Consumer Awareness and Usage of E-Banking in Palestine

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ABSTRACT

The research purpose is about the examination of the factors that influence customers in order to use E-banking in Palestine. The research framework was based on the Theory of Planned Behavior (TPB) with variables such as attitude, subjective norms and perceived behavioral control with the extension of technology acceptance model (TAM), perceived usefulness and perceived ease of use in order to examine the effect on behavioral intention to use E-banking system.

The research applied quantitative research methodology were collected from purposive sampling method of two hundred and fifty (n=250) Palestinian bank's customers throughout a survey that were established for this purpose. For testing the factors that influenced customer’s intention to use E-banking we used the SPSS v20.

Furthermore, both dependent and independent variables of different groups were compared using t-test and ANOVA analysis. The results of this research showed that there are no significant differences between male and female according to the independent variables in using E-banking system. Also by using independent t-test we have found that there is significant difference between single and married people regarding perceived usefulness, perceived ease of use, attitude and perceived behavioral control unlike subjective norms and behavioral intention. Moreover, ANOVA analysis showed that there are no significant differences for educational level. However, ANOVA analysis showed that there is significant difference for annual salaries regarding perceived usefulness.

Finally, results indicate that perceived usefulness is the most significant factor influencing the behavioral intention in using E-banking system in Palestine. Whereas, subjective norms, attitude, perceived behavioral control are not influencing the behavioral intention to use E-banking system in Palestine.

Keywords: Theory of Planned Behavior, Technology Acceptance Model, E-Banking system, ANOVA analysis, Independent T-test, Palestine.

ÖZ

Bu çalışma, Filistin'deki E- bankacılık yönelimini incelemek amaciyla gerceklestirilmistir. Söz konusu çalışmada, Planlı Davranış Teorisi (PDT) ve Teknoloji Kabul Modeli (TKM) çerçevesinde tutum, öznel normlar ve algılanan davranış kontrolü gibi değişkenlerin E-bankacılık sisteminin algılanan kullanım kolaylığı ve faydaları üzerindeki etkisi değerlendirilecektir. Nicel Araştırma Metoduyla 250 Filistinli müşteriyle gerceklestirilen anket sonuçları, SPSS v20 programına aktarılarak müşterilerin E-bankacılık kullanımını etkileyen faktörler belirlenmiştir. Buna ek olarak, T-testi ve ANOVA Analizi kullanılarak farklı gruplara ait bağımlı ve bağımsız değişkenler karşılaştırılmıştır. Elde edilen sonuçlar, bağımsız değişkenlerin Filistinli kadın ve erkeklerin E-bankacılık kullanma eğilimi üzerinde önemli bir etkiye sahip olmadığını ortaya koymuştur. Bagimsiz T-Testi'nden elde edilen sonuclar evli ve bekar bireylerin E-bankacilik egilimindeki ciddi farklari ortaya koyarken, ANOVA analizinden elde edilen sonuçlarla eğitim düzeyindeki farklılıkların Filistin'deki E-bankacılık kullanımı üzerinde herhangi bir etkiye sahip olmadığı saptanmıştır. Fakat ANOVA analizine göre, yıllık gelir düzeyinin E-bankacılığın algılanan kullanım kolaylığı üzerinde ciddi bir etkiye sahip olduğu gözlemlenmiştir.

Çalışma sonucunda Filistindeki müşterilerin E-bankacılık sistemini kullanma eğilimlerini etkileyen en önemli faktör algılanan fayda olarak belirlenirken; tutum, öznel normlar ve algılanan davranış kontrolü gibi faktörlerinse müşterilerin eğilimleri üzerinde herhangi bir etkiye sahip olmadığı ortaya konmustur.

Anahtar Kelimeler: Planlı Davranışlar Teorisi, Teknoloji Kabul Modeli, E-bankacılık sistemi, ANOVA Analizi, T-testi, Filistin.

To My Family

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Chapter 1

INTRODUCTION

1.1 Introduction

The aim of this research is to analyze the intentions of respondents to use E-banking in Palestine according to the Theory of Planned Behavior. Two hundred fifty questionnaires were distributed to take into account the relationship between TAM and TPB. This research consists of five chapters where each chapter discusses specific topics related to the issue. Chapter two is summarized into literature review by presenting a general overview about electronic banking and its forms starting with internet banking, then telephone banking, automated teller machine and mobile banking to end up with smart cards. Also, Electronic Banking was considered with its three types of informational, transactional and communicational. Moreover, the literature review includes benefits and challenges to E-Banking section, Factors influencing customers and banks to use E-banking system section, advantages and disadvantages of E-banking technology, information and communication technology in banking sector, Palestinian's ICT overview, overview of the Palestinian economy, banking sector in Palestine, user acceptance model and finally application of Theory of Planned Behavior. Chapter three covers the research methodology by presenting the research purpose, approach, strategy, and design. Also it includes the methods of data collection, how to select the sample, research model and types of data analyses. Chapter four interprets the test results based on demographics such as age, gender, marital status, occupation, education level, location and annual income using SPSS

software for analyzing the data such as T-Test, one-way ANOVA test and Partial Least Squares (PLS).

1.2 Theoretical background

1.2.1 Technology Acceptance Model (TAM)

The TAM is applied in various circumstances to examine and verify the acceptance of various information system and technology. It consists of two variables; perceived usefulness and perceived ease of use in which are influencing the adoption of any technology such as the E-banking system. Perceived usefulness can be defined as the measurement that assess the individual's subjective toward the value offered by new technology according to a specific task. On the other hand, Perceived ease of use can be defined as an indicator of the effort that individual will make in using a new technology (Gefen, et al., 2003).

1.2.2 The Theory of Planned Behavior (TPB)

However, beside the theory of acceptance model, it was useful to use the theory of planned behavior which focuses more on social system and behavior rather than on the technological features. TPB can be defined as the method to determine the behavior by the intention to perform the behavior, and it consists of three variables; Attitude, Subjective Norms and Perceived Behavioral Control (Rivera Green, 2007). Starting with the first variable in this model is the attitude in which can be defined as the discernment of the person to do such an action in term of favorable or unfavorable. The second variable is the subjective norms in which talked about how the person's behavior can be affected by others such as friends, family members in order to accept or not accept the issue. The third variable is the perceived behavioral control that can be defined as the degree of how ease or difficulty of performing the behavior (Ajzen, 1991).

1.2.3 Electronic Banking System

Bank sector considers being the most important sector that supports the economic situation and development in countries. In addition, a bank role depends mainly in supporting many investments and projects too. Taking into consideration that bank's sector is always connected with the information technology which considered as the key driver for any changes around the world. As well, the modern information and communication infrastructure allows creating competition among bank sectors. Banks use E-banking technology system in order to gain competitive advantage and to achieve services with high quality (Worku, 2010).

E-banking services established in developed countries since 1980's. The first service of E-banking system started with using Automated teller Machine (ATM). After that, in 1990 customers started to use the telephone banking in order to perform financial transactions through telephone lines. Moreover, the internet services started to use by customers in United States (USA) by 1995.

Although E-banking technology system provides many benefits for both banks and customers, and some of customers still have the fear of using the E-banking system in which some of them suffer that using E-banking system is risky and lead them to lose their money (Poon, 2007).

According to the Palestinian Central Bureau of Statistics, the total percentage of Palestinian customers using primary E-banking in Palestine is approximately 23% (Palestinian Central Bureau of Statistics, 2011).

1.3 The aims and objectives of the research

The purpose of this research is to examine the factors affecting respondents' intentions to use E-banking system in Palestine by distinguishing which of these factors affect the acceptance of E-banking and identifying the perceptions and attitudes toward E-banking technology in Palestine. This research concentrates on several independent variables in order to understand how they affect the intentions to use E-banking. The variables are Perceived Usefulness (PU), Perceived Ease of Use (PEU), Attitude (ATT), Subjective Norms (SN), Perceived Behavioral Control (PBC) and Behavioral Intention (INT).

1.4 Sampling Procedures and Data Collection Method and Methodologies

A purposive sampling method was used to increase the probability of having accurate results through targeting bank customers only in different provisions in Palestine such as Ramallah, Bethlehem, Nablus, Jenin, etc. Two hundred fifty samples were distributed in English language; however twenty samples were used as a pilot sample to ensure the effectiveness of the questionnaire's structure and the absence of mistakes. The questionnaire was divided into seven sections as following:

- Questions regarding Perceived Usefulness independent variable to study its effects on the intentions to use E-banking.
- Questions regarding Perceived Ease of Use independent variable to study its effects on the intentions to use E-banking.
- Questions regarding Attitude independent variable to study its effects on the intentions to use E-banking.
- Questions regarding Subjective Norms independent variable to study its

effects on the intentions to use E-banking.

- Questions regarding Perceived Behavioral Control independent variable to study its effects on the intentions to use E-banking.
- Questions regarding Behavioral Intentional independent variable to study its effects on the intentions to use E-banking.
- Demographic questions to study their effects on the intentions to use E-banking.

1.5 Research Hypothesis

The research aims to test the following hypothesis:

H1: Perceived usefulness has influence on attitude to use E-banking systems.

H2: Perceived usefulness has influence on behavioral intention to use E-banking systems.

H3: Perceived ease of use has influence on perceived usefulness to use E-banking systems.

H4: Perceived ease of use has influence on attitude to use E-banking systems.

H5: Attitude has influence on behavioral intention to use E-banking systems.

H6: Subjective norms have influence on behavioral intention to use E-banking systems.

H7: Perceived control has influence on behavioral intention to use E-banking systems.

1.6 Structure of thesis

The thesis is structured into five chapters as the following:

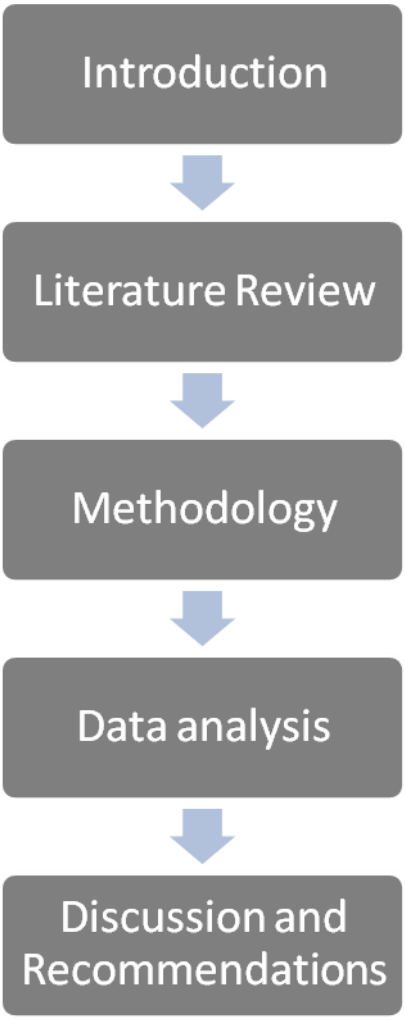

Figure 1.1: Structure of the thesis, source: The Researcher

Chapter 2

LITERATURE REVIEW

2.1 Overview

In this chapter with extendedly interpret the difference and growing aspects of E-banking starting from its definition moving to various explanations of the subjects of my study. At first talking about e-banking different forms attached to a table that states its usage in the Palestinian local banks. Accompanied with its types and benefits of using the e-banking system will be mentioned for both the bank and the customer, moreover the advantages and disadvantages of this evolving technology will be discussed, not to forget the challenges it faces that must be linked to this chapter because facing them is important to make this technology more convenient, safe and used by both the bank and customer.

E-banking system can be considered as a form of self-service technology. According to the everyday development in technology, we can see that the numbers of the internet users have increased significantly. However, most of them are still afraid in using their personal information for the purpose of the internet as they don't believe in the e-commerce security. The development of information technology especially in the world of banking has massive influence on introducing a way to facilitate the payment method and to make it more easily on the customer so they can be friendlier of a banking service (Datta, 2010).

2.2 Electronic Banking

E-banking has a variety of definitions but all of them are referring to the same meaning and same purpose. It can be defined as using the internet as communication and delivery channel for the banking services such as opening account, transfer money between different accounts, the payment of different bills including (electricity, telephone) and for detailed information about the balance of the account. E-banking is an integrated system that is provided by banks to their customers with a flexible, convenient and inexpensive program with integrated services including online banking, mobile banking, phone banking.

According to some researchers, E-banking can be defined as a distinguish example of information technology in the service industry. By comparing with the traditional banking system, e-banking is much better as it is convenient and less time consuming. As we know in the traditional banking, the customer must visit the bank by himself to make different transaction such as deposit money, make a transfer of fund and ordering cheque book. By contrast, using the e-banking especially the internet banking allow the customers to do those activities from any part of the globe, all what they need an internet connection and any devices such as computer or mobile (Sharma, 2016).

Every country should have a strong banking industry that reflects positively on the economic development through an efficient financial service. When we are talking about banking services, we should take into consideration that the E-banking is one of the newest delivery channel for those services. In the latter half of 1990s, there was a significant development in field of internet and the World Wide Web, which

has leaded the banks to use an electronic channel for promoting and delivery their product and services to their customers in an easily way.

This form of using the electronic channel was calling E-banking. As we said before E-banking has a lot of definitions as it refers to several types of services that the bank provides. It has a variety of platforms such as mobile banking, internet banking, phone banking, PC banking (offline banking) that the customer can access these services by using an intelligent electronic devices such as personal computer , mobile phones and the automated teller machine (ATM) (Salehi and Alipour, 2010).

2.3 Electronic Banking Forms

From the previous definitions for the E-banking, there are several types of E-banking through which the customer can take advantage of them and do the financial transactions and other banking services such as:

- Internet Banking: Online banking is the same name of internet banking. It considered the most profitable and wealthiest segments to banks. This type of technology gives the customer the convenience in conducting many banking transaction electronically through using their personal computer. To start with this type of E-banking, customers must have an access to the internet to use the internet banking services. Customer can use the internet banking to perform their financial transaction anytime they want and anywhere (Pikkarainen, et al., 2004).

Through the internet banking, banks are using it as an information presentation medium in marketing their product and services by using their own web page. Most of customers are using this type of E-Banking to check their daily balance statement

of their account, ordering books cheque, and to transfer money. For the individual customer, internet banking or online banking is useful and convenient as it is mostly available 24 hours a day, and seven days a week. Moreover, the corporate customers such as the owner of a company can also benefits from this service by controlling the cash management or any money incoming during the day (Tan, & Teo, 2000).

- Telephone Banking: This service allows customers to disposal their transaction through using their telephone. It divided into two types: operator-attended and automated one.

The first device is the operator attended in which the employee is responsible for any queries provided by the customer and to provide him with any services he wants which are difficult to resolve through the machine. Nowadays, this technology is known as the call center which is available everywhere.

The second one is the automated ones, in which the services are provided by the voice of response system. This type of technology requires customers to listen to the answer machine and follow orders to access and perform their financial transaction (Liao, et al., 1999).

- Automated Teller Machine: This service has a significant benefit for both banks and their customers specially the depositors. ATM is usually found near branches, malls and in gas station or anywhere else. It keeps on working 24 hours a day and it is directly connected with the bank's server by specific network such as VPN.

Through the use of ATM, customer must firstly have a current account in the bank, and a visa electron or credit card with a personal password. By doing so, he will be

able to withdraw and deposit money through this machine. However, by using this kind of technology it will be much easier on the customer to save time instead of going through the bank and waiting the turn. There are several prices which can be charged by three main parties: the cardholders, the cardholder's bank and the owner of the ATM (McAndrews, 2003).

- Mobile Banking: The last generation technology of E-banking, which is located now in Asia and Europe. The idea of the mobile banking came from the development and the stability of mobile communication technologies. Moreover, the using of mobile banking has a great value and influence on the customers through the time saving and the effort they will make while using this type of services.

Through the mobile banking the customer can conduct some banking service such as account inquiry, incoming or outgoing checks, overdraft account and the arrival of text messages about what is a new campaign for the bank. However, the customer can communicate with bank via short message service (SMS) (Mallat,et al., 2004).

Mobile banking worked on originated the mobile application, which is most of the banks now are having the mobile application as a new type of e-banking service. Security in this service is the most important issue to take it into consideration, because through this service the customer can transfer money from one account to another, charge your mobile phone with a balance, transfer money from a current account to saving account, vice versa. But to do all these kind of transaction, the customer should have an account at the bank to create a username and password for his own use only. Furthermore, the mobile banking and application will play an

important role in payment, banking sector and other transaction based and security application (Herzberg, 2003).

- Smart Cards: It is a non cash instrument plastic card issued by a financial institution (Bank) and gives the holder the ability to pay and withdraw through it. As we all know that it contains microchips to save all the data on it.

There are five participants in the credit card network consisting of: consumer, issuer, merchants, acquirers and network operator. It is the most important methods for not carrying the money by hands. It gives the customer a secure, reliable, and convenient means of payment. Cardholder has the right to buy online through the internet, withdraw and deposit money, and the customer can use it to purchase in any store where there is a machine called point of sale (POS). There are many several types of Smart cards such as: visa electron, master card, and cash card (Chakravorti, 2003).

Table 2.1: Electronic banking services provided by local banks in Palestine (According to Bank's websites)

Bank Name	Mobile Banking	Internet Banking	Phone Banking	Credit Card	ATM	SMS Banking	Websites	Number of Bank's Branches
Bank of Palestine	YES	YES	YES	YES	YES	YES	YES	70
National Bank	YES	YES	YES	YES	YES	YES	YES	15
Al-Quds Bank	NO	YES	YES	YES	YES	YES	YES	13
Palestinian Investment Bank	NO	NO	NO	YES	YES	NO	YES	15
Palestinian Islamic Bank	YES	YES	YES	YES	YES	YES	YES	24

2.4 Electronic Banking Types

Diniz (1998) reported that banks use the web to achieve three main objectives: to market information, to deliver banking products and services and finally as a tool to improve customer relationship.

There are three types of e-banking classified by degree of functionality, they are as follow:

First type is informational: As it is mention from the name, most of the banks are using their web site as an informational detail, supporting it with commercial and non commercial information about the bank as a general idea. At the website you can find the history of the bank, management, partners, and the social responsibilities. Moreover, it shows you the product or services they provided. Another more aspect it can includes the achievements that have been completed and the profits that have been made during the years. This will build a strong relationship with the customers. Therefore, most of the banks considered those five informational factors on their webpage:

1. General Company Information
2. Product/Service Information
3. Price Information
4. ATM and Branch Information
5. Financial Information

Second type is transactional: Because of the development of the technology and the increase in the proportion of the internet using, has enabled the financial institution to provide their product and services over the internet. Since the path exists between

customers and the bank's network, it must have the strongest control and security among the transaction.The transactional contents of this type can include in the following categories such as: accessing account, check statement and accounts, paying bills, transferring funds, cell phone recharger and pay cards.

Third type is communicational: This type of e-banking based on an interaction between the bank's system and the customer. Therefore there is a high risk than the informational type. Customer can use this type of e-banking to contact the bank through email or through the numbers that the bank provides. To evaluate the communication tools for the website, it should contain those items such as: contact email, contact telephone, contact address and users feedback tools. However, the customer has the ability to update his file through using the communicational type (Miranda, et al., 2006).

2.5 Benefits and Challenges of E-banking

E-banking has benefits for both customers and banks, along with developing and emerging the banking sectors it’s specialized in meeting customers’ needs in many ways which have helped in its rapid expansion beside its convenience and ease of use (Khrewesh, 2011).

The main benefits according to customers are time saving and easy monetary management using these available tools (Dagar, 2014). However banks concentrate on their competitive advantages along with increasing market shares and profits (Khrewesh, 2011).

Here are some benefits of e- banking to customers:

- Speed and Time saving: customers save time by using e- banking in its different forms instead of wasting time with visiting the bank's branches and wait for their turn (Pathan & Nigudge, 2014).
- They can perform their variable transactions online. Followed with immediate response to their requests (Khrewesh, 2011).
- Convenience and easy access to their account: customers can access to their account at any time, there is no need for the bank's branches to be opened and they can use their privileges from any location whether at home, work or any other place (Chavan, 2013).
- Security: customer won't need to carry cash with them which will reduce the risk of theft or loss of their money (Khrewesh, 2011). Besides using their own protected accounts will reduce the risk of fraud or error which will make them in full control of their money (Pathan & Nigudge, 2014).

As For Banks:

- Time saving: bank employees don't spend their time performing simple and attainable tasks for their customers (Khrewesh, 2011).
- Reduced costs: Fewer employees will be needed when banks rely on their online services to do the needed tasks besides less paper work, ink, locations and power will be used. (Pathan & Nigudge, 2014).
- Good reputation and larger customer base: banks with excellent, distinguished, inclusive, qualified services that perceive the needed and demanded value to their customers will be able to maintain their current satisfied ones and gain more demanded customers for their special, desired

services along with gaining competitive advantages against their local growing competitors (Khrewesh, 2011).

- Lower chances of fraud and error: using online services will reduce the chance of human deception whether from the customers' or employees' side due to visibility and continuous supervision of banking activities (Pathan & Nigudge, 2014).

However, as e-banking relies mainly on the technology devices and technology worlds, risk management should be taken into consideration as the online transaction can be suffering from many and varied risks. Moreover, e-banking faces every day challenges and difficulties based on the evolution of technology.

At this section we will displayed the most important challenges that block the spread e-banking among customers:

- Security and data confidentiality: is the most important challenge which influences the e-banking technology. Security can be define in the form of keeping the customer away and safe from any overrun of their privacy issue. The disappearance of security and safety will shake the confidence and trust of the customers. Since the security is closely related to trust banks should protect their customers and channels from unauthorized access. As the customers put their all trust on the banks system and the services that they provided, and they believe that their private information will not be viewed, banks should create a restrictive procedures to be sure of customer's identity (Datta, 2010).

- Unsuitable banking system: e-banking technology can be easily affected by the instabilities in the political and economic situation. The bad situation in a country can reflect on the customer satisfaction and on the company itself which is can disturb the operation of the business and the flow of goods and services.
- High rate of illiteracy: Most people don’t know how to use the technology devices such as the internet, computer and the mobile. However, this will affect on the acceptance of any new technological idea. Furthermore, banks should provide the customer with clear instruction about how to use the e-banking and the bank's services too.
- High cost of the internet: E-banking requires technological tools that may cost customers a fortune. Most of the customers dislike paying a huge amount of money on highly costing equipments. In addition, customers still have doubts about the fees of the transactions that will do it online.
- Difficulties in speed and reliable delivery: The structure of the e-banking system can make an interruption with a weak system in a form of a low speed and unreliable delivery of the products and services. For instance, if a weak internet connection occurred, customers won't be able to complete financial transactions. Therefore, E-banking system will become malfunctioned.
- Regulation framework: Lack in legal regulation for e-banking in a country can affect customer's needs and perceptions (Worku, 2010).

2.6 Factors influencing customers and banks to use E-banking system

In these times it is difficult for people to accept any innovation idea, where they are still afraid to use anything new especially online services. Customer's satisfaction to any new technology devices can spread out the use of this kind of system such as the idea of the e-banking technology. There are various factors which contributed to the customer's perception.

- Perceived ease of use: Is an important determinant for the customer who is using the e-banking technology, as most of the customers would prefer simplicity system with an easy instruction about how to use it. Another important aspect is that most of customers don't like to spend much effort by doing their transaction (Auta, 2010).
- Perceived usefulness: This term can be define as "the degree to which a person believes that using a particular system would enhance his or her job performance". (Davis, 1989) Perceived usefulness has a positive effect on consumer acceptance and approval of the e-banking technology (Pikkarainen,et al., 2004) .
- Communication security: Customer is always looking for using any safety services. We can define the security as the customer's perception of the degree of protection against any threats. However, those threats can be made through network and data transaction or through unauthorized access to the customer's account. What if I did a wrong transaction? Who will bear any systematic error in the e-banking? Those questions that the customer always asking himself about if the new technological system has a good security channel or not.

- Perceived trustworthiness: Customers often do not buy products or services if they are not confident of them or from the company they are dealing with. Same as the e-banking services, in which the trust of the customer is closely tied to the bank throughout the bank's image, bank's reputation, bank's employee and all the bank's services which they are provided (Yousafzai,et al., 2003).
- Accessibility and Availability: Those two factors have a positive relationship with customer's satisfaction. The web page of the bank can affect on the acceptance of the customers to the services that the bank provided. There is a difference between the e-banking and the traditional banking in which the first one the customer can do the transaction anytime and from anywhere in an efficient and effective manner (Ismail & Osman, 2015).
- Standard of Living: this is also an important factor that affects the customer toward using the e-banking. Low income and low opportunity for a job will lead customer not to use any technological devices and the ability to buy electronic devices will be costly related to the bad standard of living.
- Saving Transaction Cost: customers delight is to have a low cost with high benefit from the services. So, the main goal for the bank is to provide the customer with a full service that can influence him in good way.
- Time saving: A customer can do any transaction while using the e-banking without any physically effort for visiting a branch.
- Subjective norms: Every customer can be affected with the word of mouth of the other customers even if it's positive or negative effect. However, customers are influenced by opinion of people in adapt or not to the new technology that are provided (Tarkiainen & Sundqvist, 2005).

Factors influencing banks in adopting E-banking system:

Before accepting any new services or application, bank's decision is the first step toward the use of e-banking. Here we will highlight the most important factors that influence banks to adopt e-banking technology system.

- Banks' and bank managers' attitude: The bank's manager toward a new technology devices and perception to new services is very critical important. The role of bank manager before accepting any new service is to study those factors: the vision of future, prediction of customer acceptance, and organizational culture innovation. Every bank has a strategy to work through it, and that strategy should be formulated from the top management who should motivate his entire employee from any department toward achieving this type of technology and to introduce better services for the customers.
- Relationship and communication channel: The relationship between the bank and the employee is a very important issue to take it into consideration. However, also the relationship between the peers at the work can influence on the customers. As the e-banking technology needs coordination from every department in the bank. Banks can develop an effective distribution channel as strategic tools to differentiate themselves from the competitors (Akinci, et al., 2004).
- The image of the organization: What distinguishes any company in the world is the public image of the company and reputation. Therefore, the image of the bank is always tied with the trust of the customer. So the main role for a bank is to create a good image about the company itself and the services that will provided for the whole customers of the bank, as the customer always

need the credibility that consist of: confidence with the bank's services and the good reputation of the bank (Jun & Cai, 2001).

- Effective employee: Good skills, attitude and well trained employee have an influence for a bank to adopt the e-banking system. Bank needs a self efficacy employee that can depend on them in a challenging situation. Customers will always deal directly with the bank's employee, so the employees with a high self efficacy and knowledge have a high level of task performance and use of new technology such as the e-banking (Noe & Wilk, 1993).
- Financial Expense: It is important to study the cost of every new technology before `introducing it to the market. Banks should have the enough budgets to cover the cost expense of the e-banking such as the website, internet connections, tools, information system, etc. Offering high service with low cost for customer is the potential competitive advantage for the bank (Ahmad, & Al-Zu'bi, 2011).

2.7 Advantages and Disadvantages of E-banking technology

Among the development of technology over decades, E-banking system enable financial institution customers, individuals and business to access account, obtain information, and make transactions in an easily way. There are several advantages from adopting e-banking technology:

- Time saving and comfort: Services are available seven days a week, 24 hours a day, and effort spend is very little without the need to visit the bank (Auta, 2010).

- Confidentiality and privacy: Only the customer has the ability to access to his account by using his own PIN code, which preventing unauthorized access to his account.
- Increase Profitability: Because people by nature keep up with the evolution of technology, the e-banking was a good choice to increase the market share, profitability and to have a competitive advantage among competitors (Siam, 2006).
- Enhance the Image: Successful bank is based on the innovation of new banking services to attract customers; this will lead to enhance the brand image and reputation of the bank (Oladejo & Akanbi, 2012).

Disadvantages of E-banking technology:

E-banking also has several disadvantages these include:

- A lack of knowledge by employees: In this case, the lack of the knowledge about the idea of e-banking and how to use this kind of technology can affect the customer in a negative way, which leads them to avoid this kind of services because of the misunderstanding from the employee (Bergiel,et al., 2008).
- A lack of expertise in technological application: A beginning of a new service requires a complete knowledge of the service by the technological expertise that the whole application will be depending on the way they have been introduced and designed (Bergiel,et al., 2008).
- Cash availability: in the e-banking technology like using the internet banking the customers are not allowed to make deposit or withdrawal of their money (Daniel, 1999).

- Cost: e-banking has a certain systems requirements such as accessibility to computer, high memory, and screen resolution which can be added as an extra cost on the customer (Daniel, 1999).

2.8 Information and Communication Technology in banking sector

ICT plays an important role in increasing the economic growth and the profitability of the country. It has the opportunity to separate the economic growth from environmental corruption. However, ICT has removed the obstacles of time and distances. In addition, it provides a competitive advantage for banks to assess their technology and their e-banking system (Plepys, 2002).

Nowadays, business environment becomes more vital and growing rapidly fast because of the technological innovation and the awareness of customers. In the 21st century service industry such as the banking sector works in a complex and competitive environment portrayed by these evolving conditions and highly unpredictable economic climate. ICT considers as the worldwide change curve.

Most companies are achieving their success through the technological information system they have. Information system have crucial role in contemporary organization. However, those companies should always adjust their financial services to remain applicable in time of changes. Banks apply ICT to their work to survive and thrive locally and internationally, and to have a competitive advantage so can compete effectively with each others. ICT also help bank's manages how to make decision, how to plan, and what type of products and service should produce to their customers in the banking market to consolidate the speed and quality of service delivery (Agboola, 2007).

ICT has become the heart of banking sector. There is a strong relationship between the ICT and the banking sector linked to the existence of a good infrastructure that can easily helps banks and other financial institutions. ICT infrastructure should have these primary issues such as a good network, security and privacy to affect positively through the intention of the individuals.

- Good Network: Using ICT products like online banking, electronic payments, security investments and exchanging information will bring supreme services to customers with less effort and time used to make these transactions. And using this online network can reduces the bank's operational costs besides accelerating the accomplishment of these various tasks. (Aaliyu & Tasnim, 2012)
- Security: Security has many risks that come due to lack of usage awareness of this innovational technology (Aliyu & Tasnim, 2012). Therefore reassuring that this system should be resistant to any external hackers and terrorist attacks beside any viruses and wastage by providing public key infrastructure by providing biometrics and passwords for these different bank's electronic applications to customers (Goyal, et al., 2012).
- Privacy: The customer should trust that using mobile banking services would not lead to loss of his credit and private information, besides recording the different transaction he makes should not be exposed to the public (Goyal, et al., 2012).

2.9 Palestinian's ICT Overview

Since 1967, Israel had planned to control the telecommunication sector in Palestinian areas which was easily to do so and specifically connect it to its telecommunication network. The ICT segment in Palestine has been developing since the Oslo accord was marked and privatization of telecom sector which prompted the development of Palestine Telecommunication Organization (PalTel). Palestinian government plays an important role toward the ICT in Palestine through finance several projects in this field and developing a restrict law to protect the ICT sector.

Over the most recent two decades, Palestine's ICT area has developed empowered by the accessibility of related infrastructure such as: PCs, software, hardware, broadband internet, and many widely internet access. It is necessary to have an effective infrastructure in order to build an e-banking sector which allows the banking market in Palestine to have a high competitive tech to promote and market their services locally and internationally (Maitah & Hodrab, 2016).

Palestine has a large Palestinian Telecommunications Company (PalTel) which was established in 1997 as a public shareholder company. It is one of the largest companies in Palestine on the hand of sales volume, market share, and financial stability. PALTEL works in different field such as fixed line, cellular (mobile operator) and internet services (ADSL and VPNs). Today, PALTEL group consists of the following subsidiaries: PALTEL, Jawwal, Hadara, Palmedia, and Reach (Maharma, 2014).

After 1997, PALTEL introduced the infrastructure and prepared the network, currently it covers 90% of the whole Palestinian areas with a full network system. In

1999 and 2006 PALTEL established two mobile companies because of the rapid improvement in mobile technology that Palestine had faced. The first one in 1999 was JAWWAL and the second one in 2006 was WATANIYA. The main purpose for those companies is to benefit all the people with their different services such as local and international calling, SMS, MMS, and Internet via their devices. Unfortunately, Israel is still limiting the two companies' capacity and their ability to develop and specialize its infrastructure (Khatib, 2013).

Palestine is witnessing a very high development in information technology and telecommunication such as the companies that provide software and hardware solution for Palestinian society. Although, Palestine is a state under the Israeli occupation, other several information technology companies are working with international IT companies such as Dell, Cisco, and HP (Khrewesh, 2011).

Related to the development of technological devices in Palestine, the usage of technology such as Computer, Internet, and Mobile is rising. According to the Palestinian Central Bureau of Statistics (PCBS) it shows that the using of mobile, internet, and computer is rising every year more than the previous years (Khatib, 2013). The latest statistical studies done by PCBS shows in 2014 the percentage of Palestinian household with own computer is 63.1% and 48.3% having an internet access. However, the percentage of Palestinian household have mobile line is 97.8% (Palestinian Central Bureau of Statistics, 2014).

It is clearly shown that Palestine is working on developing the ICT sector but, the ICT infrastructure needs a lot work and development. Moreover Palestinian ICT organizations have business contracts with European, USA and other Center East and

North Africa (MENA) based organizations, all ranges where the Palestinian ICT industry is hoping to additionally development. We should not forget that Palestine is an occupied country, as that has a negative impact on the development of technology. Related to this bad situation Palestinian ICT needs financial support to grow and achieve their goals (Corps, 2013).

2.11 Overview of the Palestinian Economy

The Palestinian economy has suffered a lot of fluctuations and shocks along the years of the Israeli/Palestinian conflict. However, after the Oslo Accord in 1993, which states the Palestinian economy started to be "quasi- independent" especially after the Palestinian National Authority (PNA) took over the West Bank and Gaza.

However, Oslo which states a peace agreement signed by the Occupying Power of Israel and the Palestine Liberation Organization in Washington, United States, in 1993. This agreement includes recognizing of the Palestine Liberation Organization as the legitimate representative of the Palestinian people. Also, The Palestinian Liberation Organization recognizes the State of Israel consist of (78% Of Palestinian Lands - all of Palestine except the West Bank and Gaza).

Despite the efforts towards an independent Palestinian economy, it continues to suffer due to restrictions imposed on access and movement of goods and people between the Palestinian cities, Israel's full control over the crossings and borders, high reliance on the Israeli economy and currency making the Palestinian economy highly vulnerable to the Israeli monetary policies as well as the countries' currencies available in the market (US Dollar, Jordanian Dinar and Euro), settlements expansion, land confiscations and systematic extradition.

Obstacles facing the Palestinian economy could be summarized as the following: Limitedness of available opportunities for employment or self-employment, low purchasing power of the population, the growth in the sectors is less than its capabilities, the dependency on the Israeli economy and finally the increasing costs of internal trade due to restrictions on movements between the Palestinian cities.

However, despite the aforementioned obstacles and the political and economic unrest, the Palestinian economy has witnessed growth between the years of 2003 and 2013; this growth was supported by the easing of Israeli restrictions on access and movement which is a prerequisite for boosting any economy as well as a mixture of the Palestinian Authority (PA) reforms. With aspirations to reach a peace agreement, the Palestinian economy offers many rewarding and profitable opportunities for investment in several sectors such as construction, pharmaceutical, quarrying, ICT etc. which also could help increase the flow of money into the country and create more job opportunities (Sarsour, et al., 2011**).**

2.12 Banking Sector in Palestine

Banking sector in Palestine is administered by Palestinian Monetary Authority (PMA), in which represents the Central Bank of Palestine. PMA is an independent institution that focuses more on achieving the stability and effectiveness of Palestinian financial system by, formulating and executing banking polices and regulations that will safeguard the banking system and maintain the local economic growth towards sustainable development and prosperity. These objectives are achieved through: (PMA, 2016)

- Effective supervision and control over banks, money changers and companies that are related to loan lending (microfinance institution).

- Establish a strong monetary policies and strategies to achieve a little inflation and stability in price.
- Follow-up development and work on the implementation and operation of an effective and modern payment system.

PMA was firstly established in 1994, through a presidential decree and later by the Palestinian Legislative Council Law No. (2) Of 1997 which determined the full authority and the independence of the PMA.

PMA has issued a Corporate Governance Code for banks to make sure that all the banks are working related to the policies and regulations that PMA has established. Therefore, this will build a public trust and confidence in the Palestinian banking system. On the other hand, this Code will also build a long-run relationship between different banks and between the customers itself.

Currently, there are fifteen banks operating in Palestine, which they are a combination of local and foreign banks. Seven of them are local banks; consist of two categories Local Commercial Banks such as Bank of Palestine, The National Bank, Al-Quds Bank, Palestine Investment Bank, and Local Islamic Banks such as Arab Islamic Banks, Palestine Islamic Bank and Safa Bank. However, foreign banks such as; Cairo Amman Bank, Arab Bank, Jordan Kuwait Bank, Jordan Ahli Bank, Bank of Jordan, Egyptian Arab Land Bank, The Housing Bank for Trade & Finance and Jordan Commercial Bank.

The Palestinian banking sectors are properly built in an efficient and effective manner. Moreover, the Palestinian Banking system involved primarily of the Banking money Law No. (2) Of 2002 and in addition the PMA Law No. (2) of 1997

are being changed with the help of the IMF, to meet best global practices and standards, consequently giving a satisfactory corporate administration lawful condition that is basic to the effective improvement and presentation of a corporate administration code of best practices.

Banking sector in Palestine is constantly evolving the output of economic growth. However, Palestinian banks have a specialized Information Systems in financial transactions and accounting entries. One of the basic requirements of most Palestinian banks is to work on the use of technology innovations. Moreover, Palestinian banks are using several E-banking services as we will explain in the following section (Sarsour, et al., 2011**).**

2.13 User acceptance model

A best way to achieve research purpose is to introduce a user acceptance theory and model. However, any new technological idea should be taking into consideration that consumer use the most important predictor of experience. According to technology extent of use, the major role for applying new devices such as the e-banking is to measure how the consumer makes sense about the products and services that provided by the supplier. The strong relationship between the supplier (Banks) and the buyer (Customers) can reflect the behavior of the customer toward the product or service that he is using (Eriksson, et al., 2005).

2.13.1 Theory of Reasoned Action

One of the theory that explains the person's adoption of new innovation is the theory of reasoned action (TRA) which was developed to clarify the relationship between the intention to use this innovation, the attitudes and norms that defines the person's beliefs and evaluation of possible outcomes of this innovation, and the these two

combined (intention and attitude) will motivate our behavior whether it is positive or negative. Not to forget this was the main and basic theory and the other theories were emerged from it (Ajzen & Fishbein, 1988).

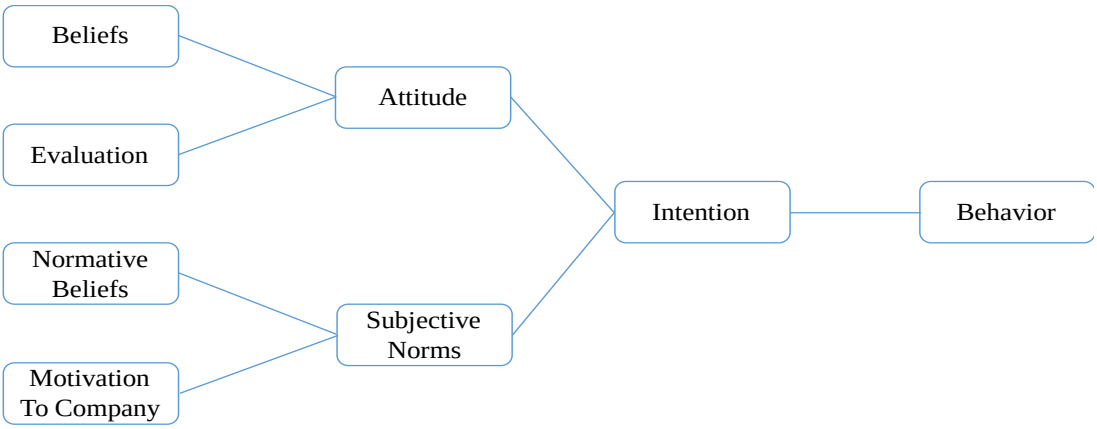

Figure 2.1: TRA, Source: Ajzen & Fishbein, 1969, 1980

2.13.2 Technology Acceptance Model

The TAM (Technology Acceptance Model) is a model that focuses on providing more information about the attitude of the customer and the intention in applying such new technology or service. The successful of the new service can be measure by the degree of acceptance from the user of this service. TAM is an information system and an extension of both, Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPR). This model shows the relationship between users' belief and users' attitude, intention toward the service. According to TAM users' attitude can be influence by two factors that are related to behavioral beliefs; perceived usefulness and perceived ease of use (Aderonke, 2010).

Perceived usefulness can be define as the degree to which a person belief that using such new innovation technology will enhance his/her performance. On the other hand, Perceived ease of use can be define as the degree to which a person belief that

using such a new innovation technology will be comfortable and is not taking much time and effort from the user.

According to Davis et al. (1989) perceived usefulness has a direct effect on the usage behavior. So, as the e-banking is a new technology device, the major role for the bank is to provide their customers with a suitable service to increase their performance and their intention in using the services that they include. Perceived usefulness is influenced by perceived ease of use. In reality, most of people can see that if the service is requiring less effort, it will be useful to use it (Suki, 2011).

As long as, both perceived usefulness and perceived ease of use are not fully set the user's intention to adopt e-banking, there should be other factors that can affect on the user's intention for using it such as; security and privacy, internet connection and speed, and perceived enjoyment of the service (Aderonke, 2010).

The following figure can explain the Technology Acceptance Model:

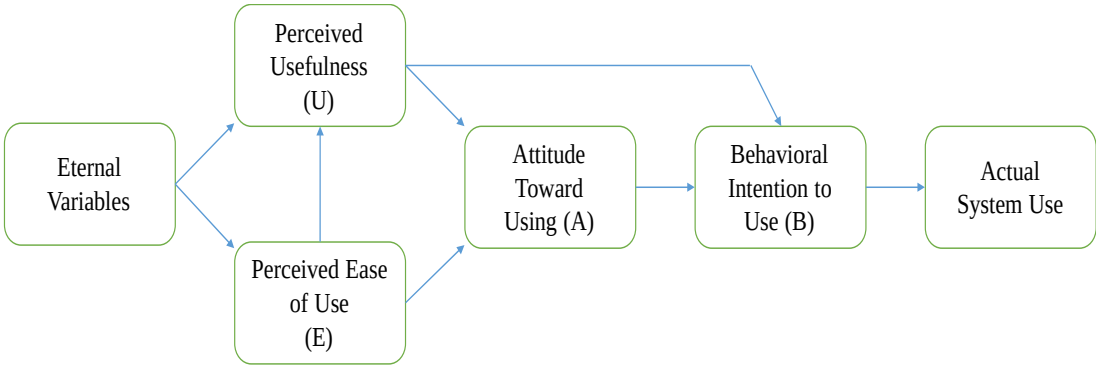

Figure 2.2: TAM, Source Venkatesh & Davis, 2000

2.13.3 Theory of Planned Behavioral

This model is an extension of the theory of Reasoned Action (TRA). Both the TRA and TPB emphasize that behavioral intention lead to the behavior itself. In this theory another factor has been added, along with attitude and subjective norm is the perceived behavioral control (PBC) in which the individual has less control over the behavior. According to this theory, the intension to use for a new technological device can be affected by consumer behavior which can be affected by the three factors attitude, subjective norms and the perceived behavioral control. Moreover, the additional factor that has been added (PBC) will influence both the behavioral intention and the behavior (Taylor & Todd, 1995).

The linkage between the behavior and the intention indicate that people prefer to engage in behavior they intend to perform. As we know the human behavior can be define as the full range of physical and emotional behaviors the person has toward doing an activity (Conner & Armitage, 1998).

In this theory human behavior has three kinds of consideration or dimensions we can called them that is guided by; Firstly, (behavioral beliefs) that represent the features of the behavior for the customer and the consequences results of those behavior. However, it is the extent by which people belief that using such a system will improve the customer services in general. By following the expectancy value conceptualization (EVC) and from a statistical perspective the performance of such behavior will lead for a result and evaluation of those results. Secondly, is normative belief which represents the influence of other's preferences about which to pull into behavior or not. Also it can be defined from the view of the society as the individual's perception of social compression to adopt or not adopt the new

technological innovation. However, it is similar to the word of mouth that most people nowadays influence by the opinion of others by using such services or not. Thirdly, control beliefs; which can be define as the existence about the factors, resources and opportunities that can affect positively as an acceptance of the behavior, or which can affect negatively and consider it as an obstacle to the behavior. However, given an adequate level of existing control over the behavior, the individuals are relied upon to do their expectations when the opportunity emerged (Conner& Armitage, 1998).

This figure illustrates how theory of planned behavioral works is:

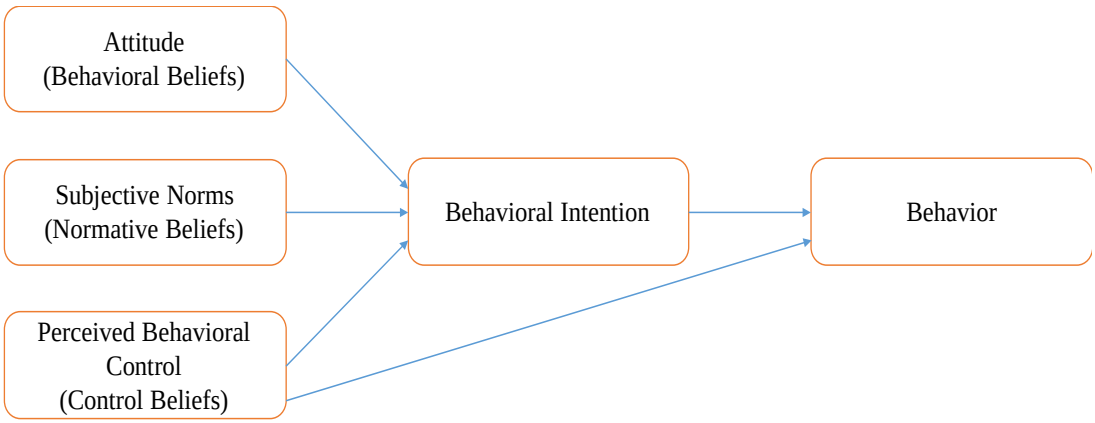

Figure 2.3: TPB, Source: Montano & Kasprzyk, 2015

Here we will talk about each factor that affects the intention and behavior:

Attitude (ATT)

Allport (1967) stated attitudes as "a mental and neural state of readiness, organized through experience, exerting directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (Richardson, 1996).

Attitude has many definitions but it concentrates mainly on the person's favorable or unfavorable evaluation and response toward another object by methods, variables and factors that lead to this result. Attitude's construction prevents direct response to the object and effects its evaluation negatively or positively, and whether the person respond himself or to others, Reponses made in public or in private also differs, and also separation between verbal or non-verbal responses must be performed (Ajzen, 2005).

Attitudes are also determined by the person's behavioral beliefs which are the belief of the result and characteristics of performing the behavior, measured by evaluation of those results or characteristics. Therefore, the person with strong beliefs that positive results will appear from performing the behavior will have positive attitude towards this behavior, however, the person with strong beliefs that negative results will appear from performing this behavior will have negative attitude towards this behavior (Montano & Kasprzyk, 2015).

Subjective Norms (SN)

Subjective norms are an individual's view of the social pressure that comes from other to perform or, not to perform the target behavior. On the other hands, it can be characterized as the individual's impression of other people perspectives and thoughts on the proposed behavior. Even though it reflects the word of mouth by how the individual is affected by the opinion of others. For example, "my friend thinks that I should quit smoking". This is a type of motivation for the smoker person that his friend will affect on his behavioral and decision. The ability to try hard and how much time he needs to put his all effort on taking off smoking is reflecting the

subjective norms in accepting or rejecting the behavior of other (Rivis & Sheeran, 2003).

Perceived Behavioral Control (PBC)

Perceived behavioral control has played a significant role in the theory of planned behavior in which it can affect the intention and the action of the person. Perceived behavioral control can be defined in many different way. It can be defined as the recognized of how ease or difficulty in implementing the behavior and how past experience will affect on your behavior.

In the Theory of Achievement Motivation (TAM), perceived behavioral control has been defined as the probability to success at any given task or action. Rotter has defined the difference between the perceived behavioral control and the perceived locus of control. He has classified that perceived behavioral control refer to" people's expectation about how ease or difficult in achieving the behavior of interest" (Rotter, 1996). On the other hand, Bandura's definition is the present view of perceived behavioral control, as he defined it in which "is concerned with judgments of how well one can execute courses of action required to deal with prospective situation" (Bandura,1982).

As we mentioned above that perceived behavioral control consider being the most important factor of the planned behavior theory, it can be used directly to predict the behavioral achievement while connecting with behavioral intention. For example, if we have two students in which they have the intention to do master with thesis, and both of them work hard to do so, the student who is more confident in the issue and about his ability to do the thesis is more likely to do so than a student that has a doubt

about his ability in doing his master with thesis. Moreover, there was another term that could be used to define the PBC which is the self efficacy. SE, refer to the how much the individual has a confident about his ability in doing any such activity in which this can affect his behavior in performing it (Ajzen, 1991).

2.14 Application of Theory of Planned Behavior

Many researchers have applied theory of planned behavior in their study to conduct the relationships between the three elements attitude, subjective norms, perceived behavioral control and how they effect on intention and behavior of customers.

The relationship between Attitude and Intention

A study was conducted to test the relationship between internet purchases and the beliefs about the trustworthiness and privacy about the internet using the theory of planned behavior aspects attitude, behavior and intention of the user. Data collected from 193 college students to measure the influence of these aspects on the buyer's decision to answer several questions especially how do they belief about the privacy and trustworthiness? How does it affect their intention to make these purchases and their actual purchase behavior?

According to what was previously mentioned Azjen explained the individual act to certain behaviors is determined by their intention to do that behavior. Seven hypotheses were made using the TPB model to study the user's behavior.

The research conducted that the behavioral beliefs about trustworthiness affect the attitude in a positive way toward purchasing online. Conversely affect positively on purchasing behavior and the intention of the customer. The result of this study was

mentioned that there was a strong relationship between attitude and purchasing behavior (George, 2004).

Another study explained Attitude-Behavior relationship: A theoretical analysis and review of empirical research by both Icek Ajzen and Martin Fishbein, different studies have showed that there was no significant correlation between attitude and behavior related to the cheating in particular examination. However, one of the teachers had tried to measure the attitude of the students and their behavior according to the cheating in the exam. The teacher decided to give the students their exam with true-false questions over a period of 5 weeks. For each week, the teacher put the student's marks on his own paper and gave the student their papers without marks. The students then gave grades to their own exam paper during the following class. Taking into considerations that the behavior criterion has represented the difference between the true score that teacher has put and the score that every student put it to himself. The result was that students were likely to cheat at the exam, if cheating in that exam was useful and can help the student to gain more grades, regarding of their attitude toward cheating in general (Ajzen & Fishbein, 1977).

A study was made to determine customers' preferences towards buying sustainable food. Although the customers' attitudes are mainly positive and there's an increasing customer preference towards sustainable food but because the behavior patterns isn't consisted with attitude this study was made recognize the gap between the attitude towards sustainable food and the intention to buy this food.

A sample of 456 young customers of ages between '19-22' in Flanders, Belgium filled the questionnaire, the sample was chosen to be young because these are the

future customers, educated so they would be aware of sustainable food and the gender male and female were almost the same number. The questionnaire involved many texts, questions, and food items, advertisements for the customer to fill and score.

The results showed that customers with high involvement have high positive attitudes therefore intentions to buy the product but sometimes even if there's a high positive attitude intentions to buy the product it might be linked to many points: the customers' belief of his personal effectiveness when buying this product, availability of the product, price, packaging, social norms of not having family and friends convinced to buy sustainable product. On the other side, social pressure gets intentions to buy, despite negative personal attitudes (Vermeir & Verbeke, 2006).

The relationship between Subjective Norms and Intention

A previous study of a relationship between subjective norms, attitudes and intention in buying organic food. There was a growing consumption of organic food in Finland that is expected to be an expending organic food market. A sample was collected from 200 Finnish customers in one of the local hypermarket in southern eastern Finland the study concentrated on two of the most available categories which are bread and flour and the ages ranged from 18 to 80 years old.

The study was conducted by using a scale measuring the needed categories. As for attitude to buying organic food and subjective norms a five-point Likert scale assorted from completely disagree to completely agree, and the answers for behavioral intention were collected with a five-point scale, starting from "do not

intend" to "certainly intend". a five-point scale from completely disagree to completely agree was used to measure the perceived control

The result found that subjective norms can be considered as an ethical decision reflecting environmental concern. However, a positive or negative attitude toward buying organic food will pass on among people which will affect positively or negatively on other people as a subject of word of mouth that most of the people can easily be affected by others. In conclusion, it has shown that subjective norms can affect intention of buying organic food through attitude (Tarkiainen & Sundqvist, 2005).

Taking the study of Knowledge Sharing Behavior of Physicians in hospitals held in Korea, by SeewonRyua, SeungHeeHOb and IngooHanb. This study has collected from 286 physicians in 13 hospitals in Korea. The aim of this study was how to make the individual knowledge about a particular organization and how to create value and benefits to the organization. It was focusing on doctor's knowledge of sharing behavior. The result found that subjective norms has the strongest effect on intention and behavior unless the two other variables, attitude and perceived behavioral control (Ryu, et al., 2003).

Traditional food and cuisine are one of the important factors of attractions for tourists worldwide so a study was conducted to determine the effect of subjective norms as one of the influences to determine the tourist preferences and destinations.

The study intended to answer the following questions: what are the determinants of tourist intentions to try local cuisine of their holiday destination? Are tourists

affected by their own personal perceptions or by other people opinions? Does tourist past holiday experience influence their choice?

A questionnaire of a holiday scenario was distributed for 393 students and 366 of them were used for final analysis. The scenario stated that there was a meal in a reasonably priced famous local restaurant in New Orleans where the respondent was dining with a close friend. The price was also mentioned and it was said that the restaurant was neither an upscale nor a low-priced restaurant to make it clear for the participant to see the full image. After reading the scenario, many statements with scales of 7 points assess the needed situation.

The results showed that the subjective norm was not considerable predictor of intentions. Conversely attitudes were found to be the dominant predictor of behavioral intentions. Because tourist intentions to try local cuisine on a holiday is mainly affected by personal attitudinal factors rather than normative beliefs, therefore restaurateurs should make their marketing attempts to stimulate and attract attitudinal factors (Ryu & Jang, 2006).

The relationship between Perceived Behavioral Control and Intention:

Perceived behavioral control, self-efficacy, locus of control and the theory of planned behavior. This study by Icek Ajzen was talking about the perceived behavioral control (PBC) with the intention for such behavior and how to measure the PBC. This pilot study focused on leisure behavior, and respondent (students) are asked to make a list of factors related to their thinking about what factors can make climbing to the mountain much easier to themselves: the climate and the weather, useful equipments, lacking skills and experience, and surrounding by expertise. Moreover,

these factors can be considered both internal and external variables. In conclusion it has mentioned that there was a significant effect of PBC toward the intention combining them by self-efficacy and controllability (Ajzen, 2002).

Another study was the application of the theory of planned behavior intention, perceived control and weight loss by Deborah Schifter and IcekAjzen from the University of Massachusetts at Amherst, which was measuring the weight loss of college women related to the theory of planned behavior. The result has seen that the three variables of theory of planned behavior which are attitude, subjective norms and perceived control were all have a significant affected on intention. However, the most effective one related to the weight loss over 6 weeks period was the perceived control as an accurate predictor (Schifter & Ajzen, 1985).

A study was made to assess drivers' intentions to commit specific driving violations: driving and drinking, speeding, close following and dangerous overtaking, a hypothetical scenario was put for each violates action as follows:

- Drinking and driving: you leave a pub after been drinking for three hours at 4 afternoon and may be over the legal blood-alcohol limited for driving but you decide to drive home alone in this fine dry afternoon.
- Speeding: you're driving alone at 4 o'clock in a residential street with cars parked on both sides, the speed limit is 30 mph but yet you decide to drive at the speed of 40 mph.
- Close following: you're driving in a three lane motor way at 4 o'clock on a fine and dry afternoon, there is traffic driving on a speed of 65 mph yet you want to drive faster so you move to the fast lane and find yourself stuck

behind a car driving on a speed of 70 mph so you keep moving until you are a couple of yards away from the other car.

- Dangerous overtaking: you are driving at 4 o'clock in a fine and dry afternoon in an A-class rural road with a 65 mph, the road has many bends and you are stuck behind a large lorry driving on a speed of 30 mph and blocking the view far ahead, although you can't see but you decide to overtake.

These scenarios were written in a way to make a clear imaginary events for the drivers, 240 drivers were tested. The drivers were asked imagine of the four violations whether they would do it or not, why would they not do it, and whether they could think of anyone who might approve or disapprove their behavior.

The result showed that the perceived control is useful to predict behavioral intentions to these four specific driving volitions. To these cases negative reactions were made to these events and as the perceived control increased the behavioral intentions to these violations decreases. And those who felt less in control to themselves are more likely to commit these violations (Parker, et al., 1992)**.**

Chapter 3

RESEARCH METHODOLOGY

3.1 Introduction

The following chapter in methodology will define different research methods used in this study and demonstrate the chosen methods. In addition it will describe the research purpose, research strategy and data collection method and analysis approach. Moreover, this chapter describes the way that data of the study has been collected and the techniques used to analyze data (sampling techniques) and sample size.

3.2 Research Purpose

Depending on the research problem area, we can use several techniques to carry out the research. One can choose any of the three classification of research to deal with research problem such as; Exploratory, Explanatory and Descriptive.

- Exploratory: is often proceeding when problem has not been defined well and not well known or its real field is unclear. However, most researchers tend to use exploratory research when problem is complex. The role of researches is to define, explain and understand the curiosity to evaluate the problem in a new way. Using such as interview with experts is useful for this type of studies (Yin, 1994).
- Explanatory: Is also known as causal research in order to identify and illustrate the nature of cause and effect relationships. However, researchers use this type of research to find the relationship between dependent and

independent variable. This research is useful to see that one variable causes or rebates the value of other variables (Zikmund, 1994).

This research needs to compute the correlation between factors that affect on customer behavior and the intention in using the E-banking system.

- Descriptive: In descriptive research problem is known in contrast to the exploratory research that the problem is unknown. However, is used to procure information with respect to variables or conditions to describe what exist. In this research, researchers need to define and explain the research problem as they are not comprehensive with the situation. Descriptive research doesn't give any explanation about any results related to the problem but only answers questions such as what, where, whom, and how (Yin, 1994).

This research needs to study and describe the current situation of the problem, to answer the research questions which they are in a form of WHAT, and to concentrate on the most important factors that influence on the behavior and intention of using E-banking by customers in Palestine.

3.3 Research Approach

Research approach can be divided into two types; Quantitative approach and Qualitative approach. Quantitative approach is an exploratory research includes collecting and converting data into numerical form. However, results are based on numbers by using calculation statistics and then conclusions can be drawn. It helps to evolve ideas and hypothesis for the research. Using quantitative approach in a way to gain results from a large population by quantify variables such as attitude, opinion and behavior. Moreover, quantitative approach includes data collection as a form of surveys (online survey, mobile survey, and paper survey), face to face interview,

telephone interview and longitudinal studies, whereas qualitative approach focus on describing an event by using words not numbers. It help us to translate and better understand the complex reality of a given circumstances. For example qualitative approach is using the open-ended question that gives the participant the freedom to answer the questions through his/her opinion.

This research aims to study the factors that influence E-banking adoption by customers and how they are awareness in using this type of services. Different factors have been emerged and are tested in an empirical way in order to see how much they have been effective in the adoption of E-banking system. Since all the results of the research are presented in numbers and statistical analysis has been done, quantitative approach is seeing as an appropriate approach to use in this area.

3.4 Research strategy

Research strategy is the process that help researcher to examine the research issue. However, it is a general plan that help researcher follow their research and to determine how they should put their questions and the way that these questions should be answered in an effective way and in a good manner. Every strategy different from one to another, but the effective research strategy should contains a clear objectives, research questions, collecting data resources and consider the constraints that researcher should avoid that can affect the research such as access to data, time, location and money (Saunders, 2011).

According to Yin (1994), collecting the data and finding the final result for it can be done by using five strategies such as survey, experiment, archival analysis, history and case study. Taking into consideration that there are three types of standards to

determine the research strategy: form of research questions, control over behavior, and focus on current event.

Table 3.1: Relevant situation for different study strategies: Source Baraghni, 2008

Strategy	Forms of research questions	Requires control over behavioral events	Focus on contemporary event
Experiment	How, Why	Yes	Yes
Survey	Who, What, Where, How many, How much	No	Yes
Archival Analysis	Who, What, Where, How many, How much	No	Yes/No
History	How, Why	No	No
Case study	How, Why	No	Yes

Since this research aims to answer the question of; what are the factors that influencing the adoption of E-banking by customers? However, the types of questions are in the form of "WHAT", and this research only focuses on present event unless on control over behavior. Survey is a suit strategy for this study as a technique in which information is collected from sample of people through a questionnaire (Naimi, 2008).

3.5 Sample Design

It is very important for researcher to determine the sampling design for the research and how to choose the appropriate one. There are several methods where researchers choose the sample to be suitable to their purposes of the research. Sampling design contains five steps: Define the target population, determine the sampling frame, select a sampling technique, determine sampling size, and the last step is executing sampling process.

3.5.1 Research Population

It is very important to discuss and determine the research population before talking about the sampling issues. Researchers cannot conduct their empirical studies and results will not be accurate even it will not appear without understanding and focusing on research population. Populations can be defining as the whole groups of individuals that researchers aim to conclude their study's result on. However, the populations consider as an elements which who will participate in answering the research problems. The elements are the respondents that the researchers are looking for to answer the questions of the research (Naimi, 2008).

The main objective of this research is to determine the factors that influence the adoption of E-banking and the degree of awareness of customers in using this type of electronic banking system. However, the form of research population in this case is customers who deal with Palestinian banks which have at least one E-banking service. As we discussed in previous chapter the literature review, each Palestinian bank has at least one E-banking service; the research population will be all the customers of Palestinian banks are accepted as a part of the whole population.

3.5.2 Research Sample

The research sampling is the process in selecting units such as people, organization from the whole population of a specific interest. Most researcher prefer to work on research sample rather than the whole population as the sampling process is more practical and rational, it is more useful in saving time and money, and it can be purposive sampling methods efficient and more ethical than taking the whole population. However, the accurate results of any studies can be taken by choosing the right and most efficient sample by 1the researcher (Marshall, 1996).

In this research, were used, as the researcher aimed to focus on bank's customers to obtain the specific information for the research. For this study, questionnaires were distributed to different bank's customers in Palestine. However they were divided according to understand and focus more on the problem area, finding the factors that influence the adoption of E-banking and finally the percentage of correlation between those factors.

Random sample was chosen in the quantitative approach as it can be define as every possible sample of specified size has an equal chance of being selected. In this research, purposive sample was chosen where bank's customer in Palestine can be engage. Therefore, we can represent all population from the purposive sample.

In Palestine, most of the bank's customers are found in all Palestinian areas, villages and governorates. The Palestinian people are recognized as having common civilizations and cultures, customs and traditions, beliefs and concepts. However, each separate area in Palestine has it is own beliefs, culture, and traditions that discriminate one area from another. For example, the norms and beliefs in north

Palestine is difference from the south of Palestine but you can still have a little similarity between them as they both are parts of Palestine. Thus, the research population is not identical and homogenous; the best choice of sampling methods is stratified sampling which can be helpful to represent the research population.

According to our study and with a long research, we decided to divide the Palestinian society into different strata which we called it governorates. Each stratum are measured related to the degree of homogeneity, and all of them have an acceptable degree of homogeneity between each other. After all, we took each sample and divided them into sample units, where all sample units represent the research population.

Palestinian countries are consisting from different governorates, and each governorate has a different number of bank's customers. However, the size of sample in each governorate should meet with the original size of governorates. Therefore, we used the most suitable method to get an accurate and realistic distribution which is the proportional stratified sampling.

3.5.3 Select Sampling Technique

The best sampling technique depends on the sampling methods that most effectively fit and meet the particular goals of our study in the question. In our research we will use the purposive sample and stratified sample. However, this research will depend mostly on distributing a questionnaire as a survey to participants especially bank's customers to fill out the questionnaire.

3.5.4 Determine the sample size

Determining the sample size of the research is very important to show the research population and evaluate the margin of errors. Samples that are too large may waste time, resources and money while if the samples are too small the result of the research maybe inaccurate.

In our research, a number of 250 participants would be questioned.

3.5.5 Executing the sampling process

Is defined as the process of collecting data from our respondents. In our research collecting the data took a place in different provinces in Palestine. The questionnaire structure was designed at a first step in asking different questions to our respondents according to a Likert Scale from scale 1 to scale 7 about using of E-banking system. The next question was personal information that contains demographic questions such as; gender, age, marital status, occupation, highest education level, place of living, annual income and the frequency of using E-banking system**.**

3.6 Questionnaire Design

The questionnaire design can be defined as a structure technique for collecting data in the marketing survey. However, most researchers are using questionnaire as a simple and rapid tool for collecting data in less time and effort. Questionnaire design can make a connection between respondent and researcher and plays a useful role in data collection. Questionnaire has three main goals that enable the participants to follow the study into the right direction. To begin with, the answers that will reveal all information needed about the problem of the study. Coming to, giving the respondent an interesting questionnaire in order to prevent boredom. Ending with,

providing the respondent with the suitable structure of the questionnaire away from complexity to avoid response error.

3.6.1 Specify the information needed

Making sure that the information acquired addresses all the components of the problem discussed and the tactic, especially the research questions, hypothesis, and concentrate on the information needed. We have to know the right data we need to reach in order to be leaded to the right answers. And knowing the sample for the questionnaire is also important for our data collection. In this research our sample will be bank's customers who are living in Palestine.

3.6.2 Interview approach

Surveys are used to collect the needed information by asking people many questions around the problem studied; it can be divided into two categories: questionnaire and interviews. In our case questionnaire is going to be used which is a written list of questions for people to answer. It is designed to take specific information, and serve four main goals. Firstly, collect the needed and appropriate data for our study. Secondly, make data comparable, clear and easy to analysis. Thirdly, minimize the bias in making and asking questions fourthly, make questions variable but contains the same meaning and direct to the desired goal.

Questionnaires can be structured in which questions are decided in advance or unstructured in which the questions and their frame don't have to be determined in advance. The first type will be prepared and distributed to the sample chosen.

3.6.3 Determine the contents

Questions should be constructed in a form to reach the needed information for the problem studied; no question should be included unless it serves the objectives or the hypothesis that was put in the research. Questions must be designed and arranged for respondents to complete alone without difficulties, flows or a chance to be distracted. Respondents must have previous idea about the problem study in order to give useful answers to the questions which should be structured in a way that makes mistakes less likely to be made.

3.6.4 Overcoming unwilling to answer

Even if respondents can answer a specific question, they may be unwilling to do so, either because of the effort required to answer the questions, the context may not seem appropriate or clear for exposure. Therefore the researcher should minimize the effort needed to answer the questions and make his questions more suitable to answer. There can be refusal from respondents to answer sensitive questions such as money, religion, family and any other areas that may cause embarrassment or threats to their own image, therefore these types of questions should be placed at the end of the survey where initial mistrust has been overcome and a link has been created for respondents to give further information, ask a question using third person technique as if referring to other people so that the respondent won't feel irritated, put these questions in a group away from the normal questions that they are freely willing and answer and finally the researcher might put choices for the answers so the respondent won't feel trapped.

3.6.5 Choosing questions structure

Providing a structure for the questionnaire can be divided into two types; structured question and unstructured question. The first type is the structured questions in which the respondent can answer the question from multiple answers by the researcher. For example multiple choice questions. On the other hand, the second type is the unstructured questions in which the respondent can answer the question by using his/her own words with no specified answer. This type can also be called as open ended questions require respondent to express their view openly.

In our research we are using structure questions where respondent can choose only one answer from specified choices. Also, it can be in the form of scale questions, specifically the Likert scale questions where the respondents need to answer the question based on the scale question from strongly disagree to strongly agree.

3.6.6 Choosing question wording

The most important step in creating questionnaire is to use suitable words and rephrase the questions with words that let the respondent to clearly understand the concept of the question. The researcher should take into consideration to match the level of the questionnaire with the targeted segment of respondent.

Avoiding these procedures will force respondents to involuntary answer the question with a wrong way or not be able to answer any question that it is ambiguous or complex. Also, the percentage of refusing to answer such questions will be so high.

3.6.7 Determining the order of the questions

Our main goal of the questionnaire is to let our respondents to answer the questions in a good manner. They should not feel compelled to answer this questionnaire, but they should feel comfortable and interesting in doing so as they are reading an interesting magazine. However, all of this is depending on the order of the questions, as a researcher the questionnaire should be started with asking respondents about their opinion to build a mutual trust between the researcher and the respondent. Although the order of questions is important as the respondent will be following each question step by step as not moving from one idea to another to have a logical order. Taking into consideration that personal question about the respondent such as age, monthly salary etc. should be put at the end of the questionnaire as most respondents say that these questions can consider as a sensitive question.

3.6.8 Form and Layout

The design of the questionnaire can easily affect the respondent in a positive or negative way. Most respondents make their opinion of the questionnaire from the first glance related to the design of the questionnaire. So, the researcher should be careful in choosing the suitable form and layout to attract the respondent. The researcher should use a type and font size that is appropriate to the respondent. It is much better for researcher to number the questions instead of putting any sign before the questions such as stars. Moreover, the language of the questionnaire should be with a high level of education such as grammatically correct and using commas, dots to separate questions from on to another. Most researchers believed that the questions on the top of the page sound more important to respondent than those questions that are on the bottom of the questionnaire. Related to this, it is much important to do the right format in order to have good responses.

3.6.9 Reproduction of the questionnaire

After finishing writing the questionnaire, it is the time to print it out and distributed to respondents. Printing out the questionnaire with a high quality of paper and color is very important tool to gain an accurate result from the respondents. However, the respondents will believe that this questionnaire is useful to answer it by the design and the format of the questionnaire in using high quality of paper and be comfortable to the eye through the use of excellent colors.

3.6.9.1 Pretesting

It is a method or tool that tests the quality of questionnaire and identifies any problem such as unclear wording and eliminates shown error through distributing the questionnaire on a small sample of the audience.

3.7 Research Model

Related to previous literature, theories and model, we managed to identify and explain the most important factors that influence on customers in using the E-banking system. The factors include TAM and TPB.

TAM was used to characterize the acceptance factors of E-banking system by customers in Palestine. Moreover, we used TPB as a complementary of TAM to help understanding and analyzing the determinants of E-banking technology acceptance. As a result, the research general model consists of six factors: Attitude, Subjective norms, perceived control, Perceived Usefulness Perceived ease to use and Behavioral intention.

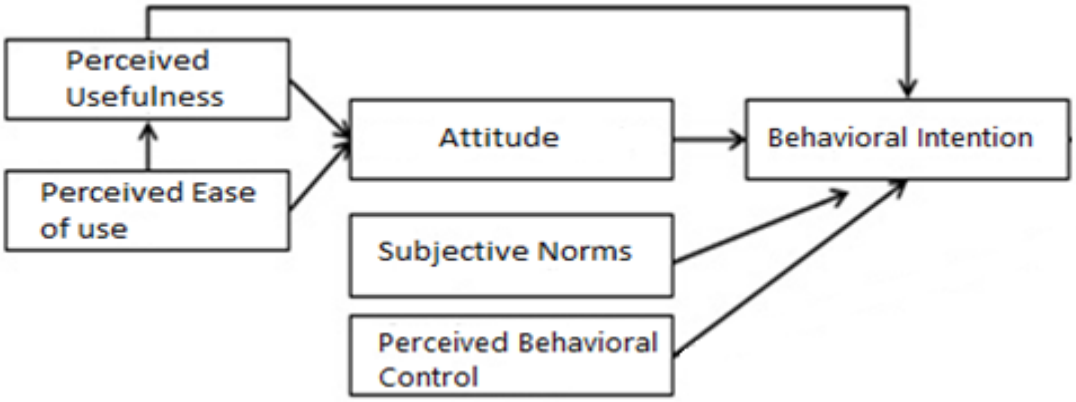

Figure 3.2: Research Model, Source: the researcher

3.7.1 Research Hypothesis

H1: Perceived usefulness has influence on attitude to use E-banking systems.

H2: Perceived usefulness has influence on behavioral intention to use E-banking systems.

H3: Perceived ease of use has influence on perceived usefulness to use E-banking systems.

H4: Perceived ease of use has influence on attitude to use E-banking systems.

H5: Attitude has influence on behavioral intention to use E-banking systems.

H6: Subjective norms have influence on behavioral intention to use E-banking systems.

H7: Perceived control has influence on behavioral intention to use E-banking systems.

3.7.2 Questionnaire Structure

	Reference
Attitude Scale (ATT)	(Hus, et al., 2006)
1. I think using Electronic Banking System is good for me.	
2. I think using Electronic Banking System is appropriate for me.	
3. I think using Electronic Banking System is beneficial for me.	
4. I have positive opinion about Electronic Banking System.	
Subjective Norms (SN)	(Shih & Fang, 2004)
1. People important to me think that using Electronic Banking System would be a wise idea.	
2. People important to me think that using Electronic Banking System is a good idea.	
3. Most people important to me would think I should use Electronic Banking System.	
4. My family important to me would think the using Electronic Banking System is a good idea.	
5. My Family important to me would think I should use Electronic Banking System.	

Perceived Behavioral Control (PBC) (Fusilier & Durlabhji, 2005)

1. Using the Electronic Banking System is entirely within my control.
2. I have the resources to make use of the Electronic Banking System.
3. I have the knowledge and ability to make use of the Electronic Banking System.
4. I am able to use the Electronic Banking System.

Perceived Usefulness (PU) (Pikkarainen, et al., 2004)

1. Using an Electronic Banking System enhances my effectiveness of utilizing banking services.
2. Using Electronic Banking System makes it easier for me to utilize banking services.
3. Using an Electronic Banking System enables me to utilize banking services more quickly.
4. Using an Electronic Banking System for my banking services increase my productivity.
5. Using an Electronic Banking System improves my performance of utilizing banking services.
6. Overall, an Electronic Banking System is useful for me to utilize banking services.

7. I have generally received enough information about Electronic Banking System.

Perceived Ease of use (PEU) (Nasri & Charfeddine, 2012)

1. I think that learning to use Electronic Banking System would be easy.
2. I think that interaction with Electronic Banking System does not require a lot of mental effort.
3. I think that it is easy to use Electronic Banking System to accomplish my banking tasks.

Behavioral Intention (INT) **(**Shih & Fang, 2004)

1. I plan to use Electronic Banking System.
2. I intend to use Electronic Banking System the next 3 months.
3. Add Electronic Banking System to my favorite links.

Chapter 4

DATA ANALYSES

4.1 Introduction

This chapter will represent the results of data analysis of data that has collected through out questionnaires using IBM SPSS software v 20. Moreover, this chapter will also show the results of descriptive statistics and the results of hypothesis testing in order to determine the factors that influence E-banking adoption in Palestine.

We used Statistical Package for the Social Sciences v 20 in order to analyze the research results. SPSS is a software program that can be downloaded on computer used for statistical analysis. SPSS is most useful and suitable with quantitative research and survey strategy such as questionnaire as were using in this research. In addition SPSS can use to find the causal relationship between different variables. SPSS can provide an accurate result which leads the researcher to achieve the research purpose (Elliott & Woodward, 2007).

In the first section of analyzing the data set, we will do the Descriptive analysis by using demographic test for the following variables we have such as; age, gender, marital status, occupation, highest education level, annual income After that we will do several different tests to come up with another results according to our study. Those results can be obtain by using Independent T-Test which is used to compare between two means for two different groups and the ANOVA test to compare

between more than two different groups. In addition, this chapter will use the Cornbach's Alpha Test to examine the reliability for each scale. The final test would be the Partial Least Square test to see the influence of independents variable we talked about in the study on the dependent variable "intention" in order to accept or reject the hypothesis of this study.

4.2 Demographic Test (Personal Information)

250 participants answered the questionnaire from different areas in Palestine. The following tables show the characteristics of participants according to the demographic distribution.

4.2.1 Gender: The research sample includes 250 participants who used the questionnaire. The results have shown that 129 participants were males with a percentage of (51.6%). While 121 participants were females with a percentage of (48.4%).

Table 4.1: Gender Distribution

Gender	Frequency	Percentage (%)
Male	129	51.6
Female	121	48.4

4.2.2 Age: According to the age distribution of our 250 respondents, it has found that the number of participants whose age (18-25) were 73 with a percentage of 29.2%. 122 participants were between age (26-33) with a percentage of 48.8%. 28 participants were between age (34-41) with a percentage of 11.2%. 11 participants were between age (42-49) with a percentage of 4.4%. 12 participants were between age (50-57) with a

percentage of 4.8%. Finally the lowest number of participants were 4 with a group age (58-65) and a percentage of 1.6%.

Table 4.2: Age Distribution

Age	Frequency	Percentage (%)
18-25	73	29.2
26-33	122	48.8
34-41	28	11.2
42-49	11	4.4
50-57	12	4.8
58-65	4	1.6

4.2.3 Marital Status: According to the 250 participants, we found that 142 respondents were single with a percentage of (56.8%), 101 respondents were married with a percentage of (40.4%), 2 respondents were divorced with a percentage of (0.8%) and 5 respondents had other marital status with a percentage of (2.0%).

Table 4.3: Marital Status Distribution

Marital Status	Frequency	Percentage (%)
Single	142	56.8
Married	101	40.4
Divorced	2	0.8
Others	5	2.0

4.2.4 Occupation: Out of 250 respondents, it has found that the number of participants that they are accounting is 24 with a percentage of 9.6%. 43 respondents were managers with a percentage of 17.2%. 27 respondents were Bank employee with a percentage of 10.8%. 36 respondents were students with a percentage of 14.4%. 86 respondents were employees with the highest percentage of 34.4%. 14 respondents were engineers with a percentage of 5.6%. 6 respondents were others of these jobs with a percentage of 2.4%. While 14 respondents didn't answer the question with a percentage of 5.6%.

Table 4.4: Occupation Distribution

Occupation	Frequency	Percentage (%)
Accountant	24	9.6
Manager	43	17.2
Bank Employee	27	10.8
Student	36	14.4
Employee	86	34.4
Engineer	14	5.6
Other	6	2.4
Missing	14	5.6

4.2.5 Highest Education Level (HEL): Through distribution of the questionnaire to 250 participants and according to highest education level, it has shown that 3 of the respondents were holding primary school certificates with a percentage of 1.2%. 5 respondents were at secondary

school with a percentage of 2%. 11 respondents were holding High National Diploma with a percentage of 44%. 174 respondents were studying holding or at current level of first degree with a percentage of 69.6%. 53 respondents were holding a master degree with a percentage of 21.2%. 3 respondents were holding a PhD certificate with a percentage of 1.2%. 1 respondent were had "other" answer with a percentage of 0.4%.

Table 4.5: Highest Education Level

Highest Education Level	Frequency	Percentage (%)
Primary School	3	1.2
Secondary School	5	2.0
High National Diploma	11	4.4
First Degree	174	69.6
Master Degree	53	21.2
PhD	3	1.2
Other	1	0.4

4.2.6 Location: Answering the question of "Where do you live?" from a number of 250 respondents. 101 respondents are living in Ramallah indicates a percentage of 40.4%. 24 respondents are living in Nablus indicates a percentage of 9.6%. 84 respondents are living in Bethlehem indicates a percentage of 33.6%. 41 respondents live in other places in Palestine such as Jenin, Jerusalem, etc.

Table 4.6: Location

Location	Frequency	Percentage (%)
Ramallah	101	40.4
Nablus	24	9.6
Bethlehem	84	33.6
Others	41	16.4

4.2.7 Annual Income ($): Out of 250 respondents, 102 of them had an annual income up to 5000$ with a percentage of 40.8%. While 34 respondents indicated that their income is around 5001-7000$ with a percentage of 13.6%. Moreover, 7001$ up to 10000$ were the income of 49 respondents having a percentage of 19.6%. Lastly, 65 respondents had an income of more than 10000$ indicating a percentage of 26%.

Table 4.7: Annual Income

Annual Income ($)	Frequency	Percentage (%)
Up to 5000	102	40.8
5001-7000	34	13.6
7001-10000	49	19.6
Up to 10000	65	26.0

4.3 Independent sample T-Test

Independent sample T-Test is used to determine whether there is a statistically significant difference between the means in two different groups. (Norušis, 2006)

4.3.1 The Gender for respondents

In our study, we used the Independent Sample T-Test to compare the independent variables (Perceived usefulness, Perceived ease of use, Attitude, Subjective Norms, Perceived Behavioral Control and Behavioral Intention) with the gender of respondents (Male, Female) as both genders took part in the survey to check if there is/are significant differences between both male and female with their answers.

Table 4.8: Independent Sample T-Test Group Statistics

Group Statistics					
Variables	**Gender**	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Perceived Usefulness	Male	129	5.8654	1.07535	0.09468
	Female	121	5.7724	0.93498	0.08500
Perceived Ease of Use	Male	129	5.5581	1.18963	0.10474
	Female	121	5.5545	1.04978	0.09543
Attitude	Male	129	5.9862	1.07534	0.09468
	Female	121	5.9645	0.98123	0.08920
Subjective Norms	Male	129	5.3960	1.09686	0.09657
	Female	121	5.5418	0.99146	0.09013
Perceived Behavioral Control	Male	129	5.7610	1.09581	0.09648
	Female	121	5.6025	1.09138	0.09922
Behavioral Intention	Male	129	5.2817	0.93768	0.08256
	Female	121	5.2810	0.84876	0.07716

Table 4.9: Independent Sample Test

Independent Sample Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig.(2-tailed)
Perceived Usefulness	Equal variances assumed	0.500	0.480	0.728	248	0.467
Perceived Ease of Use	Equal variances assumed	2.050	0.153	0.025	248	0.980
Attitude	Equal variances assumed	0.735	0.392	0.167	248	0.868
Subjective Norms	Equal variances assumed	2.910	0.089	1.101	248	0.272
Perceived Behavioral Control	Equal variances assumed	0.267	0.606	1.146	248	0.253
Behavioral Intention	Equal variances assumed	0.247	0.619	0.006	248	0.995

According to the independent t-test, it has shown that there is no statistical significant difference between group of gender (Males and Females) regarding Perceived Usefulness (P>0.05=0.467), Perceived Ease of use (P>0.05=0.980), Attitude (P>0.05=0.868), Subjective Norms (P>0.05=0.272), Perceived Behavioral Control (P>0.05=0.253) and Behavioral Intention (P>0.05=0.995).

4.3.2 The marital status for respondents

According to the marital status, we have used the Independent Sample T-Test to compare the independent variables (Perceived usefulness, Perceived ease of use, Attitude, Subjective Norms, and Perceived Behavioral Control, Behavioral Intention) with the marital status of respondents for both (Single, Married) to check if there is/are significant differences between single status and married status with their answers.

Table 4.10: Independent Sample T-Test Group Statistics

Group Statistics					
Variables	**Marital Status**	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Perceived Usefulness	Single	142	5.6660	1.08222	0.09082
	Married	101	6.0052	0.87675	0.08724
Perceived Ease of Use	Single	142	5.3857	1.21262	0.10176
	Married	101	5.7723	0.96256	0.09578
Attitude	Single	142	5.8322	1.12331	0.09427
	Married	101	6.1609	0.86645	0.08621
Subjective Norms	Single	142	5.3856	1.09195	0.09163
	Married	101	5.5731	0.98718	0.09823
Perceived Behavioral Control	Single	142	5.5151	1.11997	0.09399
	Married	101	5.8903	1.04483	0.10396
Behavioral Intention	Single	142	5.2371	0.94246	0.07909
	Married	101	5.3366	0.83599	0.08318

Table 4.11: Independent Sample Test

Independent Sample Test						
		Levene's Test for Equality of Variances		**t-test for Equality of Means**		
		F	**Sig.**	**T**	**Df**	**Sig.(2-tailed)**
Perceived Usefulness	Equal variances assumed	1.703	0.193	2.601	241	0.010
Perceived Ease of Use	Equal variances not assumed	4.511	0.035	2.766	238.055	0.006
Attitude	Equal variances not assumed	5.067	0.025	2.573	239.380	0.011
Subjective Norms	Equal variances assumed	0.461	0.498	1.372	241	0.171
Perceived Behavioral Control	Equal variances assumed	1.164	0.282	2.646	241	0.009
Behavioral Intention	Equal variances assumed	0.276	0.600	0.850	241	0.396

Table 4.12: Independent Sample Test/ PEU 1

Independent Sample Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig.(2-tailed)
PEU1 I think that learning to use Electronic Banking System would be easy.	Equal variances not assumed	11.838	0.001	-3.091	240.025	0.002

Table 4.13: Independent Sample Test/ PU 5

Independent Sample Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig.(2-tailed)
PU5 Using an Electronic Banking System improves my performance of utilizing banking services.	Equal variances not assumed	4.756	0.03	-2.420	229.349	0.016

Table 4.14: Independent Sample Test/ PU 6

Independent Sample Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig.(2-tailed)
PU6 Overall, an Electronic Banking System is useful for me to utilize banking services	Equal variances not assumed	4.448	0.036	-3.261	238.312	0.001

Table 4.15: Independent Sample Test/ ATT 3

Independent Sample Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig.(2-tailed)
ATT3 I think using Electronic Banking System is beneficial for me.	Equal variances not assumed	7.702	0.006	-2.933	240.397	0.004

Table 4.16: Independent Sample Test/ PBC 4

Independent Sample Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig.(2-tailed)
PBC4 I am able to use the Electronic Banking System.	Equal variances not assumed	5.184	0.024	-2.912	235.458	0.004

Perceived Usefulness: According to independent T-test, there is a statistically significant difference between the two groups (Single, Married) regarding the perceived usefulness (P<0.05=0.01). Married group consider E-banking is useful more than the Single group (the mean for married group is 6 and single group is 5.66).

This difference can be shown in the item number five of perceived usefulness which talks about "Using an Electronic Banking System improves my performance of utilizing banking services." Firstly, we look for Levene's Test as it is significant we used the equal variances not assumed as (P<0.05=0.03). By looking to the Sig. (2-

tailed) we can see that (P<0.05=0.016) which is mean that there is a statistically significant difference among groups of marital status (Single, Married) regarding the improvement of performance of utilizing banking services by using the Electronic Banking System.

Moreover, there is a difference among the two groups of marital status (Single, Married) in the item number six of perceived usefulness which talks about "Overall, an Electronic Banking System is useful for me to utilize banking services." As Levene's test is significant (P<0.05=0.036) we used the equal variances not assumed. In addition, the Sig. (2-tailed) is significant as (P<0.05=0.01) this mean that there is a statistically significant difference among group of marital status (Single, Married) regarding the usefulness of Electronic Banking System in utilizing the banking services.

Perceived Ease of Use: According to independent T-test, there is a statistically significant difference between the two groups (Single, Married) regarding the perceived ease of use (P<0.05=0.006). Married group consider E-banking is easy to use more than the Single group (the mean for married group is 5.77 and single group is 5.38).

The difference can be shown in the item number one of Perceived ease of use which talks about "I think that learning to use Electronic Banking System would be easy". As Levene's test is significant (P<0.05=0.001) we used the equal variances not assumed. Furthermore, the Sig. (2-tailed) is significant as (P<0.05=0.002) this mean that there is a statistically significant difference among the two groups of marital status regarding learning to use Electronic Banking System would be easy.

Attitude: According to independent T-test, there is a statistically significant difference between the two groups (Single, Married) regarding the attitude (P<0.05=0.011). Married group has more positive attitude toward using E-Banking System than the Single group (the mean for married group is 6.16 and single group is 5.83).

The difference can be shown in the item number three of attitude which talks about "I think using Electronic Banking System is beneficial for me ". As Levene's test is significant (P<0.05=0.006) we used the equal variances not assumed. Furthermore, the Sig. (2-tailed) is significant as (P<0.05=0.004) this mean that there is a statistically significant difference among the two groups of marital status regarding the benefit of using the Electronic Banking System.

Subjective norms: According to independent T-test, there is no statistically significant difference between (Single and Married) group regarding the subjective norms (P>0.05=0.171).

Perceived Behavioral Control: According to independent T-test, there is a statistically significant difference between the two groups (Single, Married) regarding the perceived behavioral control (P<0.05=0.009). Married group has more self efficiency in using E-Banking System than the Single group (the mean for married group is 5.89 and single group is 5.51).

The difference can be shown in the item number four of Perceived Behavioral Control which talks about "I am able to use the Electronic Banking System." As Levene's test is significant (P<0.05=0.024) we used the equal variances not assumed.

Furthermore, the Sig. (2-tailed) is significant as (P<0.05=0.004) this mean that there is a statistically significant difference among the two groups of marital status regarding the ability to use Electronic Banking System.

Behavioral Intention: According to independent T-test, there is no statistically significant difference between (Single and Married) group regarding the behavioral intention (P>0.05=0.396).

4.4 One-way ANOVA Test

One way ANOVA test is used to compare the mean of more than two groups.

4.4.1 The Highest Education Level (HEL)

In the highest education level, we used the ANOVA Test to outline the statistical differences between participants according to their higher education level. In addition, we examined the homogeneity test of variances to see if are any violation of the assumption of the homogeneity. The results have shown as follow:

Table 4.17: Test of Homogeneity of Variances

	Levene Statistics	Df1	Df2	Sig.
Perceived Usefulness	0.411	5	243	0.841
Perceived Ease of Use	0.156	5	243	0.978
Attitude	0.549	5	243	0.739
Subjective Norms	1.101	5	243	0.361
Perceived Behavioral Control	0.284	5	243	0.922
BehavioralIntention	1.806	5	243	0.112

Table 4.18: ANOVA Test (HDL)

		Sum of squares	Df	Mean Square	F	Sig.
PU	Between Groups	7.441	6	1.240	1.225	0.294
	Within Groups	246.019	243	1.012		
	Total	253.460	249			
PEU	Between Groups	2.900	6	0.483	0.378	0.892
	Within Groups	310.492	243	1.278		
	Total	313.393	249			
ATT	Between Groups	7.515	6	1.253	1.189	0.313
	Within Groups	256.065	243	1.054		
	Total	263.581	249			
SN	Between Groups	1.645	6	0.274	0.245	0.961
	Within Groups	271.639	243	1.118		
	Total	273.284	249			
PBC	Between Groups	4.462	6	0.577	0.476	0.826
	Within Groups	294.744	243	1.213		
	Total	298.207	249			
INT	Between Groups	4.208	6	0.701	0.875	0.514
	Within Groups	194.783	243	0.802		
	Total	198.991	249			

By using the homogeneity test of variances, it has shown that all scales have not violated the assumption as (P>0.05) for all of the scales. Thus, by checking ANOVA test, we can see that there is no statistically significant difference among groups of highest education level regarding Perceived Usefulness (P>0.05=0.294), Perceived Ease of Use (P>0.05=0.892), Attitude (P>0.05=0.313), Subjective Norms (P>0.05=0.961), Perceived Behavioral Control (P>0.05=0.826), Behavioral Intention (P>0.05=0.514).

4.4.2 Annual Income

One-way ANOVA is tested to outline the statistical differences between participants according to their income. The results have shown as follow:

Table 4.19: Test of Homogeneity of Variances

	Levene Statistics	Df1	Df2	Sig.
Perceived Usefulness	0.313	3	246	0.816
Perceived Ease of Use	1.570	3	246	0.197
Attitude	0.258	3	246	0.856
Subjective Norms	0.823	3	246	0.482
Perceived Behavioral Control	0.436	3	246	0.728
BehavioralIntention	0.788	3	246	0.502

Table 4.20: ANOVA Test (Annual Income)

		Sum of squares	Df	Mean Square	F	Sig.
PU	Between Groups	2.920	3	0.973	0.956	0.414
	Within Groups	250.541	246	1.018		
	Total	253.460	249			
PEU	Between Groups	9.535	3	3.178	2.573	0.055
	Within Groups	303.857	246	1.235		
	Total	313.393	249			
ATT	Between Groups	2.941	3	0.980	0.925	0.429
	Within Groups	260.639	246	1.060		
	Total	263.581	249			
SN	Between Groups	2.468	3	0.823	0.747	0.525
	Within Groups	270.816	246	1.101		
	Total	273.284	249			
PBC	Between Groups	7.899	3	2.633	2.231	0.085
	Within Groups	290.307	246	1.180		
	Total	298.207	249			
INT	Between Groups	1.494	3	0.498	0.620	0.603
	Within Groups	197.497	246	0.803		
	Total	198.991	249			

Table 4.21: ANOVA Test/PEU1

		Sum of Squares	Df	Mean Square	F	Sig.
PEU1	Between Groups	13.388	3	4.463	2.888	0.036
	Within Groups	380.196	246	1.546		
	Total	393.584	249			

PEU1 I think that learning to use Electronic Banking System would be easy.

Table 4.22: Duncan

Income What is your annual income?	N	Subset for Alpha=0.05	
		1	2
2 5001-7000	34	5.24	
3 7001-10000	49	5.35	
1 Up to 5000	102	5.69	5.69
4 More than 10000	65		5.88
Sig.		0.77	0.429

PEU1 I think that learning to use Electronic Banking System would be easy.

According to the test of homogeneity of variances we can see that (P>0.05) which mean we have not violated the assumption for all scales. By looking to Anova test, we can see that there is no statistically significant difference among group of income regarding Perceived Usefulness (P>0.05=0.414), Attitude (P>0.05=0.429), Subjective Norms (P>0.05=0.525), Perceived Behavioral Control (P>0.05=0.085), Intention (P>0.05=0.603).

On the other hand, Perceived ease of use shows a significant difference between the groups about their annual income as (P) approximately equals 0.05=0.055. By looking to the test of homogeneity of variances we can see that (P>0.05) which mean we have not violated the assumption. Thus, ANOVA test shows that there is a statistically significant difference between groups of income regarding the perceived ease of use. However, this difference was in the item number one in the Perceived ease of use which talks about "I think that learning to use Electronic Banking System would be easy. This mean that groups with annual income of "up to 5000" and "more than 10000" are agree that using Electronic banking system would be easy for both of them. On the other hand, the group that their income is between "5001-7000" and "7001-10000" are agree somewhat that using Electronic banking system would be easy.

4.5 Partial Least Squares (PLS)

The planned model and hypothesis testing was proceeded using Smart PLS 2.0 software. (Ringle et al., 2005). PLS was chosen in this research because it has a little restriction on data distribution. Moreover, PLS contains two stages; measurement model and structural model for analyzing and interpreting the model. Measurement model which is also called the outer model used to appraise the validity and reliability of the items and constructs in the model. Taking into consideration, structural model which is also called inner model is used to evaluate the relationship among construct (Sanchez-Franco, 2009).

4.5.1 Measurement model

The measurement model can be evaluated by using the item reliability, convergent validity and discriminant validity tests. The item reliability can be measured by using Cronbach's alpha in which higher than 0.7 can be seen as highly reliable. Convergent

validity is used when several indicators are used to evaluate one construct by using the average variance extracted (AVE) in which AVE should be more than 0.5. Moreover, discriminant validity defines whether there is any differentiation between the measures of constructs from one another by comparing the square root of AVE which is should be larger than the correlation coefficients (Lin, 2012).

Table 4.23: Interconstruct correlations: consistency and reliability tests (Discriminant Validity)

Cronbach's Alpha	Composite Reliability	AVE		ATT	INT	PBC	PEU	PU	SN
0.918	0.942	0.803	Attitude	**0.896**					
0.939	0.961	0.891	Behavioral Intention	0.673	**0.944**				
0.902	0.931	0.774	Perceived Behavioral Control	0.746	0.620	**0.879**			
0.844	0.905	0.762	Perceived Ease of Use	0.758	0.614	0.755	**0.873**		
0.907	0.927	0.650	Perceived Usefulness	0.838	0.803	0.739	0.756	**0.806**	
0.925	0.943	0.770	Subjective Norms	0.693	0.500	0.610	0.644	0.632	**0.877**

Table 4.23 illustrates that the coefficient alpha for the items within each construct are adequately high and reliable, as all of them are above 0.7 according to the Cronbach's Alpha, Attitude=0.918, Behavioral Intention=0.939, Perceived Behavioral Control=0.902, Perceived Usefulness= 0.907, Subjective Norms= 0.925 and the lowest one was 0.844 for Perceived Ease of Use. In addition, composite reliabilities that avoid the assumption of equal weighting of items were even higher because all of them were over 0.89. Starting with Attitude was equal to 0.942, Behavioral Intention was equal to 0.961, Perceived Behavioral Control was equal to 0.931, Perceived Ease of Use was equal to 0.905, Perceived Usefulness was equal to 0.927,

and Subjective Norms was equal to 0.943. By comparing the square root (R^2) of the average variance extracted (AVE) with the correlations between construct indicates that each construct is more closely related to its own measures than to those of other constructs. Taking into consideration that all AVEs were well above 0.5 in which attitude was equal to 0.803, Behavioral Intention was equal to 0.891, Perceived Behavioral Control was equal to 0.774, Perceived Ease of Use was equal to 0.762, Perceived Usefulness was equal to 0.650 and Subjective Norms was equal to 0.770

4.5.2 Structural Model

The structural model is used to find the hypothesized relationship by calculating both path estimates and t-statistics. (Lin, 2012) In addition, to measure the structural model's predictive power, the R^2 was used to predict the construct of perceived usefulness, attitude and behavioral intention. The R^2 can be defined as the percentage of the variance in dependent variable is explained by independent variable.

Bootstrapping was performed by using 1000 sub samples to test the statistical significant of each path coefficient by running the T-tests.

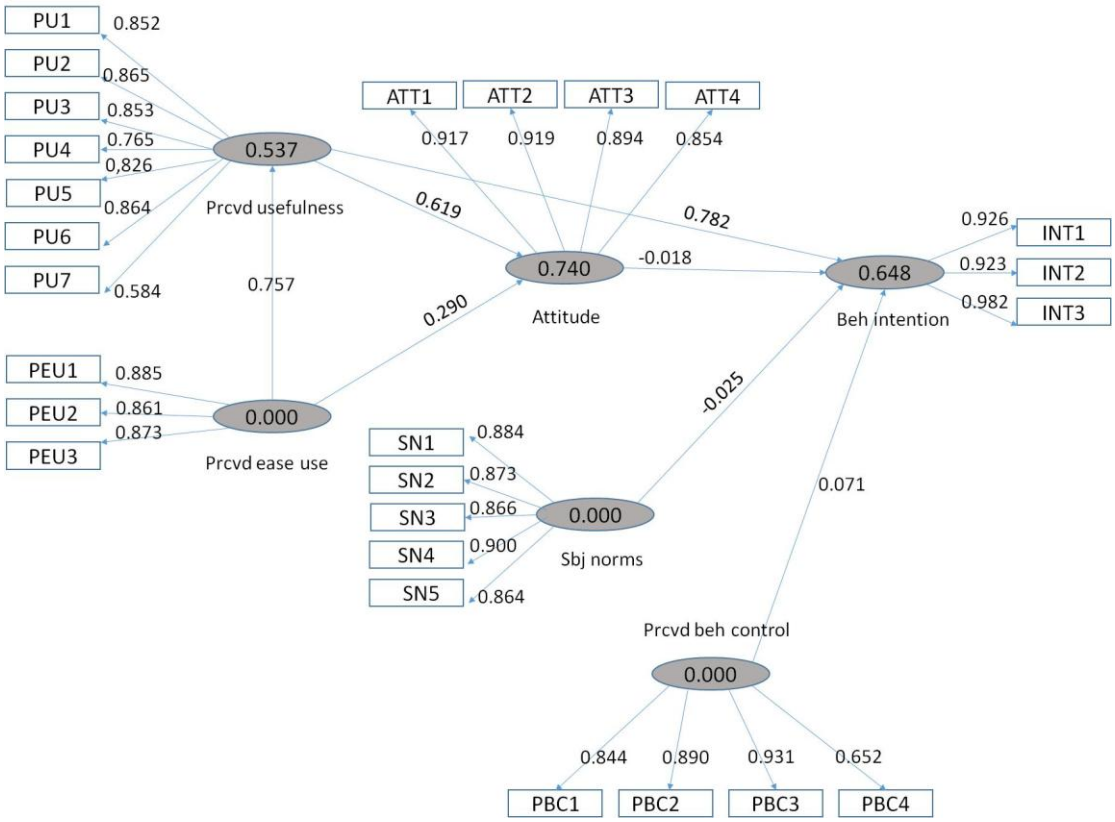

Figure 4.1: Structural model, Source: the researcher

Figure 4.1, presents graphical description of the PLS results. All paths are significant with the model accounting for 54% of the variance in Perceived Usefulness, 74% of the variance in Attitude, 65% of the variance in Behavioral Intention. For the whole model, the R^2 is equal to 65% which mean that 65% of the independent variables (IV) perceived usefulness, perceived ease of use, attitude, subjective norms and perceived behavioral control were good in predict the dependent variables (DV) behavioral intention. According to perceived usefulness, the variables of perceived ease of use explain 54% of the variance on perceived usefulness. However, the variables of perceived usefulness and perceived ease of use together explain 74% of the variance on attitude. In addition and according to behavioral intention, 65% of the variance on behavioral intention explained by perceived usefulness, perceived ease of use, attitude, subjective norms and perceived behavioral control.

In addition to the R-square values, we used another measurement to support these positive results which are the Q-square values (Q^2) that illustrates the redundancy in the endogenous variables. (Lin, 2012) According to the results Q^2 for Attitude= 0.571, Behavioral intention= 0.544, Perceived behavioral control= 0.594, Perceived ease of use= 0.496, Perceived usefulness= 0.342 and for Subjective norms= 0.641 this mean that our model are able to estimate and have a good indicator to predict the endogenous variables as $Q^2 > 0.0$.

Goodness-of-fit (GOF) was used to evaluate the aggregate fit of the model with an effect size of 0.1, 0.25 and 0.36 (Sanchez-Franco, 2009).

In order to measure the overall test structural equation model as we mentioned earlier, the size effect of the GOF was equal to 0.711 in which all the variables were above 0.36, this indicates that size effect of the overall test structure was large.

Table 4.24: Item to scale correlations

	Attitude	Behavioral Intention	Perceived Behavioral Control	Perceived Ease of Use	Perceived Usefulness	Subjective Norms
ATT1	**0.917**	0.574	0.677	0.697	0.773	0.614
ATT2	**0.919**	0.599	0.671	0.664	0.740	0.606
ATT3	**0.894**	0.559	0.622	0.654	0.718	0.604
ATT4	**0.852**	0.669	0.696	0.699	0.768	0.656
INT1	0.694	**0.923**	0.629	0.625	0.842	0.500
INT2	0.550	**0.925**	0.527	0.503	0.645	0.427
INT3	0.642	**0.982**	0.587	0.595	0.762	0.480
PBC1	0.594	0.497	**0.844**	0.638	0.606	0.537
PBC2	0.639	0.582	**0.890**	0.630	0.644	0.545
PBC3	0.658	0.559	**0.930**	0.698	0.674	0.543
PBC4	0.732	0.536	**0.851**	0.694	0.674	0.522
PEU1	0.705	0.544	0.659	**0.885**	0.698	0.560
PEU2	0.575	0.465	0.610	**0.861**	0.573	0.561
PEU3	0.692	0.586	0.703	**0.872**	0.696	0.568
PU1	0.699	0.699	0.665	0.647	**0.851**	0.537
PU2	0.749	0.690	0.652	0.666	**0.864**	0.562
PU3	0.742	0.672	0.634	0.643	**0.853**	0.528
PU4	0.601	0.661	0.485	0.547	**0.764**	0.461
PU5	0.653	0.646	0.587	0.612	**0.826**	0.525
PU6	0.770	0.658	0.644	0.645	**0.863**	0.535
PU7	0.474	0.477	0.481	0.492	**0.584**	0.407
SN1	0.589	0.423	0.474	0.541	0.533	**0.884**
SN2	0.651	0.445	0.574	0.604	0.574	**0.873**
SN3	0.653	0.426	0.585	0.588	0.556	**0.866**
SN4	0.602	0.479	0.531	0.573	0.589	**0.899**
SN5	0.543	0.414	0.511	0.518	0.518	**0.863**

Table 4.24 shows the correlation of each item to its intended construct and to all other constructs. Moreover, all items load more highly on their construct than on other construct and all constructs share more variance with their measures than with other constructs.

Table 4.25: Estimated path coefficients estimations and its bootstrap confidence intervals.

From	To	Path Coefficients Estimation	t-value	Hypothesis supported
Perceived Usefulness	Attitude	0.619	10.320	Yes
Perceived Usefulness	Behavioral Intention	0.782	10.408	Yes
Perceived Ease of Use	Attitude	0.290	4.638	Yes
Perceived Ease of Use	Perceived Usefulness	0.757	16.721	Yes
Subjective Norms	Behavioral Intention	-0.025	0.466	Not
Perceived Behavioral Control	Behavioral Intention	0.071	0.967	Not
Attitude	Behavioral Intention	-0.018	0.214	Not

Table 4.25 shows the hypothesis and t-value for each coefficients estimation. As we can see, the result for hypothesis 1 and hypothesis 2 expose that perceived usefulness is related to attitude (path coefficient (β) = 0.619, t=10.320) which mean that perceived usefulness significantly influence attitude to use E-banking system and behavioral intention (path coefficient (β) = 0.782, t=10.408) which mean that perceived usefulness significantly influence the behavioral intention to use E-banking system. Furthermore, **Hypothesis 1 and Hypothesis 2 are supported.** A test of hypothesis 3 and hypothesis 4 expose that perceived ease of use is related to attitude, which mean that perceived ease of use significantly influence the attitude to use E-banking system (path coefficient (β) = 0.290, t=4.638) and perceived usefulness, which mean that perceived ease of use significantly influence the perceived usefulness to use the E-banking system (path coefficient (β) = 0.757, t=16.721). Furthermore, **Hypothesis 3 and Hypothesis 4 are supported**. A test of hypothesis 5 exposes that subjective norms is not related to behavioral intention,

which mean that subjective norms is not significantly influence the behavioral intention to use E-banking system (path coefficient (β)=-0.025, t=0.466). Furthermore, **Hypothesis 5 is not supported**. Hypothesis 6 exposes that perceived behavioral control is not related to behavioral intention, which mean that perceived behavioral control is not significantly influence the behavioral intention to use E-banking system (path coefficient (β)=0.071, t=0.967). Furthermore, **Hypothesis 6 is not supported**. In addition, hypothesis 7 exposes that attitude is not related to behavioral intention, with mean that attitude is not significantly influence the behavioral intention to use E-banking system (path coefficient= -0.018, t=0.214). Furthermore, **Hypothesis 7 is not supported.**

Chapter 5

DISCUSSION AND RECOMMENDATION

5.1 Introduction

In this chapter we will discuss the managerial implication, recommendation. It will also mention the limitations we had faced through our process in the finding of this study. Moreover, we will discuss some suggestions that could be used and take advantage of for further studies. The final part will be the conclusion and the answers for our study.

5.2 Managerial implication

E-banking is a new trend that facilitates the work between banks, companies and individuals and makes their banking process much easier. Hence, knowing that there are some factors could affect people intentions to use E-banking system would lead banks to know their customers even much more so they will know how to gain a better relationship and plant loyalty between customers and firms.

5.3 Recommendation

E-banking has become one of the most important issues because of its large impact on the whole banking system that lead to a new financial evolution particularly in the Middle East. However, there are still some obstacles that need a lot of efforts to be accepted by the whole banking system and customers in order to succeed. Furthermore the researcher recommends the following points:

- Bank's management should continuously inform its customers for the benefits of E-banking services through smart advertising campaigns such as providing customers with offers of using E-banking services.
- Bank's management should rely on building a strong relationship with customers in order to gain customer's trust and reinforce it by providing solid security system.
- Banks should reassure the idea that E-banking services have a small proportion of risk in order to increase the acceptance of E-banking among customers. Also, providing some guarantees in the form of compensations of any losses while accessing the system.
- The Palestinian Monetary Authority should reinforce the adoption of E-banking services by setting new legislations.
- Make sure banks are committed to the laws provided by the Palestinian Monetary Authority when introducing new services to customers.
- Banks should keep up with technology in order to exploit the available resources for website development.
- Banks should work towards the use of sophisticated electronic services to facilitate the use of these services by customers.
- Raise the awareness of E-banking customers by providing more clear information about the features of this technology through implementing clear advertising campaigns.
- Banks should have direct connection with internet services providers in Palestine in order to leverage the use of internet which in return will positively affect E-banking usage.

5.4 Future Studies

Electronic banking system is considered as a new technology system. There are many different factors that affect the usage of E-banking system. In this research I only showed a several factors that affect consumer's awareness and the using of E-banking System.

In this research we focused on three different variables for TPB such as attitude, subjective norms and perceived behavioral control. In addition we used two variables which are perceived usefulness and perceived ease of use for TAM. So, for future studies we recommend to cover other variables like perceived risk and value, cost and customer's loyalty.

Further studies are important to focus on the infrastructure by understanding deeply the role of PMA, ICT, internet service providers and the government in pushing E-banking technology forward.

In our research we covered the factors that affect the adoption such as time saving, accessibility and availability, trust worthiness and communication security. So, we recommend further studies to focus on the other factors that influence the adoption of E-banking in Palestine.

5.5 Findings

Regarding the t-test analysis, we have found out that there are no significant differences between men and women according to the independent variables ($P>0.05$).

In addition, we have found that there are significant differences between single and married people regarding perceived usefulness, perceived ease of use, attitude and perceived behavioral control. While, there were no significant differences according to subjective norms and behavioral intention. ANOVA analysis showed that there are no significant differences for the education level regarding the independent variables (P>0.05). To mentioned that, there is significant difference between annual salaries for the respondents and perceived usefulness regarding ANOVA analysis. PLS analysis has found out that there are significant effect between the two variables perceived usefulness and perceived ease of use regarding the attitude (t>1.96). Moreover, we have found out that perceived ease of use has significant effect on the variable of perceived usefulness (t>1.96). Also, perceived usefulness has significant effect on the behavioral intention (t>1.96). However, subjective norms, perceived behavioral control and attitude have no significant effect on the intention to use E-banking system (t<1.96).

5.6 Limitation

5.6.1 Location

This study has taken place in specific cities in Palestine West Bank due to the hardness to get into Gaza Strip who have special demographic and geographic traits.

5.6.2 Method of collecting the data

The respondents who answered our questionnaire gave their time and willingness. On the other hand, lots of people refused to answer.

5.6.3 The language of the questionnaire

The mother tongue in Palestine is Arabic language. Due to this not every respondent answer our questionnaire understood the questions fully**.**

5.6.4 The limited factors that have been used in the study

In our study, only perceived usefulness has significant effect on the intention to use E-banking system. While, subjective norms, perceived behavioral control and attitude have no significant effect. Further study could be taken into consideration to focus on why perceived usefulness affected significantly the intention of using E-banking.

5.7 Conclusion

To sum it up, perceived usefulness has a significantly positive effect on the intention to use the E-banking system. On the other hand, subjective norms, attitude and perceived behavioral control have no significant effect on the intention to use the E-banking system.

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APPENDICES

Appendix A: Questionnaire

In the following statements, your responses are needed in order to measure to some extent how

Consumer awareness and usage of Electronic Banking System

For each statement, please use the scale:
1) Strongly Disagree 2) Disagree 3) Disagree somewhat 4)Neutral
5)Agree Somewhat 6) Agree 7) Strongly Agree

	ITEM							
		1	2	3	4	5	6	7
	Perceived Usefulness	☹			😐			☺
PU1	Using an Electronic Banking System enhances my effectiveness of utilizing banking services.	1	2	3	4	5	6	7
PU2	Using Electronic Banking System makes it easier for me to utilize banking services	1	2	3	4	5	6	7
PU3	Using an Electronic Banking System enables me to utilize banking services more quickly	1	2	3	4	5	6	7
PU4	Using an Electronic Banking System for my banking services increase my productivity	1	2	3	4	5	6	7
PU5	Using an Electronic Banking System improves my performance of utilizing banking services	1	2	3	4	5	6	7
PU6	Overall, an Electronic Banking System is useful for me to utilize banking services	1	2	3	4	5	6	7
PU7	I have generally received enough information about Electronic Banking System.	1	2	3	4	5	6	7
	Perceived ease of use	☹			😐			☺
PEU1	I think that learning to use Electronic Banking System would be easy.	1	2	3	4	5	6	7
PEU2	I think that interaction with Electronic Banking System does not require a lot of mental effort.	1	2	3	4	5	6	7
PEU3	I think that it is easy to use Electronic Banking System to accomplish my banking tasks.	1	2	3	4	5	6	7
	Attitude	☹			😐			☺
ATT1	I think using Electronic Banking System is good for me.	1	2	3	4	5	6	7
ATT2	I think using Electronic Banking System is appropriate for me.	1	2	3	4	5	6	7
ATT3	I think using Electronic Banking System is beneficial for me.	1	2	3	4	5	6	7
ATT4	I have positive opinion about Electronic Banking System.	1	2	3	4	5	6	7
	Subjective Norms	☹			😐			☺
SN1	People important to me think that using Electronic Banking System would be a wise idea.	1	2	3	4	5	6	7
SN2	People important to me think that using Electronic Banking System is a good idea.	1	2	3	4	5	6	7
SN3	Most people important to me would think I should use Electronic Banking System	1	2	3	4	5	6	7
SN4	My family important to me would think the using Electronic Banking System is a good idea.	1	2	3	4	5	6	7
SN5	My Family important to me would think I should use Electronic Banking System.	1	2	3	4	5	6	7
	Perceived Behavioral Control	☹			😐			☺
PBC1	Using the Electronic Banking System is entirely within my control.	1	2	3	4	5	6	7
PBC2	I have the resources to make use of the Electronic Banking System.	1	2	3	4	5	6	7
PBC3	I have the knowledge and ability to make use of the Electronic Banking System.	1	2	3	4	5	6	7
PBC4	I am able to use the Electronic Banking System.	1	2	3	4	5	6	7

	Behavioral Intention	☹			😐			☺
INT1	I plan to use Electronic Banking System	1	2	3	4	5	6	7
INT2	I intend to use Electronic Banking System the next 3 months	1	2	3	4	5	6	7
INT3	Add Electronic Banking System to my favorite links	1	2	3	4	5	6	7

◆ Information

Gender ☐ Male ☐ Female

Age_____

Marital Status ☐ Single ☐ Married

☐ Divorced ☐ Others (Please specify)

_____

What is your occupation? _____

Highest Education Level: ☐ Primary School ☐ First Degree ☐ Other (Please specify): _____

☐ Secondary School ☐ Master's Degree

☐ High National Diploma (HND) ☐ PhD

Where do you live? ☐ Ramallah ☐ Nablus ☐ Bethlehem ☐ Other (Please specify): _____

Annual Income($) ☐ Up to5000 ☐ 5001–7000 ☐ 7001–10,000 ☐ More than 10,000

Usage frequency of Electronic banking system ☐ Less than a week ☐ 2-3 weeks ☐ 3-4 weeks ☐ More than 1 month

Appendix B: Questionnaire Structure

	Reference

Attitude Scale (ATT) (Hus, et al., 2006)

1. I think using Electronic Banking System is good for me.
2. I think using Electronic Banking System is appropriate for me.
3. I think using Electronic Banking System is beneficial for me.
4. I have positive opinion about Electronic Banking System.

Subjective Norms (SN) (Shih & Fang, 2004)

1. People important to me think that using Electronic Banking System would be a wise idea.
2. People important to me think that using Electronic Banking System is a good idea.
3. Most people important to me would think I should use Electronic Banking System.
4. My family important to me would think the using Electronic Banking System is a good idea.

5. My Family important to me would think I should use Electronic Banking System.

Perceived Behavioral Control (PBC) (Fusilier & Durlabhji,2005)

1. Using the Electronic Banking System is entirely within my control.
2. I have the resources to make use of the Electronic Banking System.
3. I have the knowledge and ability to make use of the Electronic Banking System.
4. I am able to use the Electronic Banking System.

Perceived Usefulness (PU) (Pikkarainen, et al., 2004)

1. Using an Electronic Banking System enhances my effectiveness of utilizing banking services.
2. Using Electronic Banking System makes it easier for me to utilize banking services.
3. Using an Electronic Banking System enables me to utilize banking services more quickly.
4. Using an Electronic Banking System for my banking services increase my productivity.
5. Using an Electronic Banking System improves my performance of utilizing banking services.

6. Overall, an Electronic Banking System is useful for me to utilize banking services.

7. I have generally received enough information about Electronic Banking System.

Perceived Ease of use (PEU) (Nasri & Charfeddine, 2012)

1. I think that learning to use Electronic Banking System would be easy.

2. I think that interaction with Electronic Banking System does not require a lot of mental effort.

3. I think that it is easy to use Electronic Banking System to accomplish my banking tasks.

Behavioral Intention (INT) **(**Shih & Fang, 2004)

1. I plan to use Electronic Banking System.

2. I intend to use Electronic Banking System the next 3 months.

3. Add Electronic Banking System to my favorite links.