronbach's Alpha	N of items
1	Internet Banking	0.656	16
2	Customer Satisfaction	0.759	15
Overall		0.808	31

Cronbach's alpha test used to know the level of reliability, according to Zikmund et al. (2010) and George and Mallery (2003) explained that the measurement scale in Cronbach's alpha is more than 0.70 is accepted. And if the result ($\alpha < 0.60$) there is a poor reliability, also has been shown in table 4.5 if the result ($0.60 \leq \alpha, < 0.70$) there is a fair reliability and if the result ($0.70 \leq$

$\alpha, < 0.80$) it means that a test is good reliability and a last discussion if ($\alpha \geq 0.80$) there is an excellent good reliability, in this study shown that a Cronbach's alpha to overall is (0.808) of (191) responders from (31) numbers of items and it means that the reliability test for this study is a 0.808 reliability, and the result for an internet banking as an independent variables is (0.656) from (16) numbers of items. Therefore, the result for a customer satisfaction as a dependent variable is (0.759) from (15) numbers of items. Also determine that if the Cronbach's alpha coefficient less than (0.70) this should be examined by any resource measurement errors such as hypothesis error, sample character, management errors and unpredicted influence in measurement scale.

4.10 Analytical Method

Researcher in this study adopted a statistical method to analyze those data were collected by using the Statistical Package for Social Science (SPSS) version 23 application, also, the reason behind to chosen the analytical method to determine the relationship between the independent variable (internet banking) and dependent variable (customer satisfaction), use a simple regression analysis to determine the type of relationship it means that there is a positive or negative relationship between this two variables, Therefore, the researcher will use the Pearson correlation to indicate the correlation between variables.

4.11 Economic equation

From the bellow equation researcher can explain the whole model by economic equation:

$$Y = \beta_0 + \beta_1 X + \epsilon$$

Y: Customer Satisfaction

X: Internet Banking

4.12 Conclusions

This chapter presented the research method adopted for this study by researcher, explained the research design, source of data which include the primary and secondary data and how to determine also the primary data (questionnaire and interviews) were adopted for this research, population of a case study, those instruments were used to collecting data and explain the sample size, describe the variables and hypothesis of the research, use the reliability test to know the level of reliability of the variables and explained the analytical method and finally explained the economic equation.

CHAPTER 5

DATA ANALYSIS

5.1 Introduction

This chapter includes the analysis of all the data that were collected from respondents to interpreted and used several statistical tests such as descriptive to demographic section and correlation, regression to choose and understand the hypothesis and level of significance of variables.

5.2 Descriptive Statistics

5.2.1 Analysis the personal information

The questionnaires in this study were distributed into three section and they are demographic section, Internet banking section, and Customer satisfaction section. In this part, the researcher wants to analysis the section one to get the valid data from the respondents' personal information. Also section one includes seven questions who faced to respondents to fill it and finally change this information to specific data about our study.

5.2.1.1 Gender

Table 5.1 indicate the result about Gender in the survey, the results show that majority of the population in 191 respondents are Males with a 50.8% (n=97) and 49.2% (n=94) are Females, the results of gender have been shown in Figure 5.1.

Table 5.1: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	97	50.8	50.8	50.8
Female	94	49.2	49.2	100.0
Total	191	100.0	100.0	

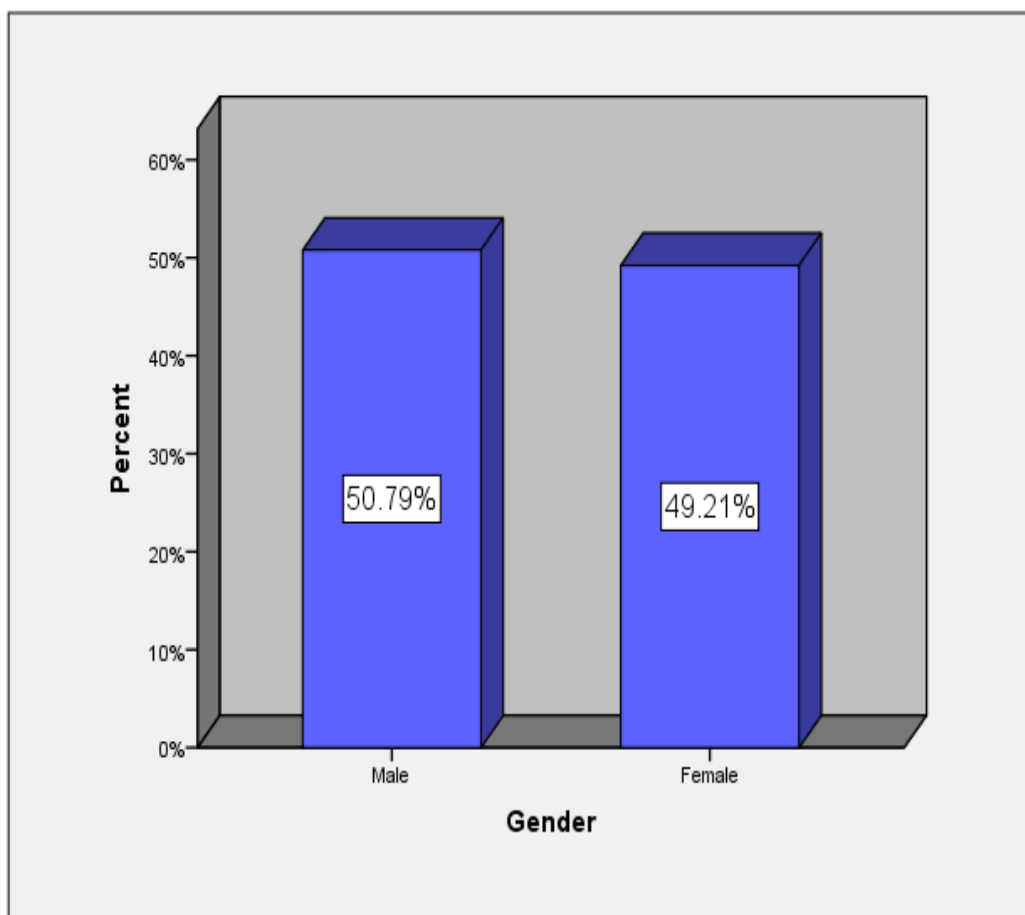


Figure 5.1: Gender

5.2.1.2 Age

The results are gotten from Age in section one as shown in table 5.2 and figure 5.2, also the age of majority of respondents between 24-30 years with 35.6% (n=68), after these 31-36 years is a second highest with 27.7% (n=53), also 12.0% (n=23) related to 37-42 years as a third highest, therefore, 10.5% (n=20) has been filled and they are above 43 years, in the last part and as the lowest number of respondent they are under 18 years with 4.7% (n=9).

Table 5.2: Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Under 18 years	9	4.7	4.7	4.7
18-23 Years	18	9.4	9.4	14.1
24-30 Years	68	35.6	35.6	49.7
Valid 31-36 years	53	27.7	27.7	77.5
37-42 Years	23	12.0	12.0	89.5
Above 43 years	20	10.5	10.5	100.0
Total	191	100.0	100.0	

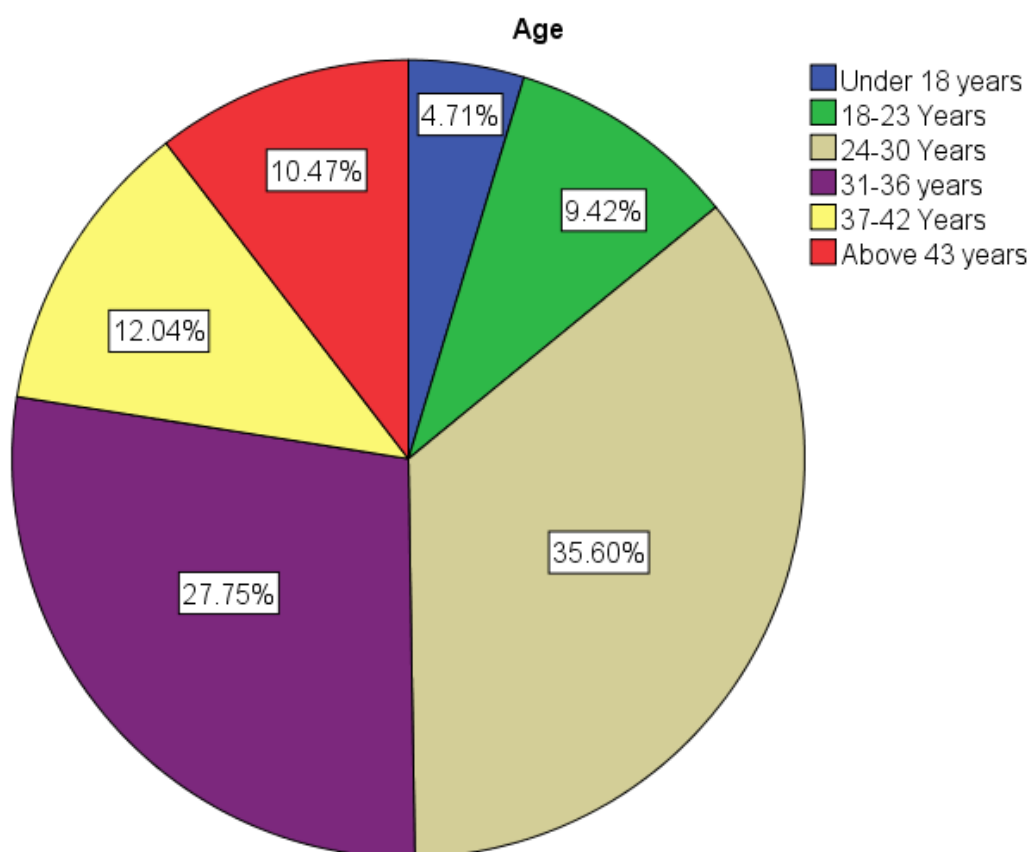


Figure 5.2: Age

5.2.1.3 Marital status

The result has been shown in table 5.3 and figure 5.3 related to the marital status of respondents who participate in our survey. The majority of our respondents are married with 62.3% (n=119) and second highest are single with 34.0% (n=65), however, only 3.7% (n=7) responders have a divorce status.

Table 5.3: Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	65	34.0	34.0	34.0
	Married	119	62.3	62.3	96.3
	Divorce	7	3.7	3.7	100.0
	Total	191	100.0	100.0	

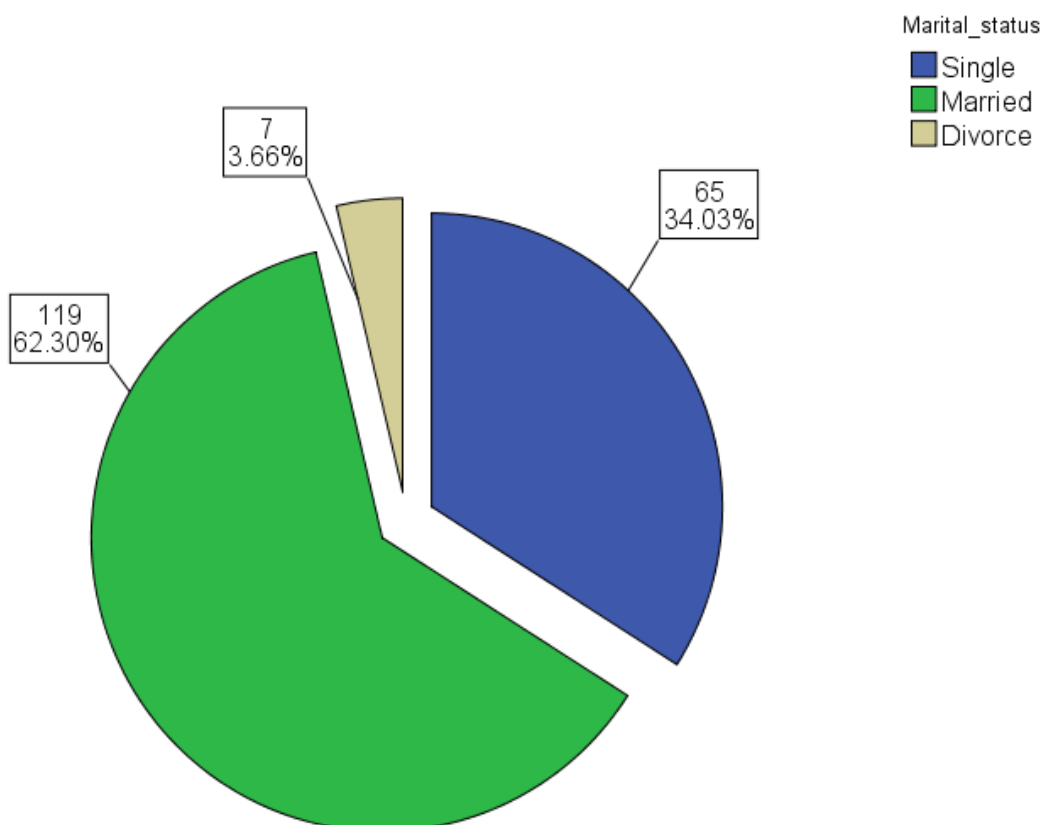


Figure 5.3: Marital status

5.2.1.4 Monthly income

The aim of this question to know those incomes who responders will receive and in Sulaymaniyah most people get their income monthly because of researcher ask in a monthly figure, the result shown that the majority of respondents who receive the highest income are 41.9% (n=80) and their income between \$500-\$1,000, and the second highest income under \$500 who is 27.2% (n=52), followed by 15.7% (n=30) respondents their income between \$1,001 - \$1,500, also the second lowest income between \$1,501-\$2,000 with 9.9% (n=19), in the end and lowest income of respondents are above \$2,001 with the rate 5.2% (n=10). Also, results have been shown in table 5.4 and figure 5.4:

Table 5.4: Monthly income

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Under \$500	52	27.2	27.2	27.2
\$500 - \$1000	80	41.9	41.9	69.1
\$1,001 - \$1,500	30	15.7	15.7	84.8
\$1,501 - \$2,000	19	9.9	9.9	94.8
Above \$2,001	10	5.2	5.2	100.0
Total	191	100.0	100.0	

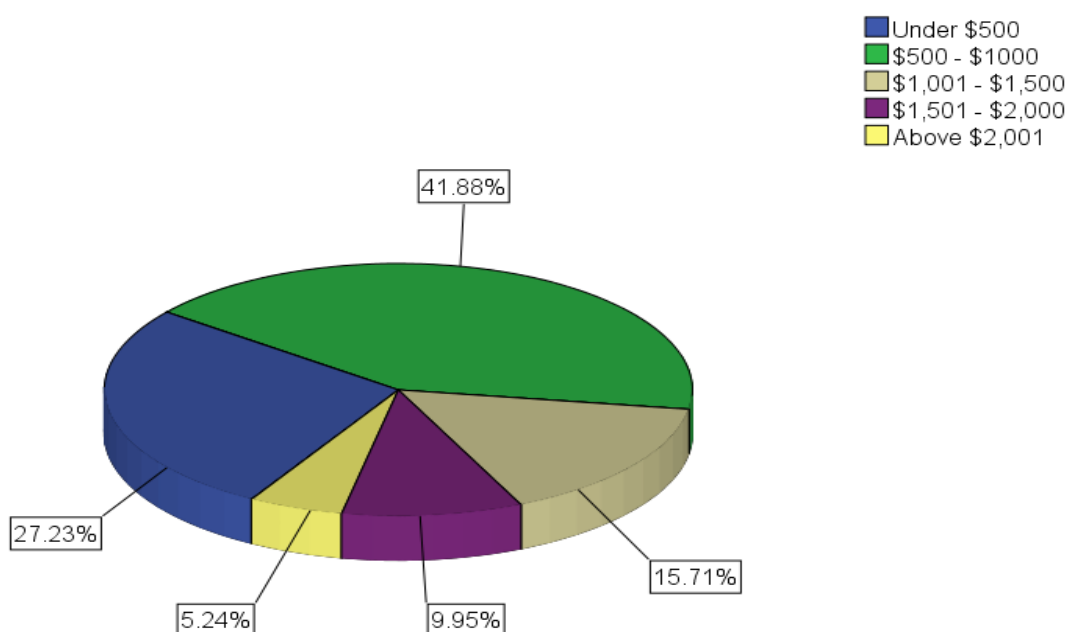


Figure 5.4: Monthly income

5.2.1.5 Qualification

This question related to the responders' qualification in a survey and include 5 level as shown in table 5.5 and figure 5.5, the majority of respondents has a Bachelor's degree with the 66.5% (n=127) and the second qualification of respondents who completed high school with 15.7% (n=30), and the third highest qualification is Master's degree with a rate of 11.5% (n=30), also the second lowest level goes to PhD. degree with 4.7% (n=9) and lowest amount respondent answer for Prof. with only 1.6% (n=3).

Table 5.5: Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	30	15.7	15.7	15.7
	Bachelor's degree	127	66.5	66.5	82.2
	Master's degree	22	11.5	11.5	93.7
	Doctorate's degree	9	4.7	4.7	98.4
	Professor's degree	3	1.6	1.6	100.0
	Total	191	100.0	100.0	

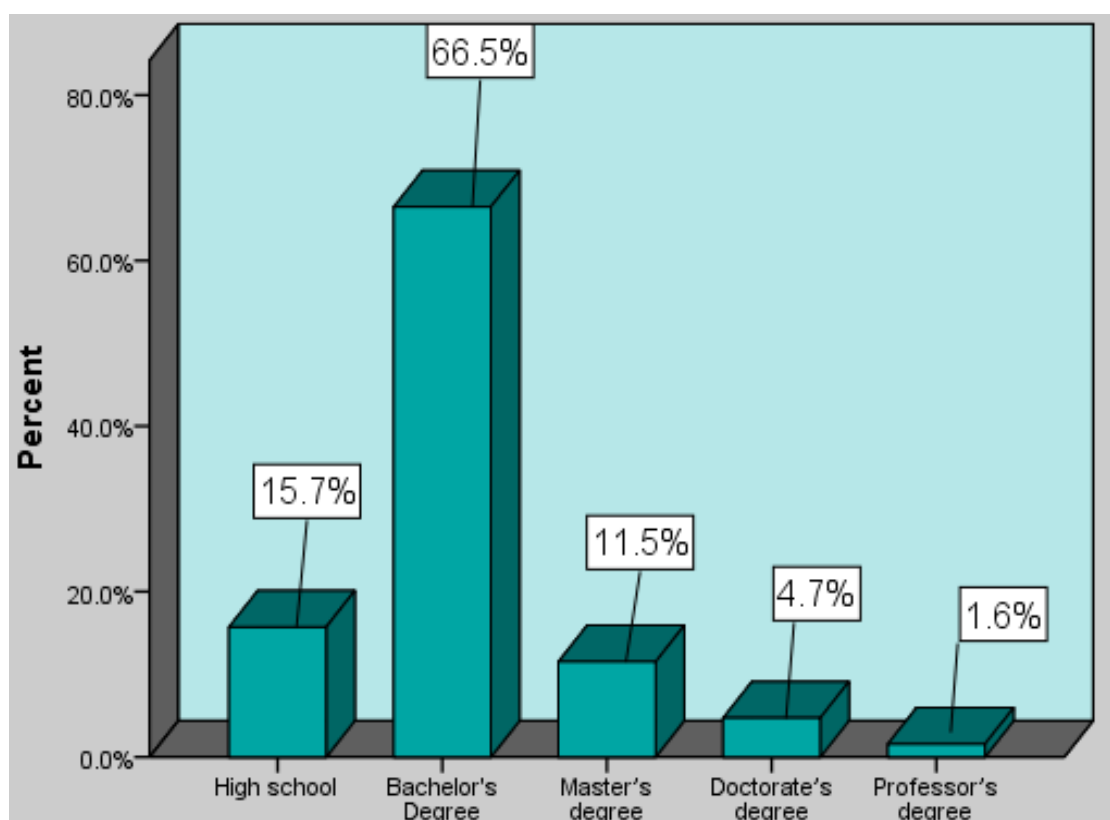


Figure 5.5: Qualification

5.2.1.6 How long have you been using internet banking

The question number six in our questionnaire was asked about the time of using internet banking service who faced to respondents and they answer as followed. Under 1 year is the majority of respondents with the rate of 37.2% (n=71) and the second highest responders are 31.9% (n=61) goes to using internet banking between 1-4 years, and the third highest related to those respondents who using internet banking between 5-9 years with 20.9% (n=40) and followed this goes to those responders who using the service between 10-14 years with the rate of 7.9% (n=15) and the last and lowest level related to those respondents using internet banking more than 15 years and with rate 2.1% (n=4), the result shown in table 5.6 and figure 5.6:

Table 5.6: How long have you been using internet banking

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Under 1 year	71	37.2	37.2	37.2
1- 4 years	61	31.9	31.9	69.1
5-9 years	40	20.9	20.9	90.1
10-14 years	15	7.9	7.9	97.9
Above 15 years	4	2.1	2.1	100.0
Total	191	100.0	100.0	

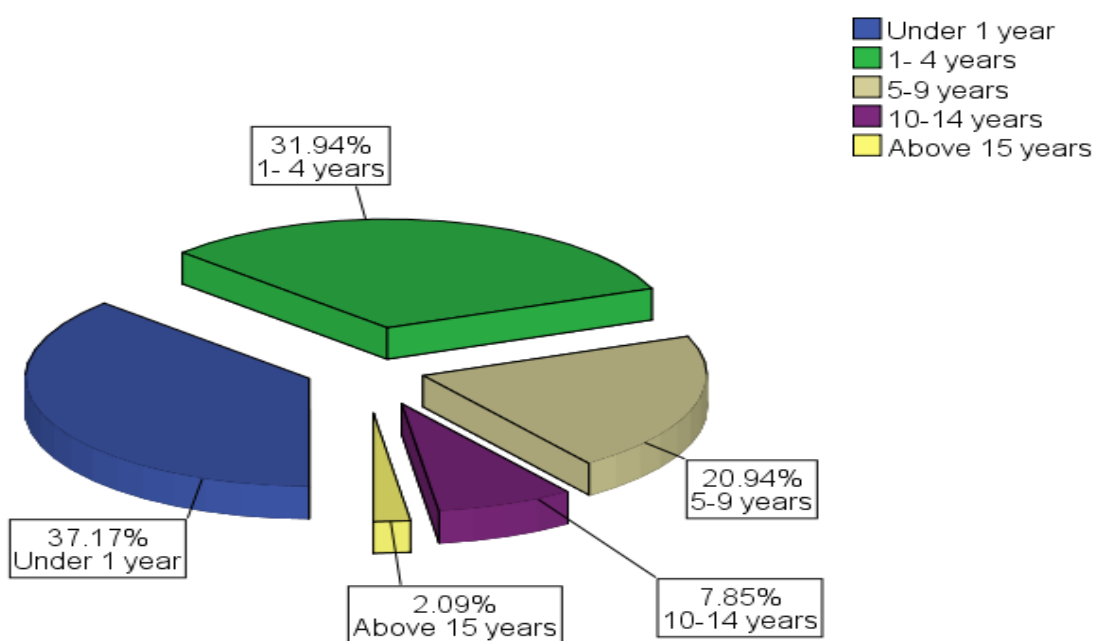


Figure 5.6: How long have you been using internet banking

5.2.1.7 Profession

In the last question in a demographic section related to the profession, the majority of respondents are employed in private sector by 47.1% (n=90) and the second highest are doing business with the rate of 19.4% (n=37) followed this by 10.5% (n=20) employee in government sector, after these 13.6% (n=26) of responders are student and there is self-employed by 5.2% (n=10) and the last lowest level has other profession except of those as mentioned with 4.2% (n=8), the result has been shown in table 5.7 and figure 5.7.

Table 5.7: Profession

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Government Employee	20	10.5	10.5	10.5
Private Employee	90	47.1	47.1	57.6
Business owner	37	19.4	19.4	77.0
Self-Employee	10	5.2	5.2	82.2
Student	26	13.6	13.6	95.8
Others	8	4.2	4.2	100.0
Total	191	100.0	100.0	

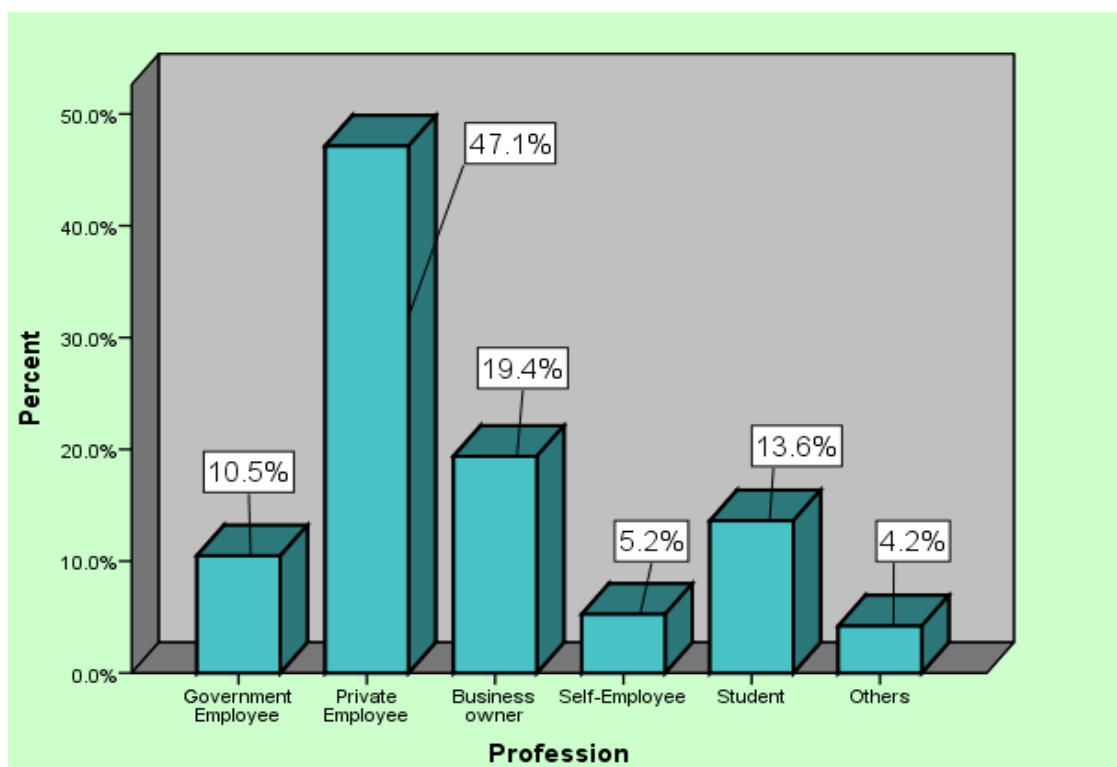


Figure 5.7: Profession

5.3 statistical analysing for variables

5.3.1 Internet Banking

Table 5.8: Internet banking

	N		Mean	Median	Std. Deviation	Minimum	Maximum
	Valid	Missing					
I understand what it means by E-banking	191	0	4.08	4.00	.940	1	5
E-banking is easy to use	191	0	4.03	4.00	.760	1	5
E-banking is safe for business transactions	191	0	3.69	4.00	.903	1	5
E-banking is a cheaper way to conduct banking	191	0	3.99	4.00	.855	1	5
E-banking helps customers to complete transaction quickly	191	0	4.01	4.00	.926	1	5
E-banking can do everything for me an employee does	191	0	3.53	4.00	1.020	1	5
E-banking makes transferring money between accounts easier	191	0	4.05	4.00	.869	1	5
I get the service of E-banking 24 hours per day and 7 days a week	191	0	3.86	4.00	1.111	1	5
I do most of my banking the transactions with E-banking	191	0	3.26	3.00	1.037	1	5
I think using mobile banking puts my privacy at risk	191	0	3.26	3.00	1.331	1	5
I trust the devices used in E-banking	191	0	3.62	4.00	.976	1	5
I expect to continue to use E-banking in the future	191	0	3.80	4.00	.897	1	5
Controlling my bank account has improved after using E-banking	191	0	3.61	4.00	.977	1	5
Using E-banking avoids contact with bank employees	191	0	3.54	4.00	.993	1	5

Becoming skilful using E-banking is easy	191	0	3.74	4.00	1.042	1	5
When compared with the cost, do you think the quality of E-banking service that you received is appropriate	191	0	3.43	4.00	1.140	1	5

The above table 5.8 has shown the mean, median, standard deviation, minimum and maximum of respondents in internet banking section that indicate (16) questions who customers fill it, the highest std. deviation in the independent variables related to those customers who thought mobile banking the service puts their privacy and security information at risk and threat (M=3.26, SD=1.331), respondents were believed service of internet banking provided by banks is appropriate when compared with cost (M=3.43, SD=1.140), followed by customers receive their service of internet banking in 24 hours and 7 days in a week (M=3.86, SD=1.111), the users thought to learn and have been skillful is easy (M=3.74, SD=1.042), also customers doing a lot of transactions by internet banking instead of visiting branch (M=3.26, SD=1.037), respondents believe that in employee of the bank and internet banking doing same things so it means that internet banking is doing everything as employee does (M=3.53, SD=1.020), internet banking let customers avoid their self to contact with banks' employees (M=3.54, SD=.993), controlling or monitoring the account by internet banking is better than adopt by traditional service (M=3.61, SD=.997), customers have a trust with those device used by them-self (M=3.62, SD=.976), customers understand of internet banking (M=4.08, SD=.940), doing transaction is quicker after using internet banking (M=4.01, SD=.926), it is safe to doing transaction (M=3.69, SD=.903), they think will use the service in future (M=3.80, SD=.897), after adopting internet banking transferring money is easier than before (M=4.05, .869), internet banking service is a cheaper way for banking transactions (M=3.99, SD=.855) and using internet banking easy has the lowest Std. Deviation in whole (16) questions (M=4.03, SD=.940). however, the highest mean in all question on independent variables is (M=4.08) related to that questions ask about understand of internet banking

means and the lowest mean is ($M=3.26$) two questions has a same result of mean and they are doing lot of transaction by internet banking and they think mobile banking puts there in risk. For all questions there are minimum answer is strongly disagree (1) and maximum answer is strongly agree (5).

5.3.2 Customer Satisfaction

Table 5.9: Customer Satisfaction

Questions	N		Mean	Median	Std. Deviation	Minimum	Maximum
	Valid	Missing					
I am satisfied with the online services provided by my bank	191	0	3.65	4.00	.933	1	5
The bank provides a Sufficient number of ATM machines	191	0	3.24	3.00	1.202	1	5
I don't expect the bank's online service to have an error or defect in the service	191	0	3.29	3.00	1.054	1	5
How well do you expect the bank's online banking service to respond to your personal needs	191	0	3.46	4.00	1.004	1	5
I am satisfied with the service charges of my bank account	191	0	3.43	4.00	1.073	1	5
I prefer using E-banking instead of visiting branch for making transactions.	191	0	3.94	4.00	1.009	1	5
If there is a mistake, the bank can make it right quickly and effectively	191	0	3.52	4.00	.972	1	5
The bank always provides the services at the promised time.	191	0	3.57	4.00	1.002	1	5

The behaviour of the bank's employees instils confidence in customer.	191	0	3.66	3.00	1.093	1	5
Employees of bank have the knowledge to answer customer questions	191	0	3.78	3.00	1.033	1	5
Will you continue using the E-banking service from the same bank	191	0	3.39	3.00	1.079	1	5
Would you recommend other people to use the online banking service offered by the bank	191	0	3.76	4.00	1.023	1	5
when I use mobile banking Hackers might control my bank account	191	0	3.09	3.00	1.137	1	5
Even if not monitored, I would trust Mobile banking to do the job right	191	0	3.24	3.00	1.130	1	5
I feel secure in providing sensitive information (like credit card details) for online transaction	191	0	3.62	4.00	1.093	1	5

The table 5.9 above shown the Mean, Median, Std. Deviation, Minimum and Maximum related to the dependent variable (Customer Satisfaction) that indicate (15) questions who fill it by 191 respondents and their answer showed this results as follow, the highest Std. Deviation is (M=3.24, SD=1.202) related to banks provide sufficient number of ATM and followed this hacker maybe control customer's account during use of mobile banking (M=3.09, SD=1.137), customers believed without continuous monitoring of their account the system doing all work perfectly (M=3.24, SD=1.130), attitude of banks' employee has an effect on the customer confidence (M=3.66, SD=1.093), also another question has the same result it is customers has been feeling secure and safe

when they give their private information to doing transaction in internet banking (M=3.62, SD=1.093), after that customers continue to use the service in the same bank (M=3.39, SD=1.079), satisfy with fee on bank account (M=3.43, SD=1.073), customers will not expect to face error when they use internet banking (M=3.29, SD=1.054), employee has a require knowledge to answer of what customers want (M=3.78, SD=1.033), customer recommend other people to use the system (M=3.76, SD=1.023), customer believe that using internet banking service is better than visiting the branches (M=3.94, SD=1.009), customer expect the internet banking service respond their personal require (M=3.46, SD=1.004), in every situation the bank perform the service in any time as they want to do (M=3.57, SD=1.002), before the last question there are banks that solve the problems as soon as possible (M=3.52, SD=.972), the last one is customers satisfy with that electronic service provided by bank (M=3.65, SD=.933). However, the highest Mean is (3.94) that is customer agree and prefer using internet banking instead of visiting branches and the lowest Mean is (3.24) by two questions and they provide sufficient ATM and in a situation, without monitoring the service it is doing all transaction correctly. The maximum answers for all questions are strongly agreed (5) and Minimum answers strongly disagreed (1).

5.4 Correlations

Table 5.10: Correlations

Variables		Customer Satisfaction	Internet Banking
Customer Satisfaction	Pearson Correlation	1	.557**
	Sig. (2-tailed)		.000
	N	191	191
Internet Banking	Pearson Correlation	.557**	1
	Sig. (2-tailed)	.000	
	N	191	191

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

Pearson correlation is a statistical test used to find out the relationship between variables, the table 5.10 above has been shown the relationship between customer satisfaction and internet banking variables, also correlation level to significant is 0.01 (2-tailed) and based on the result shown there is a positive and strong correlation ($r=0.557$) between customer satisfaction and internet banking and significant relationship between the dependent variables (customer satisfaction) and independent variables (internet banking) because of the result of significant is less than (0.01). the Conceptual Model has shown in Figure 4.8 indicate the correlation between the independent variable (internet banking) and the dependent variable (dependent variable) based on the result from correlation test it shows the positive correlation and significant by (0.557)

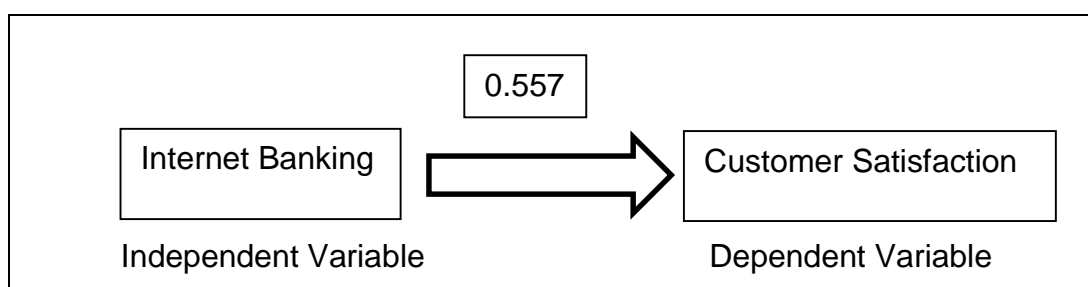


Figure 5.8: Conceptual Model

Source: Prepared by Researcher

5.5 KMO and Bartlett's Test

Kaiser-Meyer-Olkin (KMO) is a statistical test that is used in research for measuring to know the suitability of the available data to factor analysis, the KMO test used to measure a specific variable and for entire variable in the model, according to Kaiser and Cerny (1977) create a special classification for value of the KMO test and based on appendix 2. However, based on table 5.11 the value of KMO test is (.822) and it means that it is a meritorious and good result for our study, and for measuring Bartlett's test we should focus on the significant level and the result is (.000) and it is less than 0.05 it means it is a significant result, also the value of KMO is related to all others correlation in all component.

Table 5.11: KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.822
Bartlett's Test of Sphericity	Approx. Chi-Square	1747.969
Df		465
Sig.		.000

5.6 Regression analysis

Another statistical test is regression and the researcher use simple linear regression for this study, regression use to determine the level of relationship between the independent variable (internet banking) and the dependent variables (customer satisfaction) and another use of this test indicates to accepting or rejecting all hypothesis in the study.

Table 5.12: Model Summary

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.557 ^a	.311	.307	.47585

^a. Predictors : (Constant), Internet Banking

Table 5.13: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.285	1	19.285	85.167	0.000 ^b
	Residual	42.796	189	.226		
	Total	62.081	190			
a. Dependent Variables: Customer Satisfaction						
b. Predictors: (Constant) : Internet Banking						

Table 5.14: Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.355	.237	.557	5.720	.000
	Internet Banking	.579	.063		9.229	.000
A. Dependent Variable: Customer Satisfaction						

According to table 5.12 the R square value is (.331) and it means that almost 31% of customer satisfaction (dependent) determined by the internet banking (independent), the result has been shown of adjusted R square is (.307) so it means that after process of adjusting all variables almost of 30% of the customer satisfaction (dependent) variable as the influence by the internet banking (independent) variable and the value of adjust R square should be approaching the value of R as shown in the result, the F value is (85.167), based on the table 5.14 of coefficients the unstandardized of constant (β_0) is 1.355 and (β_1) is .579 and it means that if the customer satisfaction increase by 1 unit the internet banking will increase by (.579) it shows there is a positive and direct relation and according to the significant level as shown in the model is (0.000) it means that the model is significant due to the result is less than (0.05) and based on this the hypothesis null must be rejected and accept the alternative hypothesis (H1 is supported) and it means that the internet banking has a positive impact on customer satisfaction.

Therefore, among the simple regression test researcher write the economic equation based on the result form the coefficients table 5.11, the equation is as follow:

$$CS = 1.335 + 0.579 IB$$

5.7 Normality Test

Normality test is another statistical test was used to know how the variables are normality distribute or non-normality distribute, also indicate by two test

and they are Kolmogorov-Smirnov (KM test) and Shapiro-Wilk (SW test), However, to determine that the variable is normally distribute or not in both tests we have to compare with P-value (sig.), the hypothesis for normality test as follow:

H_0 : the data are normally distributed

H_1 : the data are not normally distributed

According to our results for rejecting or accepting the hypothesis, if the P-value is less than 0.05 it means the null hypothesis is reject and hypothesis one is accept and it means that the data are not normally distributed, if the result greater than 0.05 we accept the null hypothesis and the data are normally distributed. Based on table 5.15 the KM test for dependent variable (customer satisfaction) is 0.065 and P-value >0.05 and it means the H_0 is accepted and the data are normally distributed, also KM test for independent variable (internet banking) P-value is 0.009 and it means that our result is significant and the data are not normally distributed.

Therefore, in Shapiro-Wilk test the P-value for customer satisfaction data is 0.345 and it means that the result is greater than 0.05 so the H_0 is accepted and the data is normally distributed, also the P-value in internet banking variable is 0.000 and it means that the result less than 0.05 and the data are not normally distributed.

Table 5.15: Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Customer Satisfaction	.063	191	.065	.992	191	.345
Internet Banking	.076	191	.009	.939	191	.000

a. Lilliefors Significance Correction

However, Another way to tests of normality is Z-value, and the result should between -1.96 and +1.96 for finding Z-value beacuse of researcher use 5% as a significant level and we should calculate by hand the measure of Skewness .021 divided by Standard Error .176 and it is equal .11 and same thing for

Kurtosis measure .370 divided by Standard error .350 and it is equal 1.057, and according to both results of z-value from dependent variable (customer satisfaction) they are between $-/+1.96$ and it means that the data are normally distributed. for independent variable (internet banking) we have to Skewness measure .833 divided by standard error .176 and it is equal to 4.732, Also for Kurtosis measure 5.802 divided by .350 and the result equal 16.577, regarding to z-value from Skewness and Kurtosis the data are not normally distributed, the table has been shown in Appendix 3.

5.8 Result of hypothesis

According to the results were got from the regression analysis in coefficient table 5.14 and based on that result it tell us the P-value or Significant result is 0.000 and it means that the P-value is less than the 0.05 level of significant and should be reject the H_0 it says the internet banking has a negative impact on internet banking and it means there are not impact of internet banking on customer satisfaction according to those data were got from the respondent, Also, researcher should accept the H_1 it is that the internet banking has a positive impact on customer satisfaction.

5.9 Conclusions

This chapter reviews the empirical findings from this study, explain the demographic section with three-figure theory, tables and figures those include all information about the customers' descriptive, based on Kaiser-Meyer-Olkin (KMO) the results are statistically significant and it is meritorious, however, according to the correlation analysis indicate that there a significant positive correlation between the dependent variables customer satisfaction (customer expectation, customer loyalty, Security, Reliability, Assurance, risk, trust) and the independent variables internet banking (ATM, web banking, mobile banking, POS), A regression analysis indicate that internet banking has a positive and significant effect on customer satisfaction, dependent variable's data is normally distributed and the independent variable's data is not normally distributed.

CHAPTER 6

CONCLUSIONS AND DISCUSSIONS

6.1 Introduction

The previous chapters indicated the introduction, literature review that explain about the previous study who has related with our topic, also in the methodology chapter researcher explains the design, type of data and with data who researcher use in the study, in the chapter of data analysis explain the tests and this chapter include the conclusion that getting from our study and create several recommendations for future research.

6.2 Discussions

From this research we discussed that internet banking provides a better banking experience for customers, the fact that customers can check their balance, perform transactions without visiting any bank provides an easy and comfortable experience for them, with internet banking customers can be assured about their online security if the bank has taken the proper precaution and security measurement required when making transactions online.

This present study indicates the impact of internet banking on customer satisfaction also in this study researcher selected 9 banks in Sulaymaniyah, Iraq. The dependent variable is customer satisfaction was measured by 15 different questions were selected by seven dimensions of service quality and the independent variable internet banking were measured by 15 questions. The researcher findings that from Pearson correlation and explore there are a

positive and strong correlation between dependent and independent variable and statistically significant, however, finding from the regression estimation the internet banking has a positive impact on customer satisfaction as researcher assume from the questions at the beginning of the thesis and it means that if the customer satisfaction increase by 1 unit the internet banking will increase by 0.579 and according to P-value (significant level) the model statistically significant due to the result is less than 0.05 ,

In this thesis researcher find that the majority in gender is male with 50.8%, the majority in the survey to age is related to those people who has between 24 to 30 years old by 35.6%, Also the married has a majority by 62.3% for marital status, in the income who received monthly the majority of responders has gotten \$500-\$1,000 by 41.9%, However, the bachelors has in first ranking with 66.5%, and the majority of respondents use internet banking between 1-4 years by 31.9% and in the last questions in demographic section related to professions and the majority of respondents working on private sector with 47.1%. and the results show that the majority of the questions are highly reliable because of the Alpha's Cronbach is 0.808. According to the results from responders there is a problem of internet banking service by banks due to just commercial banks adopt the system and Trade Bank of Iraq adopt the service and use only ATM and that banks has a branch in Sulaymaniyah but related with Iraqi governments and all other governmental banks did not use internet banking because of there are a several people is using it and the newest of the system related to un-adopt by governmental banks and they are using a traditional service, and this problem can distribute to all country, based on those people who researcher gives them a questionnaire to fill it they don't have a full awareness and information about internet banking, Based on the results only 73% on responders satisfy with bank's internet service, only 64.8% of people satisfy with the number of ATMs that provide by banks, and responders agree to use internet banking service instead of visiting branch it means that they need a service for 24/7 not just several time available in a day, in another question faced to responders they scared of hackers to control their accounts and still it.

6.3 Policy Implications and Recommendation

Form the results and implications has been shown in the previous chapter the researcher makes several recommendations and they are as follow:

6.3.1 Recommendation for government

The government should make a plan to adopt internet banking service and provide it by governmental banks due to they can use for paying salary by smart cards and directly transfer their amount to employee's account and all other payment who pay to the government employee and all other pension people. Help and decrease tax and fees for the foreign banks to come into the country because they have a good experience and lots of years in working on that fields exactly to using and provide internet banking service also researcher use several foreign banks' customers for filling questionnaires.

6.3.2 Recommendation for banks management

The banks should develop the internet banking service to get a lot of customers for banks and develop the system as much they can and improve the system to fastest than before and banks try to available all internet banking product and service such as mobile banking, web banking, POS and ATM because few banks provide all service together. Another things bank consider it is the cost they should decrease the commissions and fees charge on customers' accounts and if the banks decrease cost it will help that huge numbers of customers try to create an account and puts them funds in that banks. Banks should increase the number of ATM especially in public place and that place has a lot of people to reach as soon as possible.

Management of the banks should consider and work to increase the efficiency of their employee and use new program and system to develop banks daily work, also send employees to training inside or outside in country to develop their skills and experience and follow newest features of modern technology.

6.3.3 recommendation for future researchers

This research gives an opportunity to future researchers who want to work in this area because there is significant information on literature which another researcher can use it as source, suggestion to use all dimensions of service quality and they can follow all internet banking items as variables to get the correlation between them, in a case they adopt a primary data they can use a large sample size of population. Also made a compare between service of commercial banks and public banks.

6.4 Research questions

1. Does Internet banking have an effect on customer satisfaction?
2. What is the level of customers understanding of E-banking?
3. What is the benefit of E-banking?
4. Does E-banking have the impact on improving the efficiency of the banking service?

6.5 Research Answers

1. Internet banking has a positive effect on customer satisfaction.
2. based on the answers of responders about understanding them to internet banking service has shown in table 5.8 with (Mean=4.08) and it means that the majority of responders means of all system of internet banking as an 81.6%.
3.
 - A. Reduce time to customers for doing transactions.
 - B. Reduce cost to customers.
 - C. Make transactions easier than before adopting the system.
 - D. Connect to the online markets for buying or selling service and product.
 - E. internet banking has an effect on customers in the decrease of visiting branches instead of the customers can do transactions via the services.

4. Internet banking has the impact on improving the efficiency of all services those provided by banks.

6.6 Conclusions

This chapter includes the summarize of the results has been gotten from this study, also include both empirical and theoretical findings, however, indicate the Discussion for our study and recommendation for the government, banks' management and for those research will be doing in future times

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LIST OF APPENDICES

APENDIX 1: Research Questionnaire

Dear Respondent

This survey is partial fulfilment for the requirement of a master degree in Banking and Accounting department at Near East University (Turkish Republic of North Cyprus), this study within the topic of (the impact of internet banking on customer satisfaction), please feel free to respond and your answers will be completely confidential, your information is only used for academic purposes only.

Section One: Demographic

1. Gender? ☐ Male ☐ Female
2. Age? ☐ Under 18 years ☐ 18-23 years ☐ 24-30 years
☐ 31-36 years ☐ 37-42 years ☐ Above 43 years
3. Marital status? ☐ Single ☐ Married ☐ Divorce
☐ Widowed
4. Monthly income? ☐ Under \$500 ☐ \$500 - \$1000
☐ \$1,001 - \$1,500 ☐ \$1,501 - \$2,000 ☐ above \$2,001
5. Qualification? ☐ High school ☐ Bachelor's degree
☐ Master's degree ☐ Doctorate's degree ☐ Professor's degree
6. How long have you been using Internet banking?
☐ Under 1 year ☐ 1- 4 years ☐ 5-9 years ☐ 10-14 years
☐ above 15 years
7. What is your profession?
☐ Government Employee ☐ Private Employee ☐ Business owner
☐ Self-Employee ☐ Student ☐ Others

Section Two: Internet banking

No.	Questions	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I understand what it means by E-banking					
2	E-banking is easy to use					
3	E-banking is safe for business transactions					
4	E-banking is a cheaper way to conduct banking					
5	E-banking helps customers to complete transaction quickly					
6	E-banking can do everything for me an employee does					
7	E-banking makes transferring money between accounts easier					
8	I get the service of E-banking 24 hours per day and 7 days a week					
9	I do most of my banking transactions with E-banking					
10	I think using mobile banking puts my privacy at risk					
11	I trust the devices used in E-banking					
12	I expect to continue to use E-banking in the future					
13	Controlling my bank account has improved after using E-banking					
14	Using E-banking avoids contact with bank employees					
15	Becoming skilful using E-banking is easy					
16	When compared with the cost, do you think the quality of E-banking service that you received is appropriate					

Section Three: Customer satisfaction

No.	Questions	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I am satisfied with the online services provided by my bank					
2	The bank provides a Sufficient number of ATM machines					
3	I don't expect the bank's online service to have an error or defect in the service					
4	How well do you expect the bank's online banking service to respond to your personal needs					
5	I am satisfied with the service charges of my bank account					
6	I prefer using E-banking instead of visiting branch for making transactions.					
7	If there is a mistake, the bank can make it right quickly and effectively					
8	The bank always provides the services at the promised time.					
9	The behaviour of the bank's employees instils confidence in customer.					
10	Employees of bank have the knowledge to answer customer questions					
11	Will you continue using the E-banking service from the same bank					
12	Would you recommend other people to use the online banking service offered by the bank					
13	when I use mobile banking Hackers might control my bank account					
14	Even if not monitored, I would trust Mobile banking to do the job right					
15	I feel secure in providing sensitive information (like credit card details) for online transaction					

Thank you for completing our survey and your answers are highly appreciated

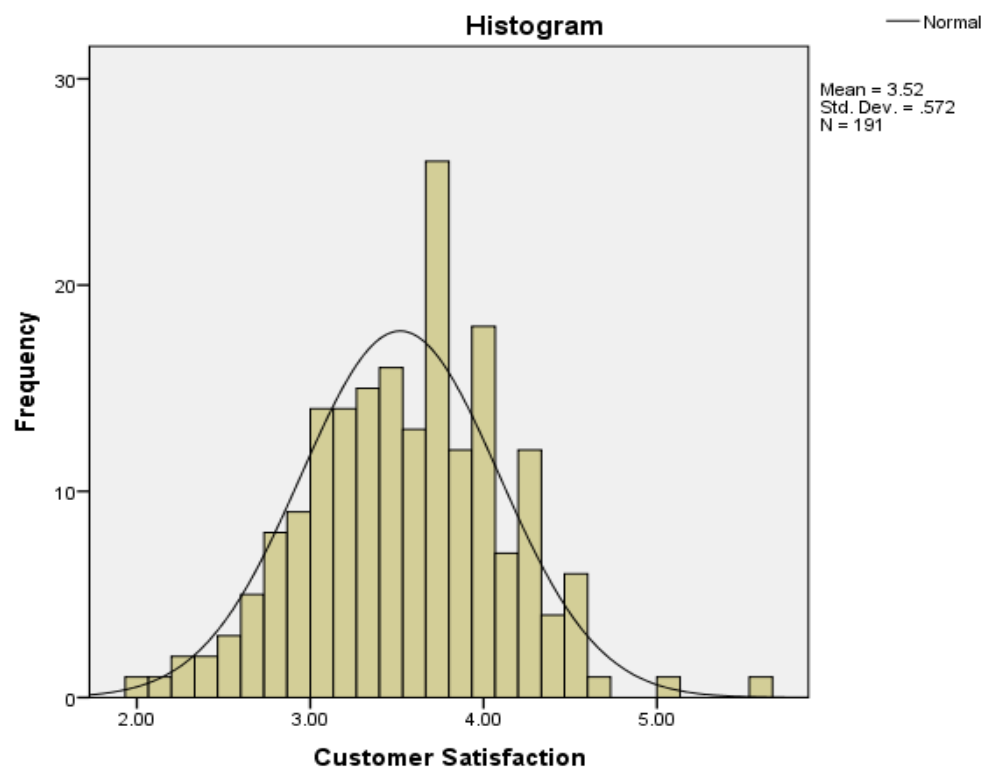
APPENDIX 2 : Classification to interpret KMO test

Classification for interpret KMO test	
0.00 to 0.49	Unacceptable
0.50 to 0.59	Miserable
0.60 to 0.69	Mediocre
0.70 to 0.79	Middling
0.80 to 0.89	Meritorious
0.90 to 1.00	Marvelous

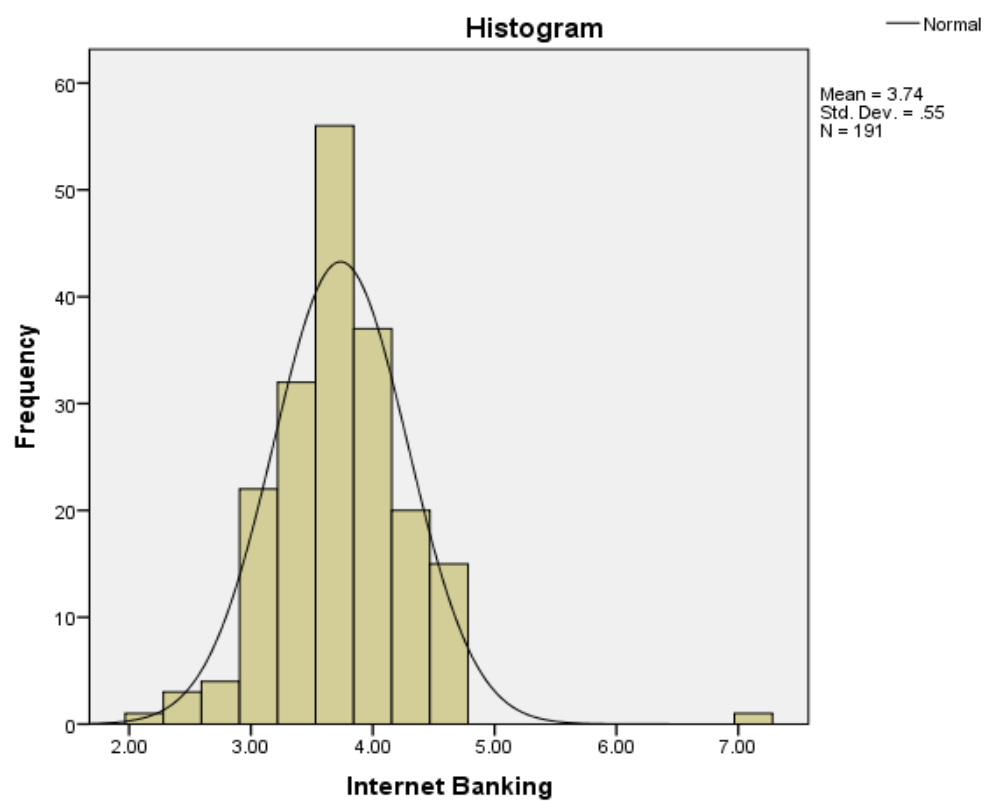
APPENDIX 3: Tests of Normality

			Statistic	Std. Error
Customer Satisfaction	Mean		3.5190	.04136
	95% Confidence Interval for Mean	Lower Bound	3.4374	
		Upper Bound	3.6006	
	5% Trimmed Mean		3.5211	
	Median		3.6000	
	Variance		.327	
	Std. Deviation		.57161	
	Minimum		2.00	
	Maximum		5.60	
	Range		3.60	
	Interquartile Range		.80	
	Skewness		.021	.176
	Kurtosis		.370	.350
Internet Banking	Mean		3.7359	.03980
	95% Confidence Interval for Mean	Lower Bound	3.6574	
		Upper Bound	3.8144	
	5% Trimmed Mean		3.7344	
	Median		3.6875	
	Variance		.303	
	Std. Deviation		.55011	
	Minimum		2.13	
	Maximum		7.00	
	Range		4.88	
	Interquartile Range		.63	
	Skewness		.833	.176
	Kurtosis		5.802	.350

Normality Distribution of Customer Satisfaction :



Normality Distribution of Internet Banking:



APPENDIX 4: Answers of respondent in Likert scale

Internet banking:

Questions		Strongly Disagree		Disagree		Natural		Agree		Strongly Agree		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
1	I understand what it means by E-banking	3	1.6	9	4.7	32	16.8	73	38.2	74	38.7	191	100.0
2	E-banking is easy to use	1	0.5	7	3.7	25	13.1	110	57.6	48	25.1	191	100.0
3	E-banking is safe for business transactions	1	0.5	17	8.9	59	30.9	77	40.3	37	19.4	191	100.0
4	E-banking is a cheaper way to conduct banking	1	0.5	9	4.7	37	19.4	87	45.5	57	29.8	191	100.0
5	E-banking helps customers to complete transaction quickly	2	1.0	12	6.3	33	17.3	80	41.9	64	33.5	191	100.0
6	E-banking can do everything for me an employees does	5	2.6	24	12.6	62	32.5	64	33.5	36	18.8	191	100.0
7	E-banking makes transferring money between accounts easier	1	0.5	10	5.2	31	16.2	85	44.5	64	33.5	191	100.0

8	I get the service of E-banking 24 hours per day and 7 days a week	4	2.1	19	9.9	51	26.7	42	22.0	75	39.3	191	100.0
9	I do most of my banking transactions with E-banking	9	4.7	35	18.3	67	35.1	58	30.4	22	11.5	191	100.0
10	I think using mobile banking puts my privacy at risk	27	14.1	28	14.7	46	24.1	49	25.7	41	21.5	191	100.0
11	I trust the devices used in E-banking	5	2.6	16	8.4	62	32.5	71	37.2	37	19.4	191	100.0
12	I Expect to continue to use E-banking in the future	1	0.5	12	6.3	58	30.4	74	38.7	46	24.1	191	100.0
13	Controlling my bank account has improved after using E-banking	4	2.1	23	12.0	49	25.7	82	42.9	33	17.3	191	100.0
14	Using E-banking avoids contact with bank employees	3	1.6	32	16.8	44	23.0	83	43.5	29	15.2	191	100.0
15	Becoming skilful using E-banking is easy	6	3.1	19	9.9	41	21.5	77	40.3	48	25.1	191	100.0
16	When compared with the cost, do you think the quality of E-banking service that you received is appropriate	13	6.8	24	12.6	58	30.4	59	30.9	37	19.4	191	100.0

Customer Satisfaction:

		Strongly Disagree		Disagree		Natural		Agree		Strongly Agree		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
1	I am satisfied with the online services provided by my bank	4	2.1	23	12.0	46	24.1	81	42.4	37	19.4	191	100.0
2	The bank provides a Sufficient number of ATM machines	20	10.5	34	17.8	44	23.0	67	35.1	26	13.6	191	100.0
3	I don't expect the bank's online service to have an error or defect in the service	9	4.7	35	18.3	63	33.0	60	31.4	24	12.6	191	100.0
4	How well do you expect the bank's online banking service to respond to your personal needs	6	3.1	26	13.6	61	31.9	70	36.6	28	14.7	191	100.0
5	I am satisfied with the service charges of my bank account	10	5.2	30	15.7	44	23.0	81	42.4	26	13.6	191	100.0
6	I prefer using E-banking instead of visiting branch for making transactions.	4	2.1	15	7.9	34	17.8	74	38.7	64	33.5	191	100.0

7	If there is a mistake, the bank can make it right quickly and effectively	4	2.1	22	11.5	67	35.1	66	34.6	32	16.8	191	100.0
8	The bank always provides the services at the promised time.	4	2.1	25	13.1	56	29.3	71	37.2	35	18.3	191	100.0
9	The behavior of the bank's employees instills confidence in customer.	6	3.1	24	12.6	49	25.7	62	32.5	50	26.2	191	100.0
10	Employees of bank have the knowledge to answer customer questions	5	2.6	19	9.9	40	20.9	76	39.8	51	26.7	191	100.0
11	Will you continue using the E-banking service from the same bank	8	4.2	34	17.8	55	28.8	64	33.5	30	15.7	191	100.0
12	Would you recommend other people to use the online banking service offered by the bank	2	1.0	24	12.6	44	23.0	69	36.1	52	27.2	191	100.0
13	when I use mobile banking Hackers might control my bank account	20	10.5	33	17.3	70	36.6	46	24.1	22	11.5	191	100.0
14	Even if not monitored, I would trust Mobile banking to do the job right	14	7.3	36	18.8	58	30.4	57	29.8	26	13.6	191	100.0
15	I feel secure in providing sensitive information (like credit card details) for online transaction	8	4.2	24	12.6	43	22.5	73	38.2	43	22.5	191	100.0

APPENDIX 5: Name of banks were collecting data from their customers

NO.	Name of banks	Nature of business
1	Ashur International Bank for Investment	Local commercial bank
2	International Development Bank for Investment and Finance	Local commercial bank
3	Byblos Bank	Foreign commercial bank
4	Bank of Beirut and the Arabic Countries (BBAC)	Foreign commercial bank
5	Bank Audi	Foreign commercial bank
6	Bank of Baghdad	Local commercial
7	Kurdistan International Islamic Bank for Investment and Development	Local Islamic bank
8	Cihan Bank Islamic Investment and Finance	Local Islamic bank
9	Trade Bank of Iraq (TBI)	Governmental banks

APPENDIX 6 :Name of Banks in Iraq (According to CBI)

Government Banks	
1	Rafidain Bank (Bank of Iraq was Merged with Rafidain Bank)
2	AL-Rasheed Bank
3	Industrial Bank
4	Agricultural Cooperation Bank
5	Real estate bank
6	Trade Bank of Iraq

Government Islamic Banks	
1	AINahrain Islami

Local Islamic Banks	
1	Local Islamic Banks
2	Iraqi Islamic
3	Kurdistan International Islamic Bank for Investment and Development
4	National Islamic
5	Dijlah and Furat Bank for Development & Investment
6	Islamic Regional Cooperation Bank
7	AL-Bilad Islamic Bank
8	Cihan Bank Islamic Investment and Finance p.s.c
9	Abu Dhabi Islamic Bank
10	Al-Baraka Turki Bank

Islamic Private Banks (Conversion Companies Previously)	
1	Islamic World
2	Al-Janoob Islamic
3	Alrawahel Islamic
4	Al-Arabiya Islamic
5	Iraq Noor Islamic
6	Zain Iraq Islamic
7	International Islamic
8	Al-Qabith Islamic Bank for Finance and Investment
9	Al-Anssari Islamic Bank for Investment and Finance
10	Al-Thiqa Islamic
11	Al-Rajah Islamic Investment & Finance Bank
12	Al-Qurtas Islamic Investment & Finance Bank
13	Bank of Asia Turkey (filtering)
14	Asia islamic bank

Local Commercial Banks	
1	Bank of Baghdad
2	Commercial Bank
3	Iraqi Middle-East Bank of Investment
4	Investment Bank of Iraq
5	Basrah International Bank for Investment
6	United Bank for Investment
7	National Bank of Iraq
8	Credit Bank of Iraq
9	Dar-Alssalaam Investment Bank
10	Babylon Bank
11	Economy Bank for Investment & Finance
12	Somer Commercial Bank
13	Gulf Commercial Bank
14	Al-Warka Bank for Investment & Finance
15	Mosul Bank for Development & Investment
16	North Bank for Investment & Finance
17	Union Bank of Iraq
18	Ashur International Bank for Investment
19	Al-Mansour Bank for Investment
20	Iraq Trans Bank
21	Region Trade Bank for Investment and finance (formerly Emerald)
22	Al- Huda Ban
23	Erbil Bank
24	International Development Bank for Investment and Finance

Foreign Banks	
1	Turkish Ziraat Bank
2	Byblos Bank
3	IntercontinentalLebanon
4	Bank of Beirut and the Arabic Countries (BBAC)
5	Vakif Bank
6	Turkiye İş Bankasi A.S
7	Credit Libanais
8	Med Bank
9	Banque Libano Francaise
10	Standard Chartered Bank
11	Bank of the Middle East and Africa (MEAB)
12	Fransbank
13	Banque du Liban et D'Outre Mer (Blom Bank)
14	Bank Audi
15	Bank Melli Iran
16	Parsian Bank
17	Citibank N.A
18	Bemo Lebanon
19	American Bulgarian
20	Karavrin

PLAGIARISM REPORT

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ETHICS COMMITTEE APPROVAL



YAKIN DOĞU ÜNİVERSİTESİ

BİLİMSEL ARAŞTIRMALAR ETİK KURULU

10.10.2018

Dear Bzhar Othman Abdalla

Your application titled **“The impact of internet banking on customer satisfaction: a case study of Sulaymaniyah City, Iraq”** with the application number YDÜ/SB/2018/258 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Note: If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document