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Factors Influencing Intention to Use e-Payments System (eFAWATEERcom)

العوامل المؤثرة في النية لإستخدام نظام الدفع الالكتروني (إي فواتيركم)

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Authorization

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COMMITTEE DECISION

This Thesis (FACTORS INFLUENCING INTENTION TO USE E-PAYMENTSSYSTEM "EFAWATEERCOM") was successfully Defended and Approved on 7th of June 2017

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DEDICATION

I dedicate this thesis to my family. A special feeling of gratitude goes to my devoted parents, whose words of encouragement are still ringing in my ears. To my sisters and brothers, Hanan, Mohammad, Rawan, Bayan, Tariq and Areej and to my loving wife Sara, your love, support and prayers for me were what sustained me this far. Hani, Zaina and Lana, your energy is unmatched.

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A very special thank you to my friends and coworkers at BLOM bank.

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List of Abbreviations

AM	amotivation
ATMs	automated teller machines
CBJ	Central Bank of Jordan
DOI	diffusion of innovation theory
DTPB	decomposed theory of planned behavior
EDI	Electronic Data Interchange
EE	Effort Expectancy
EM	external motivation
FC	Facilitating Conditions
IDT	Innovation Diffusion Theory
IM	Internal motivation
MM	motivation model
MPCU	model of personal computer use
MTA	model of technology appropriation
PBC	perceived behavioral control
PC	personal computer
PE	performance expectancy
PS	Perceived security
SCT	Social cognitive theory
SDT	Self-determination theory
SI	Social Influence
SLT	Social learning theory
SMS	Short Messaging Service
TAM	Technology acceptance model
TPB	Theory of planned behavior
TRA	Theory of reasoned action
TR	Trust
TTF	Task technology fit
UAEs	User Acceptance Enablers
UTAUT	unified theory of acceptance and use of technology

FACTORS INFLUENCING INTENTION TO USE E-PAYMENT SYSTEM (EFAWATEERCOM)

By
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Abstract

Electronic payment systems are considered a good advancement in the fields of business banking and commerce. In Jordan eFAWATEERcom is the country's e-payment system. Several models were developed over the years to explain and predict users' intention to use novel technology. Of those, the UTAUT is often regarded as highly predictive tool. As with other models of behavior, technology acceptance models such as the UTAUT should be validated in a cultural context. The first purpose of this study was to examine customers' intention to use eFAWATEERcom, and assess the factors that influence that intention. The second purpose was to propose a model that would predict the intention of Jordanian commercial banks customers to use eFAWATEERcom with a high level of accuracy. A questionnaire-based approach was utilized to asses and explain Jordanian's intention to use eFAWATEERcom. The questionnaire was developed based on the UTAUT model, extended by the addition of "Trust" and "Perceived Security". In-depth statistical analysis was performed to explain the results and suggest a working model for future work. This study suggested that performance expectancy, effort expectancy, social influence, facilitating conditions, trust and perceived security are key predictors of behavior intention to adopt the use of eFAWATEERcom, at $\alpha \leq 0.05$. This study also indicated that age and gender do not modulate the effect of the above-mentioned elements on behavior intention.

Key words: Behavior modeling, e-payments, UTAUT, performance expectancy, effort expectancy, facilitating conditions, social influence, trust, perceived security, behavior intention, and eFAWATEERcom

العوامل المؤثرة في النية لإستخدام نظام الدفع الالكتروني (إي فواتيركم)

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ملخـص

هدفت هذه الدراسة الى التعرف على العوامل المؤثرة في نية عملاء البنوك التجارية الاردنية لاستخدام (فواتيركوم)، وتقييم العوامل التي تؤثر على تلك النية. والغرض الثاني هو اقتراح نموذج توقع لاستخدام العملاء إي فواتيركوم بمستوى عال من الدقة. تم تطوير استبيان بناء على نموذج UTAUT، معدلا بإضافة عنصري الثقة والأمن المتصور.

تكون مجتمع الدراسة من عملاء البنوك التجارية الاردنية وتم اختيار عينه ملائمة من ٣٩٢ فردا ، وعد جمع البيانات تم اجراء مجموعة من التحليلات الاحصائية اللازمة لشرح النتائج واقتراح نموذج عمل للعمل في المستقبل باستخدام اسلوب الانحدار المتعدد والانحدار الخطي.

توصلت تادراسة الى مجموعة من النتائج كان اهمها أن توقع الأداء، والجهد المتوقع، والتأثير الاجتماعي، والظروف الميسرة، والثقة، والأمن المتصور هي مؤشرات أساسية للنوايا السلوكية لاعتماد استخدام إفواتيركوم. وأشارت هذه الدراسة أيضا إلى أن العمر ونوع الجنس لا يعدلان أثر العناصر المذكورة أعلاه على نية السلوك. وقد قدم الباحث مجموعة من التوصيات كان من أهمها تبني النموذج المقدم من خلال هذا البحث في البنوك التجارية لتقييم نية العملاء في استخدام إي فواتيركم، وتطوير تطبيقات ذكية باستخدام الهواتف المحمولة لزيادة نية الاستخدام عند العملاء.

الكلمات المفتاحية: نية السلوك، الدفعات الالكترونية، توقع الاداء، الجهد المتوقع، التأثير الاجتماعي، الظروف الميسرة، الثقة، الأمن المتصور، إي فواتيركم

Chapter One

Background

Chapter One

1.1 Introduction

Traditionally, banks are regarded as secure places where customers tend to keep their life savings earned through years of hard work. Over the years, many other functions related to banking emerged. Of these, bill-paying through one's bank account is considered a true advancement. It eliminates the need for physically visiting the various service companies, such as electricity, water, internet, mobile, and even schools, to pay the bills. However, the accelerated pace of life, accompanied with the high traffic in streets, long working hours and extended waiting times at banks have increased the demands for novel banking solutions to cover this area among others.

In the era of digitalization, internet banking has emerged as a new star to solve the above problems and many more. Many banks worldwide have adopted internet banking and started to push customers for its use. A subset of internet banking, namely e-payments, represents an even more exciting advancement in this area. E-payment has the added advantages of personalization, confidentiality, and easy accessibility any place, anytime. Moreover, e-payments through one's bank account means that paper-based record keeping for individual use is no longer needed. In other words, the customer's bank statement will serve as his/her own personalized auditor or budget keeper.

In Jordan, the service of e-payments has been centralized through a single provider company owned by the Central Bank of Jordan (CBJ). it is called "eFAWATEERcom". It is an electronic system of presenting and paying bills. The user has the choice of many

payment channels, such as automated teller machines (ATMs), mobile application, and on-line banking services.

Needless to say, customers should have a say in this, and their opinions and intensions to adopt the technology are of paramount importance. Several models were proposed to evaluate the acceptance of and intent to use new and emerging technologies. Of these, the unified theory of acceptance and use of technology (UTAUT), introduced by Venkatesh and colleagues, stands out as a widely-acknowledged one. The UTAUT model was developed through consolidation of constructs of eight earlier models originally developed to explain information systems usage behavior. Consequently, the UTAUT would be considered the “crème le crème" of technology acceptance models. When applied, decisions on further implementation and/or modifications of the technology at hand would, therefore, be based on scientific evidence rather than mere experimentation.

The banking sector in Jordan is highly advanced in terms of services and technology. However, very few studies have analyzed the issue of customers’ acceptance and intention to banking-related technologies in Jordan. More specifically, no previous reports regarding e-payment usage behavior in Jordan exist. Furthermore, the need for an in-depth analysis using a verified model that was developed and tested over many years and across many disciplines remains unmet. As described above, this would have a great impact on decision making by many stakeholders in both the banking and services sectors.

1.2 Study Problem

E-payments are novel banking solutions that were originally developed and are frequently used to facilitate the acceptance of payment for online transactions (Anderson et al, 2017). In this digital era, electronic payments represent a considerable part of banks’ retail portfolio. Therefore, it is imperative that they adapt to technological innovations.

Accordingly, banks should plan to enhance payment services portfolio for retail customers by offering services in line with customers' acceptance and intentions to use these services.

Several factors, such as perceived ease of use, perceived effectiveness and perceived risk, are usually implicated in customers' adoption of e-payments (Klopping & McKinney, 2004; Fang *et al*, 2014). Different cultures show differing patterns of these factors (Ashraf et al, 2014; Baptista, 2015). In Saudi Arabia, Eid showed that customer loyalty in e-commerce in Saudi Arabia is strongly influenced by customer satisfaction but weakly influenced by customer trust (Eid, 2011), while in Oman, for example, perceived ease of use was regarded as the most significant determinant of e-commerce (Alraja & Aref, 2015). Therefore, researchers should not adapt the findings of other studies but rather conduct their own research related to their unique cultures.

In Jordan, e-payments were suggested, developed and implemented by the CBJ in 2014. Customers' view on the matter, were not widely studied. Almost two years have passed since the first introduction of eFAWATEERcom. A feedback of the process is needed to evaluate the acceptance of customers for this technology. To the best of our knowledge, this is the first study utilizing a validated model in the attempt to evaluate customers' acceptance of e-payments in Jordan.

1.3 Study Questions

The following questions are related to the above-described problem:

1. Will the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) significantly affect customers' intention to use eFAWATEERcom?

2. Will age and gender significantly moderate the influence of the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, and perceived security) on customers' intention to use eFAWATEERcom?

1.4 Study Hypotheses

- H0-1: The independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) will not significantly affect customers' intention to use eFAWATEERcom

- H0-2: Age and gender will not significantly moderate the influence of the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) on customers' intention to use eFAWATEERcom

1.5 Study Model

This study is based on the unified theory of acceptance and use of technology (UTAUT), with some additions and modifications based on relevant literature. Figure (1-1) below details the study model that was adopted, with the hypotheses lines projected on the model.

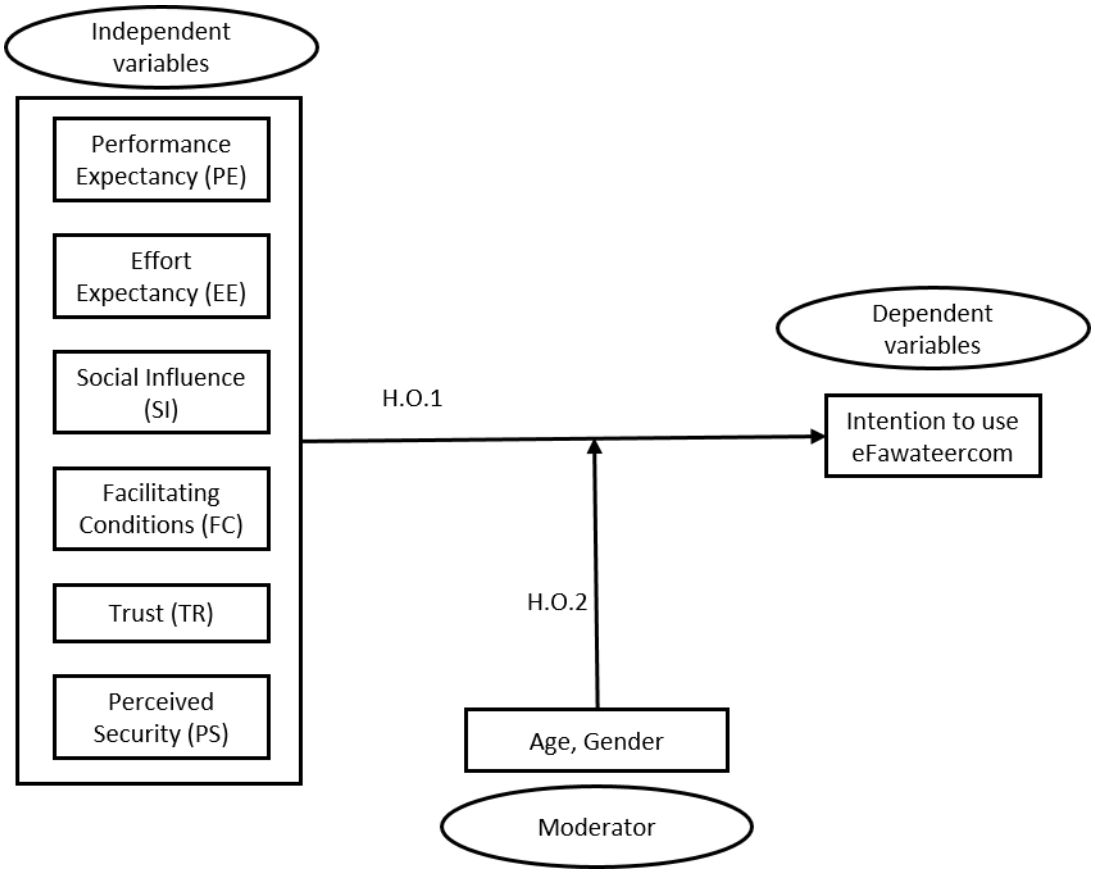

Figure (1-1): Study model and hypotheses

1.6 Study Objectives

The aim of this study was to explore factors influencing customers' intentions to use eFAWATEERcom in Jordan. The following are detailed objectives:

1. To establish a theoretical base-line and practical recommendation according to the result of this study.

2. To find out the relation between performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security and customers' intention to use eFAWATEERcom.

3. To study the effect of performance expectancy, effort expectancy, social influence, facilitating conditions, trust, and perceived security on customers' intention to use eFAWATEERcom.

4. To elucidate the potential moderating effect of age and gender on the effect of performance expectancy, effort expectancy, social influence, facilitating conditions, trust, and perceived security on customers' intention to use eFAWATEERcom.

1.7 Study Significance

This is one of the fewest studies in Jordan to assess customers' views on the intention to use eFAWATEERcom utilizing the UTAUT model. Analyzing the factors affecting the decisions to use this technology will have a great impact on future modifications of the process. Additionally, the researcher will present recommendations on publicizing this technology through addressing specific deficits that will become apparent with the analysis of factors studied.

1.8 Operational Definitions

In this study, the following definitions were used during the study:

- **Intention to Use:** A person's plan to utilize the technology at hand.

- **Performance expectancy:** The degree to which an individual believes that using a proposed system will help him or her to attain gains in job performance.

- **Effort expectancy:** The degree of ease associated with the use of the system.

- **Social influence:** The degree to which an individual perceives that important others believe he or she should use the new system.
- **Facilitating conditions:** The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system.
- **E-payments:** The acceptance of electronic payment for online transactions.
- **eFAWATEERcom:** An electronic system of presenting and paying bills in Jordan owned by the CBJ and operated by Madfooatcom for Electronic Payments.
- **Trust:** assured reliance on the character, ability, strength, or truth of someone or something.
- **Perceived Security:** The sensed degree of resistance to, or protection from, harm.

1.9 Study Limitations

- **Human limitations:** The study measured bank customers' intention to use as a representative sample of eFAWATEERcom users.
- **Place limitations:** The study included customers of commercial banks in Amman as representative of Jordan.
- **Time limitations:** This study looked at the current status at the specified time points without considering previous use.
- **Scientific Limitations:** The study followed an established model which was developed as a unified approach of other models. Other factors not included in this model, which might be relevant are not available.

1.10 Study Delimitation

This study carried out on commercial banks customers in Amman. Therefore, generalizing the results on other types of electronic payments and other areas in Jordan might be questionable

Chapter Two

Literature Review and

Previous Studies

Chapter Two

2.1 Literature Review

It has been suggested by several researchers that when users are introduced to a new technology, a multitude of factors affect their decision on the use of that particular technology. Several models and theories that attempt to explain users' acceptance of newly-presented technology were developed over the years. The earliest of these models can be traced as back as the 1950s.The technology acceptance model (TAM) is considered one of the most important models under the above-mentioned umbrella (Davis, 1986). It was developed as a continuation of the theory of reasoned action (TRA), which was introduced by Ajzen and Fishbein's (Ajzen & Fishbein, 1980). The technology acceptance model has been extensively studied and the unified theory of acceptance and use of technology (UTAUT) is regarded as an enhancement of TAM. It was established by Venkatesh and colleagues in 2003 (Venkatesh *et al*, 2003). The UTAUT combines factors driven from several other models and was originally developed to unify previous models of technology acceptance. It suggests that use behavior starts with an intention to use. The latter is dependent on several factors that can be summarized in four variables; performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FCs). The above-mentioned factors are moderated by other elements such as experience, gender, age and voluntariness of use. Over the past few years, internet (or cyber) pirating and identity theft has emerged as two potential problem correlated with electronic communications. As such, more and more customers are

hesitant to use electronic payments or any other form of electronic monetary transactions. Several researchers have suggested the addition of the factors "Trust" and "Perceived Security" to models attempting to explain customers' intention to engage in electronic payments (Flavián & Guinalíu, 2006; Breward, 2007; Eid, 2011; Al-Ma'aitah, 2013; Meskaran et al, 2013).

Monetary transactions have evolved over the years. Entering the digital era has impacted these transactions among other components of the modern life. More recently, electronic payments are evolving as a preferred modality of trades for a growing number of users. Jordan is no exception. Consequently, Jordan's electronic payments system (eFAWATEERcom) was developed to accommodate these trends.

In the following sections, a summary of the review of literature concerning the different theories used to explain individuals' attitudes, acceptance and use of technology, giving more focus to the UTAUT, which the author chose to employ in this research, will be presented. Then, a review of the global trends of electronic payments (e-payments) and the development of eFAWATEERcom in Jordan will be addressed.

2.1.1 Theory of Reasoned Actions

The first model approach used to rationalize technology acceptance was introduced in the field of social psychology. The approach stemmed from the work of scientists attempting to explain people's behavior via studying the impact of their attitudes towards certain actions. This can be tracked to as early as the early 20th century and into the late sixties. However, different researchers presented different results and explanations, and therefore contradictory data about attitude and behavior was presented.

For example, Fishbein and Ajzen worked on a research program in the fifties to correlate attitude and behavior. Their experiments were concerned with forecasting human behavior both in

practical as well as laboratory experimental conditions. They concluded that attitude towards action can have either direct or indirect impacts, and that attitude can present as either a uni-dimensional element or multi-dimensional factors. Their research set basis for the amalgamation of various theories and research efforts about attitudes. Examples of these include balance theory, theories of attribution, learning theories, expectancy-value theories and theory of cognitive dissonance. Ultimately, their research intended to come up with a model that could anticipate, justify, clarify and eventually affect human behavior (Ajzen & Fishbein, 1980). They first introduced their theory, termed Theory of Reasoned Actions (TRA), in 1967, which was refined and tested over the years until it developed into its final format as published. The theory of reasoned actions is founded on the postulation that people are rational and will take actions based on systematic employment of the information available to them. They further explained that in order for individuals to adopt a certain behavior, they would first take into account the ramifications of their actions (Ajzen & Fishbein, 1980). This theory reflects the relation between intentions and behavior rather than attitudes. It points out that the main and most important predictor of actions and behaviors is intentions. In essence, the theory states that the intention to engage in a certain behavior is a mixture of the person's attitude towards implementation of the behavior as well as subjective norms (Figure 2-1). This means the TRA states that behavioral intentions are affected by social (normative) elements and personal (attitudinal) ones. The theory was criticized to be limited by "correspondence". Correspondence in the context of TRA means that intentions must correspond with three conditions so as to forecast a certain behavior. These conditions are specificity, time-frame and volitional control (Sheppard et al., 1988). So, in order for the theory to predict a specific behavior, the intention must be specific for that behavior, the intention must stay unchanged until the time of the behavior, and the person must be able to choose whether or not he/she would engage in that behavior.

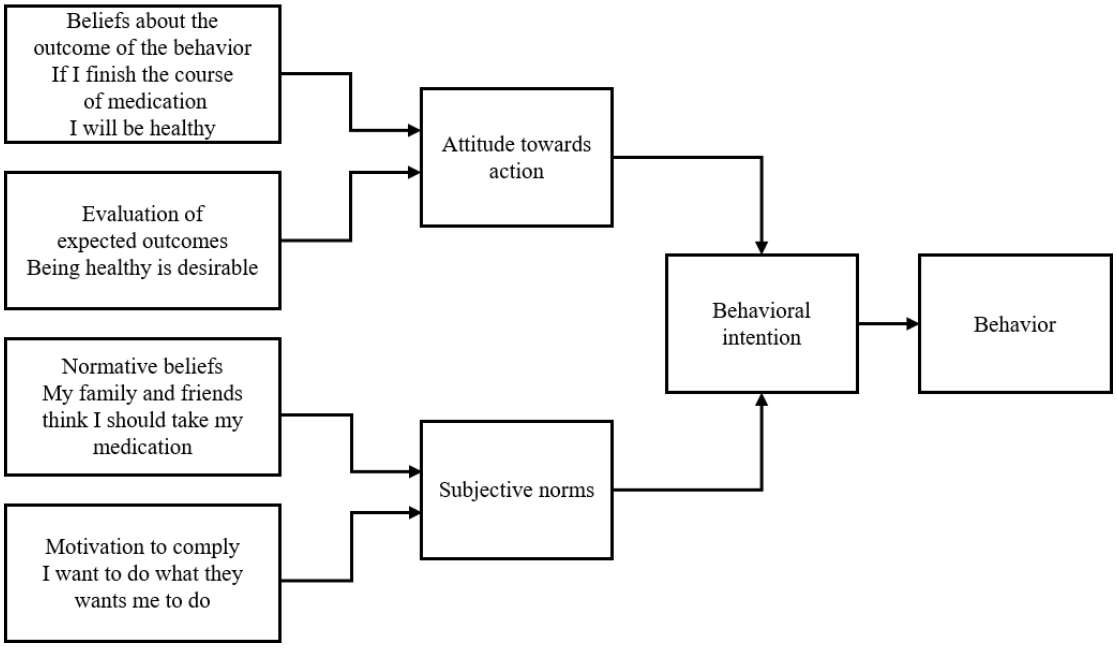

Figure (2-1): Causal diagram of the fundamental elements of the theory of reasoned actions.

The biggest limitation of the theory originates from the assumption that behavior is under unforced voluntary decisions. Therefore, the theory relates only to behavior that is deliberately thought out in advance. Habitual acts, irrational decisions, or any type of behavior that is not determinedly considered cannot be expounded by this theory.

2.1.2 Theory of Planned Behavior

Subsequently in 1985, Ajzen presented the theory of planned behavior (TPB) (Ajzen, 1985). In this theory, Ajzen proposed that intentions are expected to reflect the motivational elements that affect a certain behavior. More specifically, they are manifestations of how hard people would try. Consequently, he suggested that intention to use is influenced by multiple factors and is the only determinant of definite use (Ajzen, 1991).

The theory of planned behavior (TPB) is another continuance of the theory of reasoned action (TRA). Similar to its predecessor, the main and most important element of this theory is the person's intention to engage in a certain behavior. On the other hand, the TPB tackles the issue of behaviors that happen without an individual's volitional control. Indeed, the theory of planned behavior varies from the theory of reasoned action in its incorporation of the perceived behavioral control (PBC) factor (Figure 2-2). Perceived behavioral control means the level of which an individual thinks he/she has control over a certain behavior. This factor explains situations in which a person has less than absolute control over the action or behavior. This can fluctuate across actions and situations (Ajzen, 1991).

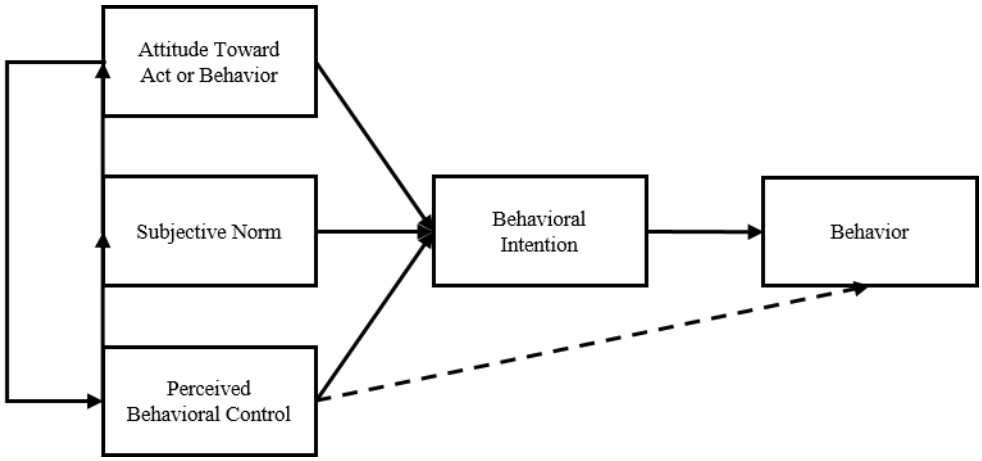

Figure (2-2): Causal diagram of the basic factors of the theory of planned behavior.

Thus, whenever a person has total control in a situation over his/her action, behavioral intentions are enough to predict behavior. Conversely, in situations where behavioral intentions would account for only a limited amount of difference in behavior, perceived behavioral control (PBC) should be autonomously a predictive factor of behavior.

According to the theory of planned behavior, both perceived behavioral control and intentions are essential to predict behavior. However, one factor might be more significant than the other depending on the occurrence of certain conditions and situations. As a result, in circumstances

where expectation of behavior from intentions is expectedly deterred by voluntary control, perceived behavioral control should enable the application of behavioral intentions on action, as well as anticipate behavior directly (Armitage & Conner, 2001). Therefore, PBC and behavioral intention, can be utilized directly or indirectly to predict behavior accomplishment.

According to Ajzen (1985), the realization of any trial to complete a behavioral plan is determined by the efforts provided and the person's volitional control over factors such as abilities, required information, skills, opportunity, availability of a practical plan, willpower, and so forth. Correspondingly, successful implementation of behavior depends both on a positive intention to engage in the behavior as well as on an appropriate level of behavioral voluntary control, which includes perceived and actual controls.

Finally, as PBC signifies peoples' belief in their abilities to perform a certain behavior, and considering that perception is dependent on the existence of a number of factors that impact this perception (weighted by the power of each factor), then this perception/belief, if accurate, would reflect the actual behavioral control (Ajzen, 2002).

2.1.3 The Decomposed Theory of Planned Behavior

In 1995, Taylor and Todd developed a further theory considered as an extension of the theory of planned behavior. In their research, they proposed to decompose the factors of the theory of planned behavior into detailed constructs, such as perceived usefulness to the individual, efficacy and influence of peers and superiors (Taylor & Todd, 1995) (Figure 2-3). They coined this theory as the decomposed theory of planned behavior (DTPB).

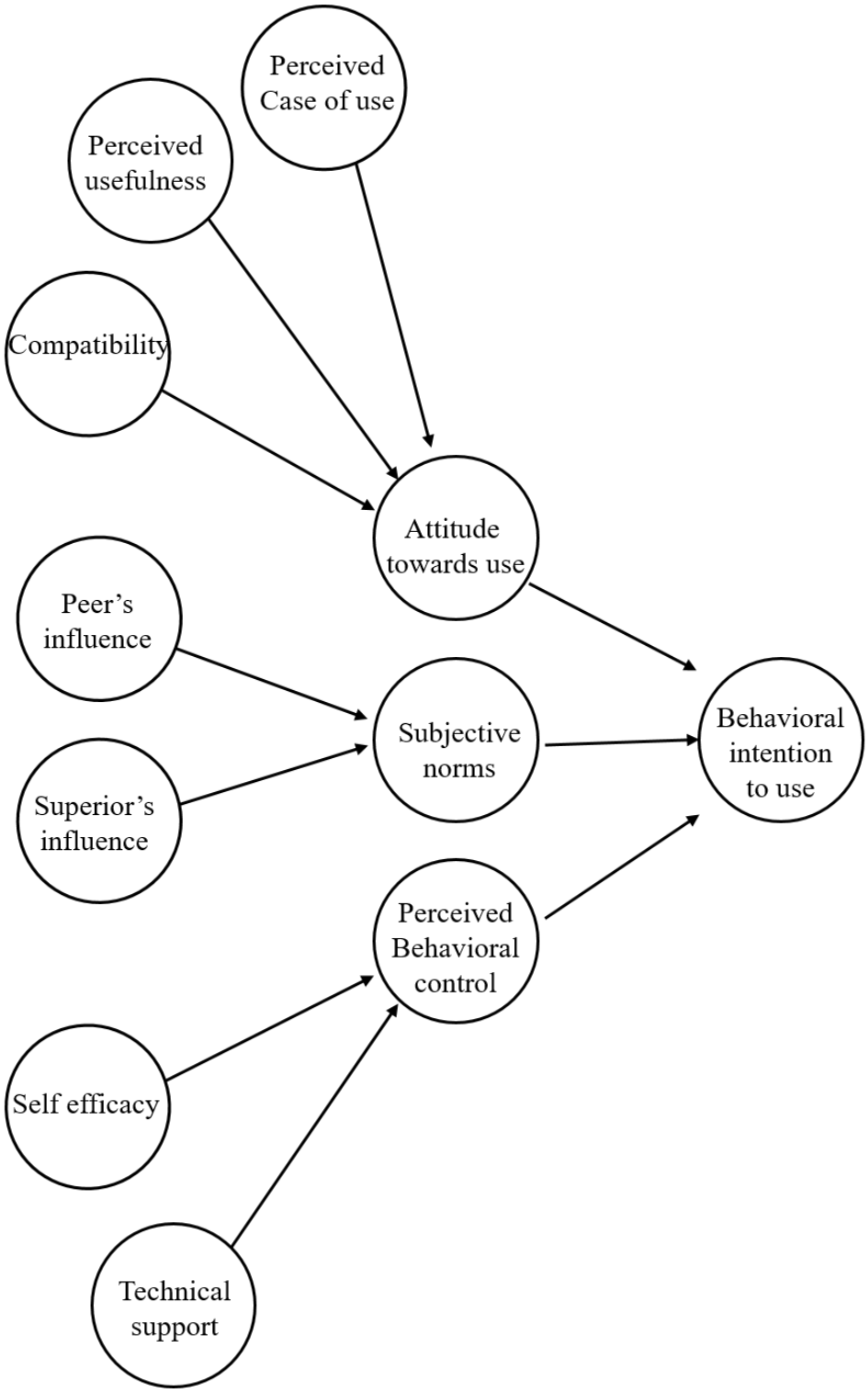

Figure (2-3): Causal diagram of the decomposed theory of planned behavior.

The aim of Taylor and Todd's research was to examine the usefulness of the theory of reasoned actions, theory of planned behavior and decomposed theory of planned behavior as predictors of

customer behavior. The researchers concluded the former two theories are able to predict behavior. However, it was the latter theory that was deemed best at explaining that behavior. They recommend the application of DTPB as an instrument to influence certain features of behavior that administrators might need to modify via marketing strategies and systems design.

2.1.4 The Technology Acceptance Model

Another addition of the theory of reasoned action is the technology acceptance model (TAM) introduced by Davis in 1986 (Davis, 1986). The goal of TAM is to give an explanation of the determinants of computer acceptance amongst users. TAM suggests that the consequence of external variables on intention is by perceived value, referring to the level to which a person believes that using a specific system would improve his/her job performance; and perceived ease of use, referring to the level to which a person believes that using a specific system would be effort-free (Figure 2-4).

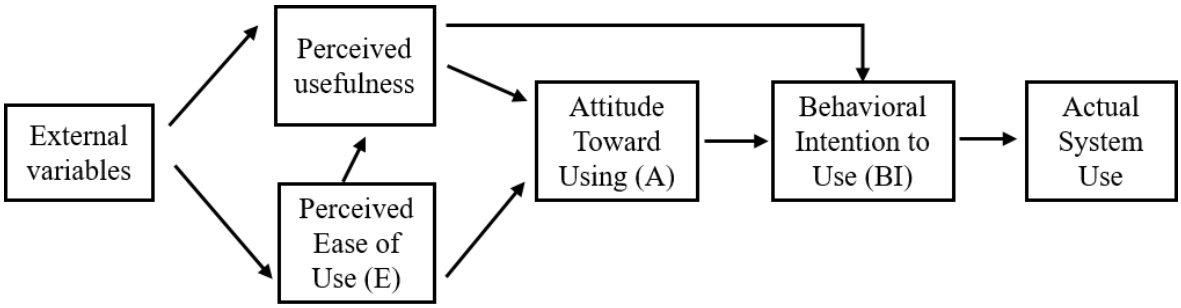

Figure (2-4): Causal diagram of the technology acceptance model.

The technology acceptance model postulates that perceived value is affected by ease of use since, other things being equivalent; the easier a technology to use is more helpful it will be. Simultaneously Theory of Reasoned Action, Technology Acceptance Model suggests that external variables effect on intentions is moderated by perceived ease of use and perceived usefulness.

Venkatesh and Davis extended the original Technology Acceptance Model in order to explain perceived usefulness as well as usage intentions in terms of cognitive instrumental processes and social influence (Venkatesh & Davis, 2000). Their theory is occasionally referred to as Technology Acceptance Model 2. This model contains additional theoretical elements covering social influence processes (voluntariness, image and subjective norm) and cognitive instrumental processes (output quality, result demonstrability, job relevance and perceived ease of use).

In a successive study, Venkatsh, Speier and Moris reanalyzed the data from both earlier studies to develop an integrated model of technology acceptance. The integration intended to extend the knowledge through amalgamating core concepts of technology acceptance as well as motivational models and investigating them longitudinally; by perceiving the role of training interventions and pre-training, "User Acceptance Enablers" or (UAEs) as referred to by authors, throughout the context of the integrated model; and, empirically exploring the new model as to compare its explanatory power along with the already existing models (Venkatsh *et al*, 2002). In this model, training interventions was brought to light, where it was suggested that technology providers could, as a matter of fact, affect usage behavior of clients through influencing their intentions and their will to use the suggested technology.

Venkatesh and Davis extended the original TAM model to explain perceived usefulness and usage intentions in terms of social influence and cognitive instrumental processes (Venkatesh & Davis, 2000). Their theory is sometimes referred to as TAM2. This model incorporates additional theoretical constructs covering social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use) (Figure 2-5).

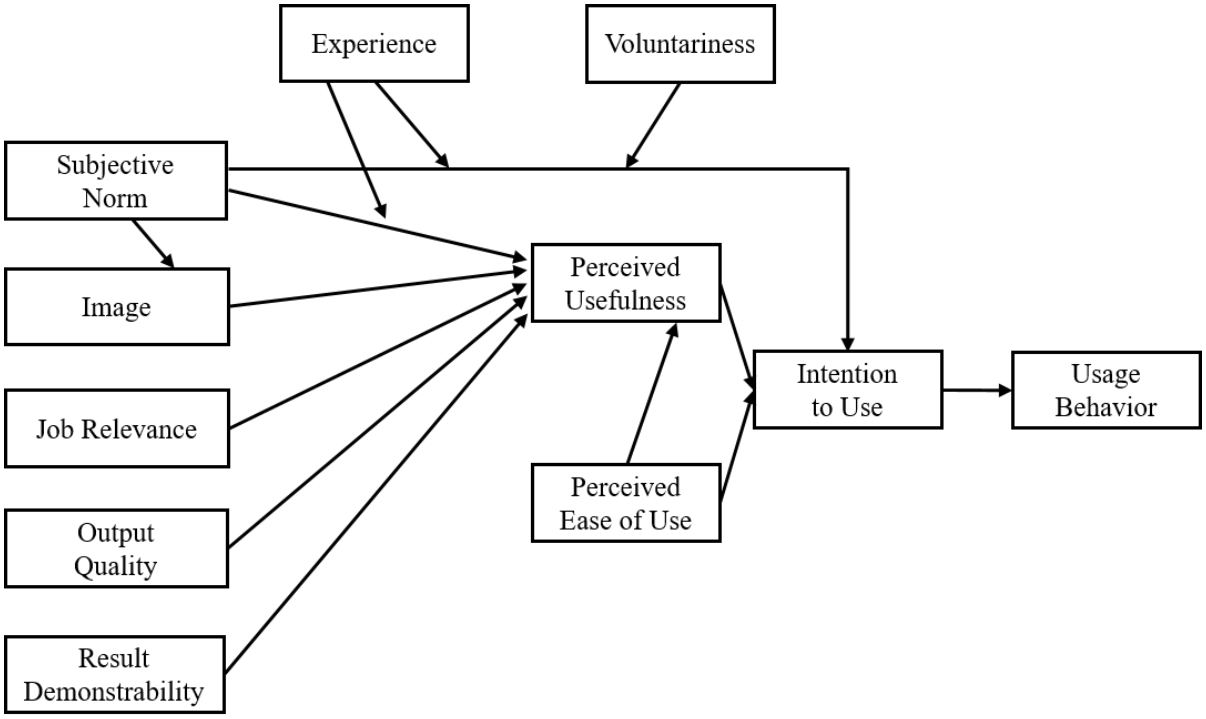

Figure (2-5): Causal diagram of the extended technology acceptance model (TAM2).

2.1.5 Diffusion of Innovations Theory

The diffusion of innovations theory (DOI) was developed by Rogers in 1983. He suggested that the different stages of adoption of new technology (innovation), and respectively the various types of adopters based on the different features of the technology. According to this theory, diffusion is a distinct category of communication dealing with the dissemination of messages that are perceived as innovative ideas. Innovative ideas hold a degree of uncertainty and therefore are seen as risky. A person can reduce this uncertainty by getting information. Thus, information is a modification in matter-energy that influences uncertainty in a situation where a preferred alternative occurs amongst a group of alternatives. Furthermore, the diffusion of innovations theory

recognizes multiple factors that expedite or impede technology adoption and implementation (Rogers, 2003).

Rogers defined diffusion as "the process by which an innovation is communicated through certain channels over a period of time among the members of a social system". He further defined innovation as "an idea, practice, or object that is perceived to be new by an individual or another unit of adoption". He also defined communication as "a process in which participants create and share information with one another to reach mutual understanding" (Rogers, 1995).

The communication theory assists researchers in explaining the reason of communication while the diffusion theory focuses on the settings that increase or decrease the probability that people in a certain culture will adopt an innovative/new idea, practice or product. The main constructs of the diffusion theory are social systems, innovation, time and communication channels. These elements aids to explain the innovation-decision process. More specifically, these constructs together would assist a customer to accept or reject a certain product or idea. The diffusion theory can be utilized to explain more than just communication. It can as well be applied to several aspects with regards to innovations.

The beginning of the diffusion process starts with an innovation. Next, the communication channel is the how messages disseminate from one person to another. The time element is involved in diffusion as the person passes first realization of an innovation into adoption or rejection. Additionally, time reflects the relative lateness /earliness the innovation is adopted in comparison to others in society. The element of social system is defined as a group of interconnected units that are involved in common problem solving to achieve a mutual goal (Rogers, 1955). The last element is of

paramount importance in explaining the adoption of new technology in various cultures, and is the founding basis for conducting research on national and international levels.

Figure (2-6) depicts the four elements of DOI over time through the communication channels in what is called “The Innovation-Decision Process”. This process that happen over five stages. The innovation, is the reason the whole process started. The first stage is knowledge. The following stages over time represent the transition from adoption of the innovation by the innovator then early adopters then late adopters. They also depict acceptance versus rejection of the innovation, as well as adoption following an initial phase of rejection or vice versa. These stages are grouped into antecedents, process and consequences.

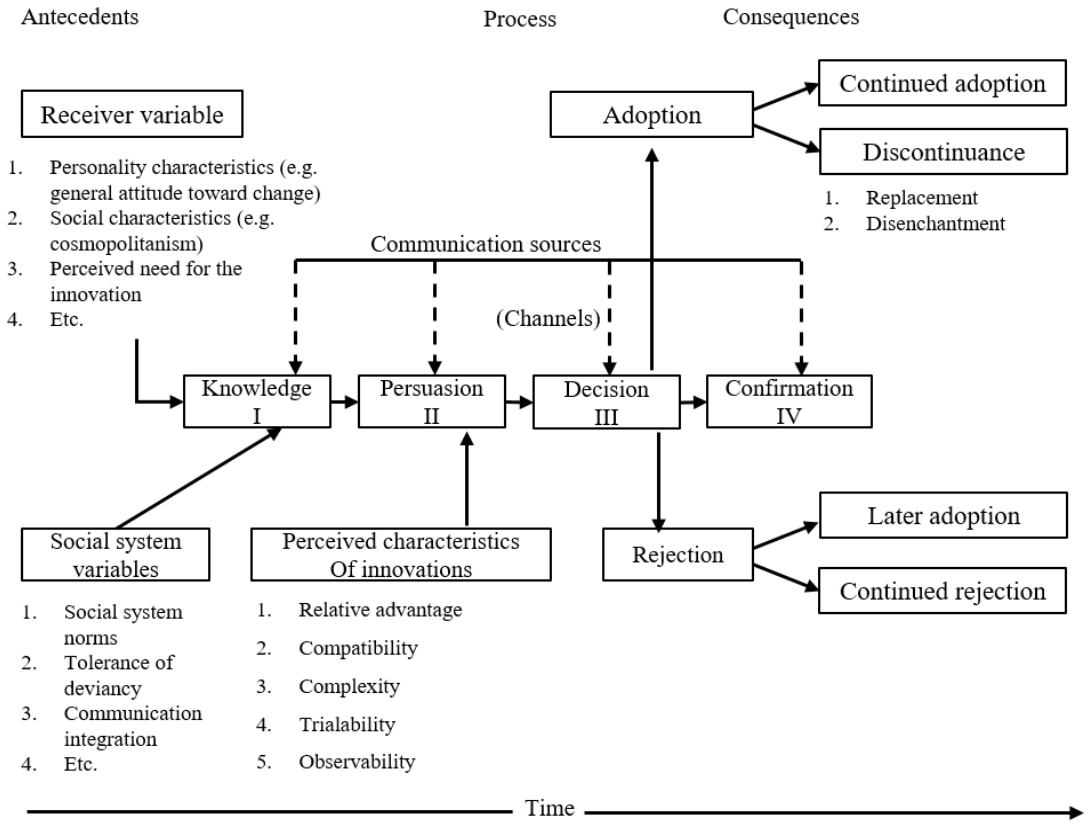

Figure (2-6): The innovation-decision process over time.

2.1.6 The Social Cognitive Theory

The social cognitive theory (SCT) was developed based on its predecessor the social learning theory (SLT). The latter was introduced in 1941 by Miller and Dollard. In their work, they proposed the principle of learning through "Models" by way of their article on Social Learning and Imitation. The theory suggests that when an individual observes a model engaging in a certain behavior, and he/she takes note of the consequences of that particular behavior, they recall the sequence of events and utilize this information to drive subsequent behaviors. Figure (2-7) shows the factors responsible for determining human behavior according to the social cognitive theory.

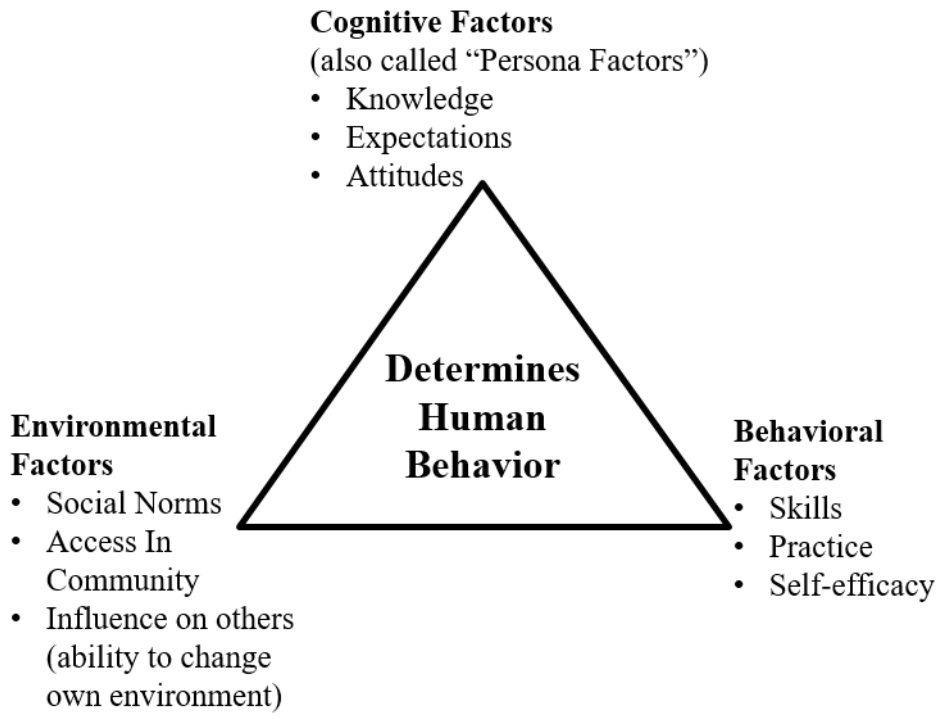

Figure (2-7): The tenants of the social cognitive theory.

The social cognitive theory is used in education, communication and psychology. It embraces that parts of an individual's knowledge acquisition could be linked directly to

perceiving others within the perspective of experiences, social interactions, and outside media influences. The theory suggests that when people perceive a model executing a behavior and the significances of that behavior, they recollect the sequence of events and then use this information as to guide succeeding actions. Observing a model may as well encourage the viewer to participate in a behavior they already learned. In other words, individuals do not acquire new behaviors merely by trying them and either failing or succeeding, but rather, the persistence of humanity is reliant on the repetition of others actions. Depending if people are punished or rewarded for their actions and the result of the behavior, the observer could choose to reproduce modeled behavior. Media offers models for a vast range of people in many various environmental settings.

Social cognitive theory mainly revolves concerning the process of knowledge procurement or learning directly associated to the models observation. The models can either be of media sources or an interpersonal imitation. Effective modeling teaches common rules as well as approaches for dealing with different conditions.

2.1.7 Self-Determination Theory

Self-determination theory (SDT) is a theory of human nature and motivation. It discusses people's intrinsic growth tendencies and inherent psychological needs. The SDT is concerned with the motivation that drives individuals' choices made without external influence or interventions. This theory focuses on the level to which a person's behavior is self-determined and therefore self-motivated.

The self-determination theory proposes that individuals have innate human needs of:

- **Competence** which includes recognizing how to obtain several external and internal outcomes while being efficient in performing the required actions;

- **Relatedness** which includes acquiring secure and satisfying relationships with other individuals in the social surroundings; and
- **Autonomy** (or self-determination) which signifies being self-initiating and self-regulating of their own actions.

Therefore, the satisfaction of such needs leads to the idea of people being motivated (as opposed to amotivated). Figure (2-8) shows the innate human needs as suggested by the self-determination theory.

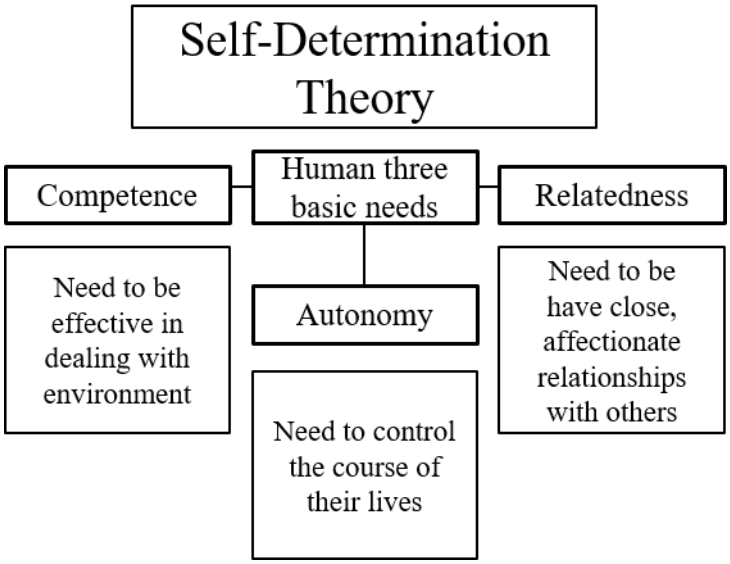

Figure (2-8): Human basic needs according to the self-determination theory.

The self-determination theory (SDT) was developed by Deci and Ryan in 1985 (Deci & Ryan, 1985). They suggested that self-determination is a human trait that comprises "the experience of choice, having choices and making choices". According to the SDT, the different types of motivation, namely external motivation, internal motivation and amotivation, have different types of regulation that can be organized through a self-determination continuum (Figure 2-9). Internal motivation (IM) has intrinsic regulation, amotivation (AM) has no regulation, while external motivation (EM) has four forms of regulation: external, identified, introjected and integrated.

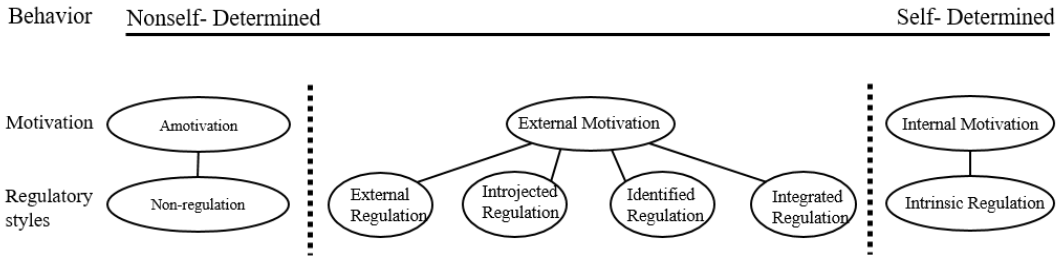

Figure (2-9): The self-determination continuum with forms of motivation regulation.

2.1.8 The Motivational Model

Over the years, researchers have tried to elucidate the driving force that causes people to do certain deeds or refrain from others. This has resulted in a huge amount of research and many theories that attempt to explain "motivation". In business, motivation theories are of paramount importance to help managers achieve maximum efficiency from their employees, and to influence customers' behavior into adoption of their products or services. In general, most motivation model theories agree on the causal diagram presented in figure (2-10) below.

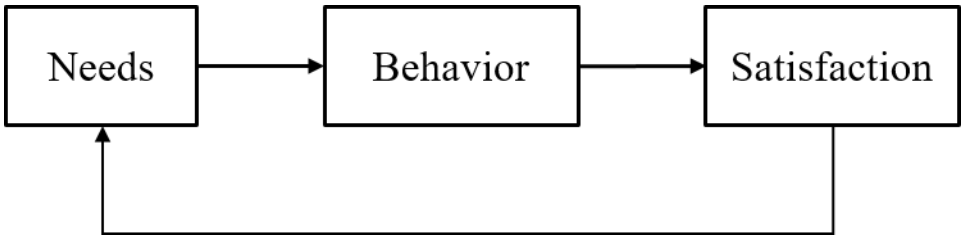

Figure (2-10): A general diagram of motivation model.

Human behavior is either intrinsically or extrinsically motivated. The motivation model (MM) theorizes that motivation must be studied from multidimensional perspectives. These are the intrinsic motivation (IM), extrinsic motivation, and amotivation (AM). Intrinsically motivated behaviors represent those behaviors people engage in for the satisfaction derived from doing them without anticipation of material reward. Conversely, extrinsically motivated behaviors include those people are engaged in as means to an end and not for their own sakes (Vallerand and Bissonnette, 1992).

Vallerand suggested several tenants that are fundamental to the hierarchical model (Figure 2-11) (Vallerand, 1997). The first points out that all types of motivations, IM, EM, and AM, play a central role in peoples' psychological processes. Consequently, all of them should be tested when measuring motivation. Further, the second element states that all three motivations are found in every individual at the various levels of global, contextual and situational factors. The third postulate suggests that motivation results from two bases: environmental conditions and social factors.

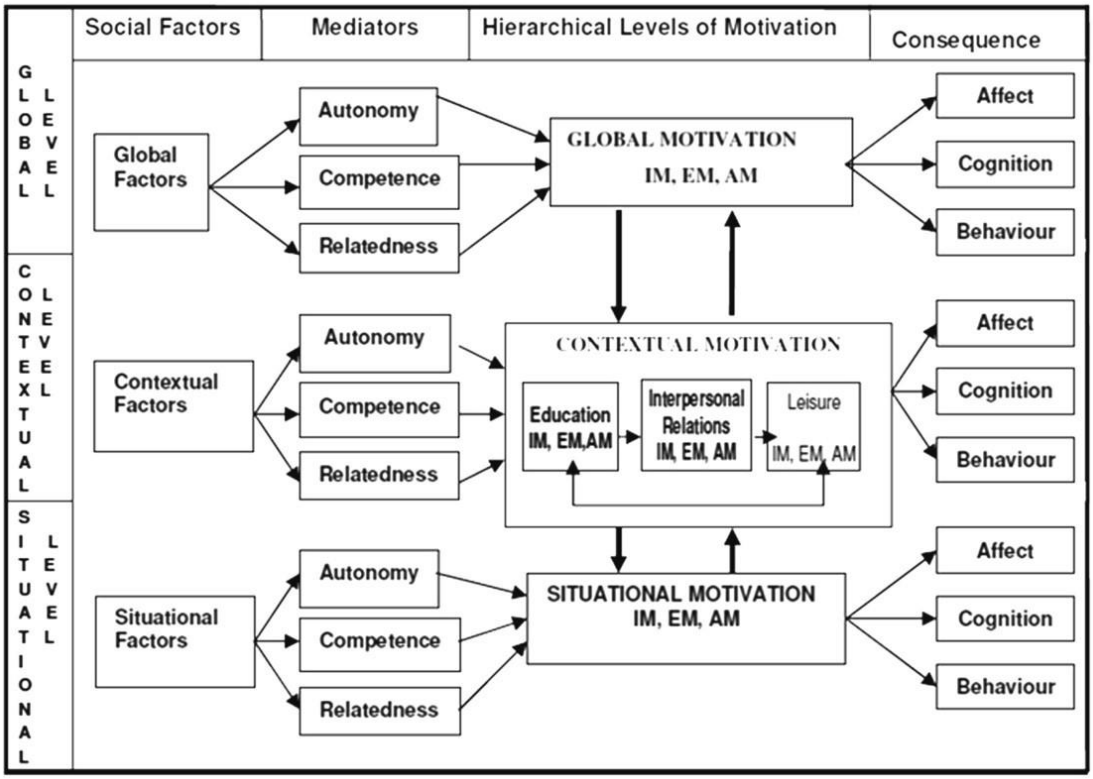

Figure (2-11): The hierarchical model of motivation.

Vallerand also postulated that the influence of social factors is moderated at each level by perceptions of the three basic human needs suggested by the self-determination theory, namely; competence, autonomy, and relatedness. Furthermore, he suggested that motivation results in multiple consequences on the behavioral, cognitive, and affective levels (Vallerand, 2001).

Several researchers tested the motivational model on acceptance and use of technology. Davis and colleagues used a technology acceptance motivation model o that they based on Deci and Ryan's intrinsic and extrinsic motivations to use computers in the workplace (Davis et al, 1992). They concluded that motivation is an important factor behind individuals' intention to adopt technology usage.

In a sense, extrinsic motivation to adopt a technology in work is reinforced by anticipated reward, such as a promotion, provided that said technology is thought to be useful in accomplishing the goals of the job. On the other hand, intrinsic motivation to use technology takes into consideration the enjoyment of using the technology irrespective of the performance outcome obtainable.

Their findings showed that people's intentions to use computers at the workplace were affected primarily by their perceptions of the usefulness of computers in enhancing their job performance, and to a lesser extent by the level of enjoyment they experience when using them. Of note, however, is that the positive correlation noted between usefulness and enjoyment indicated that enjoyment would have a greater influence on intentions when technology is perceived to be more useful. Additionally, enhancing the enjoyability of a system would enhance the acceptance of useful systems, but would have less of an effect on acceptance of less useful systems (Davis et al., 1992).

2.1.9 The Model of Personal Computer Utilization

Thompson and colleagues (1991) have created a preliminary test for a personal computer (PC) use model (Thompson *et al*, 1991). In this model they have created, it is implied that the PC's utilization would be swayed by individuals' feelings regarding using PCs, behaviors, social norms, the expected consequences, as well as the facilitating conditions. In this test, the social factors direct effects have been examined, along with facilitating conditions on behavior, and perceived consequences. The model was named "The model of PC utilization (MPCU)" (Figure 2-12).

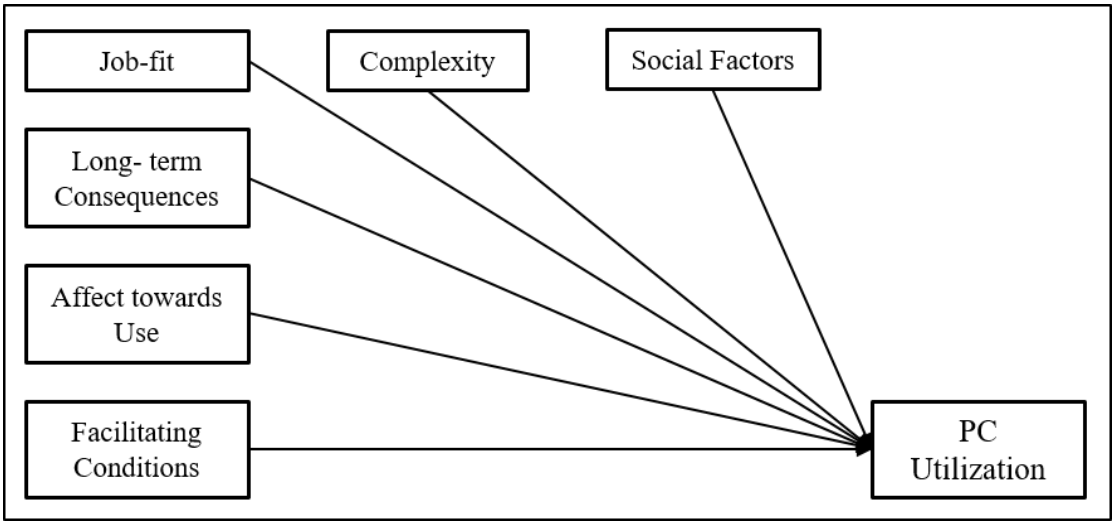

Figure (2-12): Constructs of the model of personal computer utilization.

In 1994, they incorporated the element of personal computer usage experience into their model. The researchers proposed that experience would have direct indirect and moderating effects on personal computer utilization. Figure (2-13) shows the relationships proposed in their extended model.

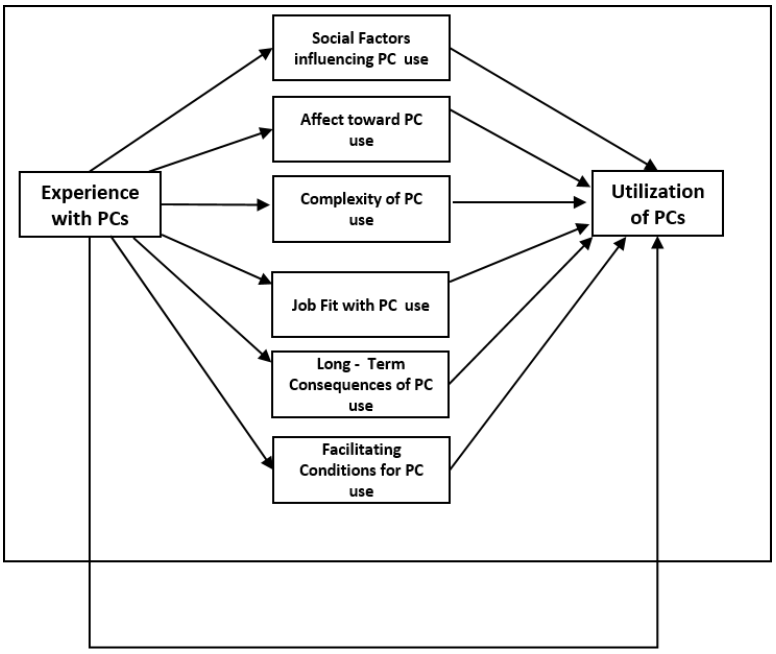

Figure (2-13): Factors affecting personal computer utilization.

2.1.10 Model of Technology Appropriation

The model of technology appropriation (MTA) was introduced by Carroll and colleagues in 2002. They aimed to understand the process of appropriation customers use to evaluate, adopt and technology over time. They also considered how design and use of technology interact (Figure 2-14).

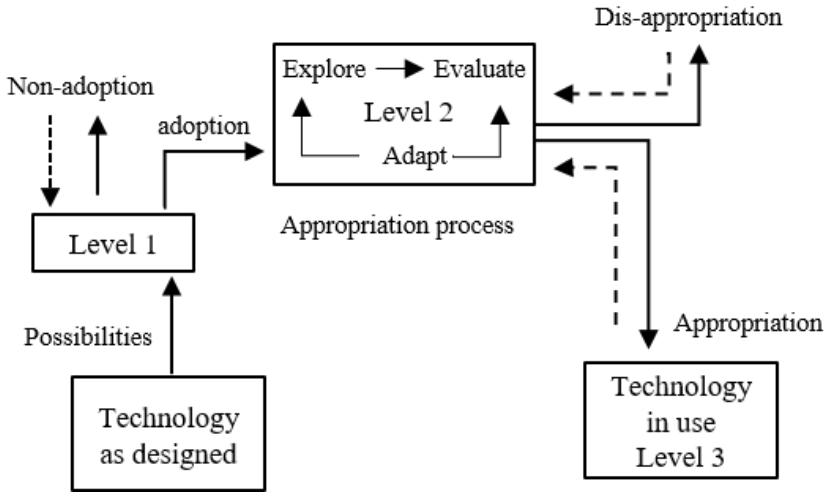

Figure (2-14): The process of described in the model of technology appropriation.

The MTA was planned to be a general model of technology appropriation. It can be custom-made for particular technologies and user cohorts (Carroll, 2004). It has been employed to support in describing the appropriation of mobile phones, bibliographic software, Short Messaging Service (SMS), email, customer relationship management software, open source software and a learning management system (Mendoza et al., 2007; Nor Zairah & Rose Alinda, 2007). Throughout the process of appropriation various effects shape the attitudes and behaviors of users towards the technology.

In the model there are three levels of assessment that correspond with different phases of the appropriation process (Carroll et al., 2002). As can be seen in figure (2-14), when first meeting a technology during the primary exposure phase, users are challenged with the technology as planned by its designer, or ‘technology as designed’, which ‘has features,

abilities and an underlying theory or spirit' about how the technology should be employed. From the users' view, the technology presents a variety of potentials for addressing their particular concerns, which might or might not align with those acknowledged by the designers. During users' initial exposure to the technology a chain of influences shapes their evaluations and decisions whether or not to adopt the technology. In the case of an information system, influences on users might include the graphical user interface and system functionality. The result of this level-one evaluation is the establishment of definite expectations about what the technology can deliver, which leads to either non-adoption or the user selecting to persist with exploring the technology thereby continuing the appropriation process.

At the next phase of the appropriation process users estimate the technology more deeply through exploring and using the technology (level-two evaluation) (Carroll, 2004; Herszfeld et al., 2003). They come to learn how the technology can support their performance through the provision of specific functionality. As users explore and learn about the technology they also adapt their practices linked with the technology as well as adapting the technology itself. During this adaptation phase there is again a range of influences that serves to encourage or discourage continued appropriation.

In the final phase, a state of appropriation or stabilization is reached, whereby the practices around the use of the technology become routine, and no further modifications to the technology occur (Carroll, 2004). The technology becomes integrated with work practices, is part of users' taken-for-granted experience of work, and is just another part of the work landscape, referred to as 'technology in use'. It is throughout this phase that the design can be said to be fixed, although this might not be temporary (Mendoza et al., 2005). The state of appropriation is kept as long as users' ongoing evaluation of the

'technology in use' continues to reinforce persistent use. The particular shapes of use that users settle on are expected to vary across individuals.

2.1.11 The Unified Theory of Acceptance and Use of Technology

The huge amount of research conducted on models of technology acceptance created some confusion amongst researchers. They were compelled to choose from a wide range of models put forward to explain consumer behavior towards technology. In response, efforts to harmonize technology acceptance models literature were led by Venkatesh and colleagues in the early twenty first century. They developed a unified model that would combine multiple views on the subject.

The Unified Theory of Acceptance and Use of Technology (UTAUT) is considered one of the most famous frameworks in the area of technology acceptance models. Consistent with earlier acceptance models, the UTAUT aimed to explain user intentions to use a given technology and as a result the usage behavior (Venkatesh et al., 2003). In essence, this theory was developed as a synthesized model to reflect a more comprehensive picture of the acceptance process than any previous individual models.

Venkatesh et al. (2003) studied and compared the eight dominant models, which have been used in explaining technology acceptance behavior. These models included the theory of reasoned actions (TRA), technology acceptance model (TAM), theory of planned behavior (TPB), diffusion of innovation theory (DOI), combined theory of planned behavior and technology acceptance model (TPB/TAM), motivation model (MM), social cognitive theory (SCT), and model of personal computer use (MPCU) (discussed above). The authors have reported five main limitations of prior model comparisons and tests conducted and addressed them in their work. It was concluded that the technologies studied were individual-oriented and modest as opposed to sophisticated and complex organizational technology, students were the majority of participants in the

studies excluding few of these studies, the overall time of measurement was general for most studies well after rejection or acceptance of the usage decisions so individuals' reactions were retrospective, the nature of measurement was in general cross-sectional, and a great part of the studies were conducted in voluntary procedure contexts, which made it somewhat difficult to generalize results into mandatory settings.

The constructs in the model were defined and related to similar variables in the eight models as follows: Performance Expectancy (PE) that is the level an individual trusts that using the system will help in attaining gains in their job performance. This concept, for each individual model, was the sturdiest predictor of intention, which remained significant throughout all points of measurement, for both mandatory and voluntary settings. Effort Expectancy (EE) that is the level of ease accompanied with the use of the system. The construct concerning each individual model was highly indicative concerning both previously mentioned settings, and as expected from the literature it was also significant during the post training measurement only. Social Influence (SI) that is the level to where an individual perceives how important others believe they should be using the new system. Facilitating Conditions (FC) that is the level to where an individual trusts that the support of the system would depend on organizational and technical infrastructure. Figure (2-15) depicts a diagrammatical representation of the UTAUT.

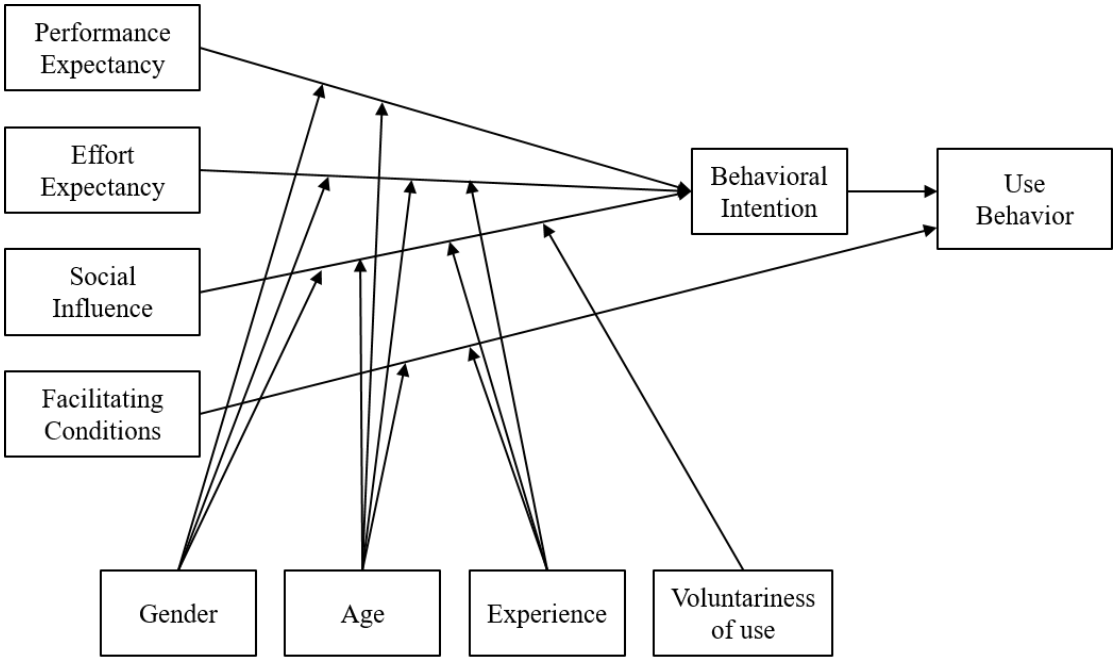

Figure (2-15): Diagram summarizing factors included in the UTAUT

Furthermore, the UTAUT model endeavors to rationalize how individual differences affect the use of technology. More specifically, the relationship between perceived efficiency, perceived ease of use, and intention to actually use a certain technology can be moderated by experience, age and gender (Venkatesh et al., 2003). The UTAUT has four indicators of behavioral intention: performance expectancy, effort expectancy, social influence and facilitating conditions. These constructs were defined as follows:

- Performance expectancy (PE): "is the degree to which an individual believes that using the system will help him or her to attain gains in job performance."
- Effort expectancy (EE): "is the degree of ease associated with use of the system."
- Social influence (SI): "is the degree to which an individual perceives that [it is] important others believe he or she should use the new system."

- Facilitating conditions (FC): “is the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system.”

Performance expectancy (PE) in the UTAUT model stems from a combination of five similar constructs, including perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations. Performance expectancy was found to be the strongest predictor of intention among the individual models Vinkatesh et al reviewed. Further, they found it significant at all points for both voluntary as well as obligatory circumstances.

Effort expectancy (EE) originates from the constructs of perceived ease of use and complexity. Ease of use is generally assumed to possess a significant effect on technology acceptance. Effort expectancy was found to be significant in both voluntary and obligatory usage settings during validation.

Social influence (SI) considers the perception of the opinion of others, such as the individual's culture, specific agreements with others, as well as the level to which the use of a given technology is perceived to improve one’s image or repute in the social system (Venkatesh et al., 2003). This incorporates constructs from earlier models such as subjective norm, and social factors.

Facilitating conditions (FC) embodies organizational support. It includes the constructs of perceived behavioral control, facilitating conditions, and compatibility from previous models.

Finally, Vinkatesh et al reported that the UTAUT model was able to explain 70 percent of the variance in behavioral intention to use a given technology. This is a considerably

high percentage as it supersedes all those of original models, in which the maximum was 40 percent.

2.1.12 Electronic Payments (E-Payments)

Electronic payment is a subgroup of an electronic commerce operation to include electronic payment for purchasing and/or vending goods or services accessible through the Internet. Generally we think of electronic payments as referring to online transactions on the internet, there are actually many forms of electronic payments. It has been suggested that a system of e-commerce payment expedites the adoption of electronic payment for on-line dealings. An e-commerce payment systems is recognized as a subset of Electronic Data Interchange (EDI). These systems have become progressively popular because of the prevalent use of the internet-based banking and shopping.

As early as 1999, Weiner stated that the United States payment system was becoming more electronic (Weiner, 1999). He showed that all types of e-payments were trending upwards. At that time, checks were the preferable form of non-cash payments in the US. In 2016, Koulayev et al reported that checks are still the payment of choice for non-cash payments, followed by credit cards (Koulayev *et al*, 2016). Today, e-commerce continues to have a profound impact on the global business environment.

Several models of technology acceptance were applied to e-payments. Rigopoulos and Askounis used the technology acceptance model to evaluate users' perceptions towards online electronic payments (Rigopoulos & Askounis, 2007). They reported that TAM is capable of explaining user behavior within financial domains. Chen applied the Technology Acceptance Model (TAM) and the Innovation Diffusion Theory (IDT) to explain consumer acceptance of mobile payment, as a subset of e-payments (Chen, 2008).

The author reports that significant support for the model was found in the data collected from the survey performed. He concluded that understanding the determinants of consumer acceptance of e-payment would provide important theoretical contributions to the field and lead to the development of more effective e-payment devices and systems. Zhou and colleagues combined the unified theory of acceptance and usage of technology (UTAUT) and the task technology fit (TTF) model to develop a mobile banking user adoption model (Zhou *et al*, 2010). They showed that performance expectancy, task technology fit, social influence, and facilitating conditions have substantial impact on user adoption. In 2013, Slade and colleagues used an extended form of the UTAUT to explore consumer adoption of mobile payments in the United Kingdom (Slade *et al*, 2013). They pointed out that literature on the subject is still in its infancy and no empirical research relating to this has been conducted in the context of the UK to that point. They recommended further application of the UTAUT to electronic payments.

2.1.13 Current Status in Jordan (eFAWATEERcom as an example)

eFAWATEERcom is an electronic system of presenting and paying bills owned by the Central Bank of Jordan and operated by Madfooatcom for Electronic Payments. Using this system, one would be able to pick the time and place you want to pay your bills through versatile list of payment channels that include ATMs, Tellers, Mobile and Online Banking services, Jordan's post offices, along with a number of trusted centers in Carrefour, Safeway and others. Besides that, one would be able to use www.efawateercom.jo to pay your bills 24/7 via credit cards.

In 2014, eFAWATEERcom settled itself as the ideal choice of online payment for wide segment of Jordanian people applying to variety of businesses from individuals, companies, digital organizations and governmental institutions

(www.eFAWATEERcom.jo). This quick-witted system has been developed to improve the transactions processing performance that it measured over 250,000 transactions performed with total of 156 Million Jordanian Dinars of the financial operations from the date service was launched.

In Jordan, few studies looked at factors related to e-payments in Jordan. The first study in Jordan to tackle the subject was in 2013 by Al-Maaitah (Al-Maaitah, 2013). His study focused on investigating the risk factors associated with e-payments in Jordan. It was before launching e-payment services in Jordan that started its work in 2014. Al-Shbiel and Ahmad integrated both TAM and TPB theories to develop a model studying electronic banking in Jordan (Al-Shbiel & Ahmad, 2016). Their article presented a literature review and theoretical description of the model proposed.

Al-Majali and Bashabsheh looked at factors that affect commercial banks customers towards electronic payments in Jordan (Al-Majali & Bashabsheh, 2016). In their study the authors studied the effects of relative advantages, simplicity, security, consciousness and individual skills on customers' intentions to use e-payments. They concluded that customers tended to use e-payments mainly due to the latter four factors, but not the former one. However, their work was based on a self-developed model that was not validated horizontally or vertically. Additionally, they applied their model in Karak Governorate, and therefore, it was difficult to over-generalize the results of the study on the rest of the governorates in Jordan due to different factors: economical, cultural and social between Karak and Amman.

2.2 Previous Studies

1. Al-Debei & Shannak (2005) study titled: **"The current state of e-commerce in Jordan: Applicability and future prospects. This study aimed at determining the current**

state of e-commerce in Jordan, as well as its future prospects". The study population contained all Jordanian industrial, service companies and trade companies that own a registered website. The size of the population consisted of 712 companies. Randomly picked companies were distributed a total of 118 questionnaires, 95 of which were returned. The research showed that Jordan in general has adequate and competent e-commerce requirements. However, there is not a suitable and proper Community Culture in order to achieve E-commerce Readiness Stage.

2. AbuShanab & Pearson (2007) study titled: **"Internet banking in Jordan: The unified theory of acceptance and use of technology (UTAUT) perspective"**. The main goal of this research is to explore the key determinants of embracing internet banking in Jordan. This paper also tries to validate the appropriateness of the Unified Theory of Acceptance and Use of Technology (UTAUT) within the context of internet banking. Based on past work in the fields of technology acceptance and internet banking a survey was developed and distributed through three various banks in Jordan to randomly picked customers entering the main office of each bank. Multiple regressions were used to assess the collected data. The study's results indicate that Unified Theory of Acceptance and Use of Technology provide proper foundation for the future technology acceptance research. This study's main predictors (performance expectancy, effort expectancy, and social influence) were substantial and clarified a significant volume of the variance in expecting a customer's purpose to adopt internet banking. Indication that gender moderated the relationships between the three independent variables and the dependent variable (behavioral intention) were also seen in the results of the study.

3. Rigopoulos & Askounis (2007) study titled: "**A TAM framework to evaluate user's perception towards online electronic payments**" In this study the authors exhibited a revised Technology Acceptance Model for determining users' attitude in regards to online electronic payments adoption. The authors present the model developed, along with initial

results from a related questionnaire at a Greek bank's target users group. The study reported that Technology Acceptance Model has the ability of explaining customer behavior in financial domains.

4. AlAwadhi & Morris (2008) study titled: **"The Use of the UTAUT Model in the Adoption of E-government Services in Kuwait".** This paper adopted the unified of acceptance and use of technology (UTAUT) model to study factors, which determine the adoption of e-government services in a growing and a developing country, namely Kuwait. Using an amended version of the unified of acceptance and use of technology model, 880 students were surveyed. The empirical data point out that performance expectancy, effort expectancy, and peer influence determine the behavioral intention of students. Additionally, facilitating conditions and behavioral intentions govern the students' use of e-government services. Furthermore, Implications for decision makers, as well as, suggestions for further research are likewise taken into consideration throughout this study.

5. Chen (2008) study titled: "**A model of consumer acceptance of mobile payment**" Through expanding the Technology Acceptance Model (TAM) and the Innovation Diffusion Theory (IDT), this paper proposes a research model, which examines the factors that govern consumer acceptance of m-payment. Substantial support for the model was observed in the data collected of a 299 sample survey of possible m-payment users.

6. Al Nagi & Hamdan (2009) study titled: **"Computerization and e-Government implementation in Jordan: Challenges, obstacles and successes".** A readiness research for Jordan as well as implementation and achievements have been accomplished in Jordanian e-Government. The paper concluded that it is becoming an inevitable existence in most of our lives, even though it has initially faced some resistance. As a result, building an information-based society became a priority in Jordan. The country is following various strategies to achieve this goal, and thus far it is doing well in this job.

By developing its Information and Communication Technology infrastructure, legislation, human resources, and several other entities, Jordan has successfully indulged in the information age.

7. Zhou et al (2010) study titled: **"Integrating TTF and UTAUT to explain mobile banking user adoption**" Through integrating the task technology fit model and the unified theory of acceptance and usage of technology, this study offers a mobile banking user adoption model. This paper found that performance expectancy, social influence, task technology fit, and facilitating conditions have substantial effects on user adoption. Additionally, the authors also found a substantial effect of task technology fit on performance expectancy.

8. Yu (2012) study titled: **"Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model."** The authors employed the Unified Theory of Acceptance and Use of Technology to examine what influences people to adopt mobile banking. By sampling 441 respondents, this paper empirically observed that individual intention to adopt mobile banking was considerably swayed by social influence, performance expectancy, perceived financial cost, and perceived credibility, in their order of affecting strength. The behavior was significantly affected by facilitating conditions and individual intention. As for moderating effects of gender and age, the research revealed that gender significantly moderated the effects of performance expectancy and perceived financial cost on behavioral intention, and the age significantly moderated the effects of facilitating conditions and perceived self-efficacy on real adoption behavior.

9. Al-maaitah (2013) study titled: "**Security concerns in E-payment and the law in Jordan**". The paper debates electronic payments in Jordan through a legal perspective and what surrounds it of security concerns.

10. Slade et al (2013) study titled: "**Extending UTAT2 to explore consumer adoption of mobile payments**" Following a broad research of the literature, this paper finds that 186 relationships between dependent and independent variables analyzed by 32 existing empirical m-banking and m-payment adoption studies. Through these relationships analysis, the most major factors found to impact adoption are uncovered and an extension of Unified Theory of Acceptance and Use of Technology 2 with the addition of apparent risk and trust is suggested to increase the applicability of Unified Theory of Acceptance and Use of Technology 2 to the m-payment context.

11. Solomon *et al* (2013) study titled: **"Identifying factors that determine intention to use electronic banking: a conceptual study".** The study reviews the literature on TAM and validates this model's use to explore the factors influencing to the extent of client's adoption of electronic banking transactions. The theoretical study proposes 20 research hypotheses derived from former models of online banking users. This paper explored the factors associated to decision making when people consider using online banking transactions. Financial security, trust, information quality, time and money (both considered as adoption benefits) were observed to expect potential usage. That is customers willingness to use and adopt the online banking system will be probable if organizations are able to build trust relationships with individuals, guarantee them that all their financial details are far from being compromised, well secure, accurate and up-to-date, provide information that is relevant and save users time and money.

12. Allada & Dubey (2014) study titled: **"Investigating the online banking customer satisfaction model under the controlled effect of demographic variables".** The main goal of this paper is to examine the online banking client satisfaction model within the influence of control variables. The study has embraced literature review approach to recognize online banking client satisfaction variables to develop an organized questionnaire for leading further survey. The questionnaire was pretested in Southern-

Western area of India with 50 experts beforehand final survey. A total of 600 surveys have been distributed. Finally 453 properly filled surveys have been returned moving the response rate to 75.5%. The multivariate statistics analysis has additionally reduced data into 9 parsimonious and orthogonal factors that were used as illustrating variables for determining client satisfaction among online-banking, through controlling the influence of demographic profiles age, income on a monthly basis and educational qualification's effect on client satisfaction.

13. Gao & Bai (2014) study titled: **"A unified perspective on the factors influencing consumer acceptance of internet of things technology"**. Based on technology acceptance model, the authors suggested an acceptance model that comprises of 3 technology aspects (perceived usefulness, perceived ease of use, and trust); one social context aspect (social influence); and 2 individual customer characteristics (perceived behavioral control and perceived enjoyment). Data from 368 Chinese users were used in testing the research model with the use of structural equation modeling. Results of the study presented strong support for the effects of perceived ease of use, perceived usefulness, social influence, perceived behavioral control, and perceived enjoyment. However, trust did not play a significant role in predicting the intention. Moreover, perceived ease of use and trust were found to influence perceived usefulness.

14. Yuen *et al* (2015) study titled: **"Internet banking acceptance in the United States and Malaysia: a cross-cultural examination".** The authors used the UTAUT model, along with 4 added variables (attitude towards use, self-efficacy, perceived credibility, and anxiety), a survey was established based on the research model and was distributed to 1,050 internet banking users from 2 different countries. Results have shown that because of cultural differences, global users have diverse internet banking adoption ways. Users in the USA possess a more positive attitude about its use. Furthermore, perceived credibility plays a significant role in affecting internet banking in the USA. On the other

hand, in Malaysia, performance expectancy is influenced directly on internet banking adoption.

15. Al-Majali & Bashabsheh (2016) study titled: **"Factors that affect commercial banks customers' intention towards electronic payment services in Jordan"**. The purpose of this research is to identify the factors affecting and impacting commercial banks client's' intention to electronic payment services in (AL-Karak) region, Jordan. To achieve the purpose of the study, the authors developed a questionnaire to explore the influence of the independent variables (simplicity, security, consciousness, relative advantages and self-efficacy) on the dependent variables (the clients' intention to E-payment services). A total of 600 questionnaires have been distributed with 543 returned as valid for the final analysis having a response rate of 90.5%. This paper's results indicate an acceptance to 4 hypotheses correlated to the influence of security, consciousness, self-efficacy and simplicity continually.

16. Al-Shbiel & Ahmad (2016) study titled: **"A theoretical discussion of electronic banking in Jordan by integrating technology acceptance model and theory of planned behavior"**. The main purpose of this study is to provide a theoretical discussion in regards to Electronic Banking in Jordan through Integrating technology acceptance model and theory of planned behavior model, and identify the factors influencing the acceptance of E-Banking in Jordan. The authors developed a theoretical model depending on an integration of TAM and TPB model with self-efficacy, perceived trust and enjoyment.

17. Apanasevic *et al* (2016) study titled: **"Stakeholders' expectations of mobile payment in retail: lessons from Sweden".** In this study a qualitative case study for the stakeholders' expectations was used. The conceptual study framework is founded on the technology adoption model, the theory of diffusion of innovations, and network externalities. The framework was tested as well as validated by empirical findings. One

of the main findings of the study highpoints that mobile payment service acceptance depends on the capability of mobile payment providers to establish networks of both customers and retailers simultaneously. Stakeholders' attention would be attracted by the service if it meets their expectations in the best way possible. Additional finding was that mobile payment services are not meeting expectations on an improved purchasing process. This would be the field for future service improvement.

18. Barkhordari *et al* (2016) study titled: **"Factors influencing adoption of e-payment systems: an empirical study on Iranian customers"**. This research presents an experimental study on important factors impacting trust in e-payments systems in Iran. Potentially determinant influences of trust is developed and organized in 3 main groups: access to security guidelines, technical and transaction procedures, and usability. The direct influence of the factors on perceived trust, alongside with their indirect influence through perceived security, is assessed in an empirical study. The data was collected from various clients of several banks in Iran. This study found that both trust and perceived security govern a positive impact for using e-payment systems. The results claim on transaction and technical procedures, as well as access to security guidelines as being the most affecting influencing factors on perceived trust of customers. The study findings are also compared to results of similar recent studies. The outcomes provide decision makers a guideline for developing proper solutions, which encourages the adoption of e-payment systems.

19. Tan & Lau (2016) study with the title of: **"Behavioural intention to adopt mobile banking among the millennial generation".** The paper studied responses from a certain group of Generation Y customers that is university or college students. The sample collected was 347 cases, indicating a response rate of 90.4%. Two types of analyses were applied: multiple regression analyses examining the extended unified theory of acceptance and use of technology model alongside with a mediated regression analysis

examining the intervening effect of performance expectancy (PE) on the relationship between behavioral intention and effort expectancy (EE). Multiple regression analysis proposes PE as the dominant predictor, then (EE), social influence and perceived risk. The prediction model clarified 68.3% of the variance are willing to use mobile banking. Mediation analysis maintained a partial mediation influence of (PE) on the relationship between (EE) and willingness to use mobile banking.

20. Tarhini *et al* (2016) study with title of: **"Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon: A structural equation modeling approach"**. A conceptual framework was invented through extending the (UTAUT) by integrating two additional factors; task-technology fit (TTF) and perceived credibility (PC). A quantitative methodology based on cross-sectional study was used to gather data from 408 IB customers. The outcome of the structural path shown that performance expectancy (PE), TTF, PC and social influence are significant predictors in manipulating customers' behavioral intention to utilize internet-banking and clarified 61% of its variance, while PE was found to be the strongest antecedent of BI. Different than UTAUT, the influence of effort expectancy on BI was minor. Furthermore, both BI and facilitating conditions were identified to be affecting the actual usage behavior and explained 64% of its variance.

Chapter Three

Methodology

Chapter Three

3.1 Study Methodology

The first part of this study was descriptive. Data was collected and analyzed to test the study hypotheses. The researcher utilized a questionnaire to analyze it and to get needed information for empirical proposes. The second part of the study was analytical using statistical analysis. The researcher aimed to analyze the relationship between variables. Finally, the researcher compared the results of this study with previous work of others.

3.2 Study Unit of Analysis

The survey was distributed to a random sample of Jordanian citizens who are customers of commercial banks in Jordan.

3.3 Study Population and Sample

The main target group was all Jordanian commercial banks' customers, as the researcher is a banker who is very much interested in the subject matter herein. Since the whole population is difficult to determine, a convenient representative sample was aimed at. In order to have sufficient statistical power.

3.4 Study Tools

Data collection was done through both primary and secondary sources. The secondary data was collected from books, journals, previous research, dissertations, articles, and papers. Primary data was collected using a questionnaire survey. The questionnaire was employed to assess the acceptance of Jordanians of e-payments, more specifically

eFAWATEERcom. Survey questions were presented as statements to which participating individuals indicated their agreement/disagreement on a 5-point Likert scale.

The questionnaire survey was developed based on elements of the Unified Theory of Acceptance and Use of Technology model to address customers' acceptance and use of eFAWATEERcom. Additionally, the researcher incorporated two elements that previous literature considers very important when studying electronic transactions; these are perceived security of the electronic tool and the customer's trust in that tool and its support.

The questionnaire was developed in many steps to reflect content validity as assessed by a panel of experts, and stability and consistency across both languages (English and Arabic)

3.5 Study Variables

Independent variables:

1. Performance expectancy

2. Effort expectancy

3. Social influence

4. Facilitating conditions

5. Trust

6. Perceived Security

Dependent variable:

Intention to use eFAWATEERcom

Moderators

Age

Gender

3.6 Study Procedures

The questionnaires were distributed between the period of March 5th and April 6th, 2017. Two approaches were employed; paper-based and electronic-based. For the former method, the questionnaire was printed out on papers and the researcher targeted leading commercial banks in Jordan to distribute it. Respondents were asked to be as accurate as possible and were given ample time to complete the survey.

As for the latter approach, a specialized website was utilized. The website is "www.surveymonkey.com". The link for the questionnaire was distributed using social media such as whatsapp, facebook and twitter. Participants were asked to fill out one copy of the questionnaire and forward the link to their acquaintances asking them to fill it out. This particular website was used as it keeps track of IP addresses of equipment used to fill the questionnaire and prevents users from filling the questionnaire again. The author therefore guaranteed lack of duplication in responses.

3.7 Statistical Analysis

Data analysis was performed using statistical package for social sciences software version 22 (SPSS v.22)

3.7.1 Reliability

A reliability analysis was done using Cronbach's Alpha test. Reliability scores were expressed numerically as a coefficient. A coefficient score of 1.00 means a test is

perfectly reliable. A coefficient of not less than 0.70 is required to indicate an acceptable degree of reliability. Prior to commencement of the actual study, a small pilot was performed to determine reliability and check if any statements should be modified. As such, the questionnaire was distributed to a random sample of 30 people. Finally, the test was also repeated for the whole sample. Additionally, item deletion and recalculation of Chronbach's alpha was performed to check if the coefficient score would be higher with deletion of each item.

3.7.2 Internal Consistency

Internal consistency was assessed by calculating Pearson's correlation coefficient (r) between statements measuring the same construct. The result was considered significant at $r \leq 0.05$ and highly significant at $r \leq 0.01$.

3.7.3 Descriptive Statistics and Priority Levels

For all items, the means and standard deviations were calculated. Priority level was determined based on the following formula:

$$\frac{\text{Maximum value of response} - \text{Minimum value of response}}{\text{Number of priority levels}} = \frac{5-1}{3} = 1.33$$

Based on the above formula, priority level was set at high if the construct mean response was 3.68 or higher; medium if the mean response was between 2.34 and 3.67; and low if the mean response was 2.33 or lower.

3.7.4 Hypotheses Testing (Regression Analysis)

Simple regression was performed to test the effect of each independent variable on the dependent variable. Multiple linear regression test was used to determine the effect of all independent variables on the dependent variable, with collinearity test. The latter was performed to confirm that multiple linear regression can be applied to the sample. Hierarchical multiple regression analysis was used to analyze the effect of each moderator on variables relationships.

Chapter Four

Results

Chapter Four

4.1 Study Tool Development and Content Validity

The first version of the questionnaire (Appendix 2) was developed in English as the UTAUT elements were originally validated in English. For each construct, four statements were synthesized. This version was distributed to academic reviewers from the Middle East University, University of Jordan and Al-Israa University to validate the data collection tool. Reviewers provided feedback regarding readability, format, and ability to measure the study's constructs (content validity).

The questionnaire instrument was updated to reflect the comments and suggestions received by the experts (Appendix 3). As the mother tongue language in Jordan is Arabic, and therefore respondents would give more accurate results if the questionnaire was in Arabic, the researcher hired a professional translator to translate the questionnaire into Arabic (Appendix 4).

Linguistic validation of the questionnaire was done through the process of back translation. For that purpose, the Arabic version was given to another bi-lingual translator who was not exposed to the original English test and asked to translate it into English (Appendix 5). Finally, the two versions were compared and minor modifications were done to reflect accurate translation (Appendix 6). This version was the one utilized throughout the study.

4.2 Demographic Data, Sample Distribution and Related Knowledge

A total of 500 questionnaires were received either electronically or via paper-based format. Of these, 22 questionnaires were rejected due to incomplete responses. The first question of the survey was to check whether or not the respondent has information

about eFAWATEERcom. If the answer was "NO", the respondent was asked to stop and not complete the survey. Accordingly, 86 participants answered that they were not familiar with eFAWATEERcom. Therefore the total number of questionnaires analyzed was 392, which was higher than the calculated sample size required.

4.2.1 Demographic Data

Of the total 392 respondents, a sum of 210 stated they were users of eFAWATEERcom, with a percentage of 53.6% of the total. The remaining 182 respondents (46.4) said they were not users. Table (4-1) shows these distributions.

Table (4-1): Percentages of eFAWATEERcom users.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	210	53.6	53.6	53.6
	No	182	46.4	46.4	100.0
	Total	392	100.0	100.0	

A percentage of 49.5% of the sample were females and 50.5% were males (Table 4-2), showing equal distribution of the questionnaire among both genders.

Table (4-2): Distribution of Sample by Gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	194	49.5	49.5	49.5
	Male	198	50.5	50.5	100.0
	Total	392	100.0	100.0	

Most of the respondents were either single (52.3%) or married (47.2%). Table (4-3) shows the distribution of sample by marital status group.

Table (4-3): Distribution of Sample by Marital Status.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	205	52.3	52.3	52.3
	Married	185	47.2	47.2	99.5
	Divorced / Separated	2	.5	.5	100.0
	Total	392	100.0	100.0	

The ages of respondents ranged across all groups, but most were between 21 and 40 years (Table 4-4).

Table (4-4): Distribution of Sample by Age Group.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 or less	2	.5	.5	.5
	21- 30	222	56.6	56.6	57.1
	31- 40	121	30.9	30.9	88.0
	41 -50	32	8.2	8.2	96.2
	51- 60	9	2.3	2.3	98.5
	61 or more	6	1.5	1.5	100.0
	Total	392	100.0	100.0	

Similarly, the level of education and type of employment ranged across all groups (Table 4-5 and Table 4-6, respectively).

Table (4-5): Distribution of Sample by Level of Education.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school & below	9	2.3	2.3	2.3
	Diploma	26	6.6	6.6	8.9
	Bachelor	278	70.9	70.9	79.8
	Master's degree	69	17.6	17.6	97.4
	PhD	10	2.6	2.6	100.0
	Total	392	100.0	100.0	

Table (4-6): Distribution of Sample by Type of Employment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not working	26	6.6	6.6	6.6
	Public sector	32	8.2	8.2	14.8
	Private Sector	310	79.1	79.1	93.9
	Free lancing	24	6.1	6.1	100.0
	Total	392	100.0	100.0	

The sample was almost homogenously distributed among all household monthly income brackets (Table 4-7).

Table (4-7): Distribution of Sample by Household Monthly Income Bracket.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under JD500	48	12.2	12.2	12.2
	JD501 – 749	66	16.8	16.8	29.1
	JD750 -999	50	12.8	12.8	41.8
	JD1000 – 1499	81	20.7	20.7	62.5
	JD1500 – 1999	56	14.3	14.3	76.8
	JD2000+	91	23.2	23.2	100.0
	Total	392	100.0	100.0	

4.2.2 Related Knowledge

Respondents were asked to rate their knowledge of the electronic payment system eFAWATEERcom. Most of them (33.4%) rated this knowledge as good, and 28.3% rated their knowledge as moderate (Table 4-8).

Table (4-8): Respondents' Self-Reported Knowledge of eFAWATEERcom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	20	5.1	5.1	5.1
	poor	68	17.3	17.3	22.4
	moderate	111	28.3	28.3	50.8
	good	131	33.4	33.4	84.2
	very good	62	15.8	15.8	100.0
	Total	392	100.0	100.0	

Two types of related knowledge were tested; the first being direct knowledge obtained from the individual's bank and the second was their computer and internet experience. Respondents were asked to state how long have had a bank account, and the quantity and quality of information regarding eFAWATEERcom provided their banks. It was noteworthy that most respondents seemed to be satisfied with the amount of data provided (Table 4-9), as well as the bank's knowledge (Table 4-10) and quality of data provided (Table 4-11).

Table (4-9): Respondents' View on the Amount of Data Provided by their Banks about eFAWATEERcom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	32	8.2	8.2	8.2
	Poor	43	11.0	11.0	19.1
	moderate	113	28.8	28.8	48.0
	Good	128	32.7	32.7	80.6
	very good	76	19.4	19.4	100.0
	Total	392	100.0	100.0	

Table (4-10): Respondents' View on their Banks about eFAWATEERcom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	11	2.8	2.8	2.8
	Poor	31	7.9	7.9	10.7
	moderate	110	28.1	28.1	38.8
	Good	143	36.5	36.5	75.3
	very good	97	24.7	24.7	100.0
	Total	392	100.0	100.0	

Table (4-11): Respondents' View on the Quality of Data Provided by their Banks about eFAWATEERcom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	24	6.1	6.1	6.1
	Poor	45	11.5	11.5	17.6
	moderate	98	25.0	25.0	42.6
	Good	140	35.7	35.7	78.3
	very good	85	21.7	21.7	100.0
	Total	392	100.0	100.0	

Respondents' computer and internet knowledge was assessed through asking them to report how well they perceive their computer knowledge and internet knowledge. Most of the respondents stated they have very good computer as well as internet knowledge (Table 4-12 and Table 4-13, respectively).

Table (4-12): Respondents' Self-Reported Computer Knowledge.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	4	1.0	1.0	1.0
	moderate	23	5.9	5.9	6.9
	Good	91	23.2	23.2	30.1
	very good	274	69.9	69.9	100.0
	Total	392	100.0	100.0	

Table (4-13): Respondents' Self-Reported Internet Knowledge.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	moderate	24	6.1	6.1	6.1
	Good	83	21.2	21.2	27.3
	very good	285	72.7	72.7	100.0
	Total	392	100.0	100.0	

Respondents were also asked to estimate how many times per day they use the internet and what is the most common tool they use to access the internet. Most of them stated they use the internet more than 10 time a day and mostly through their cellular phones (Table 4-14 and Table 4-15, respectively).

Table (4-14): Respondents' Self-Reported Internet Use Frequency per Day.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2-5 times	19	4.8	4.8	4.8
	5-10 times	47	12.0	12.0	16.8
	more than 10 times	326	83.2	83.2	100.0
	Total	392	100.0	100.0	

Table (4-15): Respondents' Self-Reported Main Tool for Internet Use.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cellular Phone	272	69.4	69.4	69.4
	Laptop	71	18.1	18.1	87.5
	PC	39	9.9	9.9	97.4
	Tablet or iPad	10	2.6	2.6	100.0
	Total	392	100.0	100.0	

4.3 Reliability and Internal Consistency

4.3.1 Reliability

Chronbach's alpha coefficient was calculated for the entire questionnaire to assess reliability of the tool. It was found to be 0.944. This indicated that the questionnaire had a high level of reliability. Further, Chronbach's alpha coefficient was calculated with deleting each item sequentially. Table (4-16) shows Chronbach's alpha for each construct.

Table (4-16): Chronbach's alpha for each construct.

Construct	Chronbach's alpha
Performance Expectancy	0.916
Effort Expectancy	0.941
Social Influence	0.958
Facilitating Conditions	0.942
Trust	0.942
Perceived Security	0.942
Intention to Use	0.941

4.3.2 Internal Consistency

To check the internal consistency among the different statements measuring the constructs, Pearson's coefficient of correlation was calculated for each two items measuring a certain construct together, as well as for each item with the construct itself. All coefficients (except for only two items measuring the construct of social influence) showed either a significant or a highly significant positive correlation with each other and with the constructs they were measuring.

4.4 Descriptive Analysis and Priority Levels

Table (4-17) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Performance Expectancy. The means of responses for items ranged between 4.21 and 4.29 and the standard deviation ranged between 0.693 and 0.796. All items showed a high level of priority. Additionally, the mean for the whole construct was 4.25 and the standard deviation was 0.665.

Table (4-17): Descriptive Analysis and Priority Level of the Construct Performance Expectancy.

No.	Item	Mean	Standard deviation	Priority Level
1	I find eFAWATEERcom useful	4.29	.693	High
2	Using eFAWATEERcom enables me to accomplish paying bills more quickly	4.26	.796	High
3	Using eFAWATEERcom increases the effective use of my time in handling bills	4.27	.795	High
4	Using eFAWATEERcom increases the quality of my banking services output at minimal efforts	4.21	.776	High
	Performance Expectancy (whole scale)	4.25	.665	High

Table (4-18) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Effort Expectancy. The means of responses for items ranged between 3.74 and 3.95 and the standard deviation ranged between 0.845 and 1.074. All items showed a high level of priority. Additionally, the mean for the whole construct was 3.82 and the standard deviation was 0.768.

Table (4-18): Descriptive Analysis and Priority Level of the Construct Effort Expectancy.

No.	Item	Mean	Standard deviation	Priority Level
1	My interaction with eFAWATEERcom is clear and understandable	3.74	.882	High
2	I am skilful at using eFAWATEERcom	3.82	1.074	High
3	Learning to use the eFAWATEERcom system is easy for me	3.95	.845	High
4	I find it easy to get the eFAWATEERcom system to do what I want it to do	3.75	.874	High
	Effort Expectancy (whole scale)	3.82	.768	High

Table (4-19) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Social Influence. The means of responses for items ranged between 3.44 and 3.58 and the standard deviation ranged between 0.901 and 0.972. All items showed a medium level of priority. Additionally, the mean for the whole construct was 3.50 and the standard deviation was 0.654.

Table (4-19): Descriptive Analysis and Priority Level of the Construct Social Influence.

No.	Item	Mean	Standard deviation	Priority Level
1	People who are important to me think that I should use eFAWATEERcom	3.46	.942	Medium
2	People who influence my behavior think I should use eFAWATEERcom	3.44	.914	Medium
3	The bank staff are helpful in the use of eFAWATEERcom	3.54	.901	Medium
4	The bank encourages the use of eFAWATEERcom	3.58	.972	Medium
	Social Influence (whole scale)	3.50	.654	Medium

Table (4-20) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Facilitating Conditions. The means of responses for items ranged between 3.49 and 3.67 and the standard deviation ranged between 0.825 and 0.890. All items showed a medium level of priority. Additionally, the mean for the whole construct was 3.58 and the standard deviation was 0.706.

Table (4-20): Descriptive Analysis and Priority Level of the Construct Facilitating Conditions

No.	Item	Mean	Standard deviation	Priority Level
1	When I need help to use eFAWATEERcom, someone is there to help me	3.49	.876	Medium
2	I am given helpful and useful instructions on using eFAWATEERcom	3.52	.825	Medium
3	The eFAWATEERcom system is organized and clear	3.67	.872	Medium
4	I have the knowledge necessary to use eFAWATEERcom	3.64	.980	Medium
	Facilitating Conditions (whole scale)	3.58	.706	Medium

Table (4-21) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Trust. The means of responses for items ranged between 3.68 and 3.95 and the standard deviation ranged between 0.697 and 0.930. All items showed a high level of priority. Additionally, the mean for the whole construct was 3.85 and the standard deviation was 0.633.

Table (4-21): Descriptive Analysis and Priority Level of the Construct Trust.

No.	Item	Mean	Standard deviation	Priority Level
1	I believe that eFAWATEERcom is trustworthy	3.93	.772	High
2	Even if not monitored, I am certain that eFAWATEERcom will do the right job	3.68	.930	High
3	I do not doubt the honesty of eFAWATEERcom	3.87	.749	High
4	eFAWATEERcom has the ability to fulfill the proper tasks	3.95	.697	High
	Trust (whole scale)	3.85	.633	High

Table (4-22) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Perceived Security. The means of responses for items ranged between 3.70 and 4.03 and the standard deviation ranged between 0.792 and 0.884. All items showed a high level of priority. Additionally, the mean for the whole construct was 3.82 and the standard deviation was 0.692.

Table (4-22): Descriptive Analysis and Priority Level of the Construct Perceived Security.

No.	Item	Mean	Standard deviation	Priority Level
1	I feel assured that there are adequate technological structures to protect me from problems with eFAWATEERcom	3.74	.792	High
2	I believe my transactions through eFAWATEERcom are likely to be secure	3.81	.829	High
3	The bank will inform me if there are problems with my transactions	3.70	.884	High
4	I believe eFAWATEERcom authorizes transactions from my account only if requested by me	4.03	.813	High
	Perceived Security (whole scale)	3.82	.692	High

Table (4-23) below shows the means, standard deviations and priority levels for responses to each item measuring the construct Behavioral Intention. The means of responses for items ranged between 3.93 and 4.27 and the standard deviation ranged between 0.648 and 0.866. All items showed a high level of priority. Additionally, the mean for the whole construct was 4.06 and the standard deviation was 0.648.

Table (4-23): Descriptive Analysis and Priority Level of the Construct Behavioral Intention.

No.	Item	Mean	Standard deviation	Priority Level
1	I intend to use eFAWATEERcom in the future	4.27	.648	High
2	I recommend the use of eFAWATEERcom to others	4.11	.763	High
3	I am glad to use eFAWATEERcom	3.95	.806	High
4	I would rather that all my monetary transactions are through eFAWATEERcom	3.93	.866	High
	Behavioral Intention (whole scale)	4.06	.648	High

4.5 Hypotheses Testing

Two main hypotheses were put forward in this study, both of which have several sub-hypotheses stemming from them. The first main hypothesis ($H_{0\text{-}1}$) has six sub-hypotheses; they will be regarded as $H_{0\text{-}1\text{-}1}$, $H_{0\text{-}1\text{-}2}$, $H_{0\text{-}1\text{-}3}$, $H_{0\text{-}1\text{-}4}$, $H_{0\text{-}1\text{-}5}$ and $H_{0\text{-}1\text{-}6}$. The alternate hypothesis of the first main hypothesis will be regarded as $H_{1\text{-}1}$, and its sub-hypotheses as $H_{1\text{-}1\text{-}1}$, $H_{1\text{-}1\text{-}2}$, $H_{1\text{-}1\text{-}3}$, $H_{1\text{-}1\text{-}4}$, $H_{1\text{-}1\text{-}5}$ and $H_{1\text{-}1\text{-}6}$.

The second main hypothesis ($H_{0\text{-}2}$) has two major sub-hypotheses; $H_{0\text{-}2a}$ and $H_{0\text{-}2b}$. The alternate hypothesis of the second main hypothesis will be regarded as $H_{1\text{-}2}$, and its main sub-hypotheses as $H_{1\text{-}2a}$ and $H_{1\text{-}2b}$.

4.5.1 First Main Hypothesis

$H_{0\text{-}1}$: The independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) will not significantly affect customers' intention to use eFAWATEERcom**.**

$H_{1\text{-}1}$: The independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) will significantly affect customers' intention to use eFAWATEERcom.

Multiple regression with analysis of variance approach (ANOVA) and collinearity were used to examine the above hypothesis. Analysis of variance approach (ANOVA) showed that independent variables statistically significantly predicted intention to use eFAWATEERcom ($F(6,385) = 76.389$, $p < 0.05$) (Table 4-24).

Table (4-24): ANOVA[a] for Multiple Linear Regression Analysis of the Effect of all Independent Variables on Intention to Use eFAWATEERcom.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89.332	6	14.889	76.389	.000[b]
	Residual	75.039	385	.195		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), PS, SI, EE, PE, FC, TR

Analysis also showed that the independent variables (predictors) do not have a collinearity problem as all Tolerance values were greater than 0.1 and variance inflation factor (VIF) values show that predictors are only moderately correlated (Table 4-25).

Table (4-25): Coefficients[a] and Collinearity Statistics for Multiple Linear Regression Analysis of the Effect of Independent Variables on Intention to Use eFAWATEERcom.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.394	.174		2.260	.024		
	PE	.294	.043	.302	6.837	.000	.608	1.644
	EE	.113	.041	.134	2.769	.006	.509	1.966
	SI	.162	.042	.163	3.891	.000	.674	1.485
	FC	.009	.047	.010	.192	.848	.460	2.175
	TR	.216	.055	.210	3.899	.000	.408	2.453
	PS	.146	.046	.156	3.209	.001	.499	2.003

a. Dependent Variable: BI

Table (4-25) also showed that the following formula can be used to predict BI:

$$BI = 0.394 + 0.294\,(PE) + 0.113\,(EE) + 0.162\,(SI) + 0.009\,(FC) + 0.216\,(TR) + 0.146\,(PS)$$

Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

4.5.2 Sub-hypotheses of the First Main Hypothesis

H0-1-1: There is no effect with statistical significance of Performance Expectancy (PE) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

H1-1-1: There is an effect with statistical significance of Performance Expectancy (PE) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

Simple linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis and it was found that simple correlation value (*R*) between PE and BI is 0.611 and that 37.3% of the variance in BI can be explained by PE, as shown in the model summery (Table 4-26). This indicates a good degree of correlation.

Table (4-26): Model Summery for Simple Linear Regression Analysis of the Effect of Performance Expectancy on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611[a]	.373	.371	.51412

a. Predictors: (Constant), PE

Analysis of variance approach (ANOVA) showed that PE has a statistically significant effect on BI ($F(1,390)= 231.865$, $p<0.05$), as shown in Table (4-27).

Table (4-27): ANOVA[a] for Simple Linear Regression Analysis of the Effect of Performance Expectancy on Behavioral Intention.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.286	1	61.286	231.865	.000[b]
	Residual	103.085	390	.264		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), PE

Analysis also showed that PE can be a good indicator of BI with high statistical significance (BI = 1.531 + 0.595 (PE)) (Table 4-28). Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

Table (4-28): Coefficients[a] for Simple Linear Regression Analysis of the Effect of Performance Expectancy on Behavioral Intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.531	.168		9.091	.000
	PE	.595	.039	.611	15.227	.000

a. Dependent Variable: BI

H0-1-2: There is no effect with statistical significance of Effort Expectancy (EE) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

H1-1-2: There is an effect with statistical significance of Effort Expectancy (EE) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

Simple linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis and it was found that simple correlation value (*R*) between EE and BI is 0.525 and that 27.6% of the variance in BI can be explained by EE, as shown in the model summery (Table 4-29). This indicates a good degree of correlation.

Table (4-29): Model Summery for Simple Linear Regression Analysis of the Effect of Effort Expectancy on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.525[a]	.276	.274	.55241

a. Predictors: (Constant), EE

Analysis of variance approach (ANOVA) showed that EE has a statistically significant effect on BI ($F(1,390) = 148.653$, $p<0.05$), as shown in Table (4-30).

Table (4-30): ANOVA[a] for Simple Linear Regression Analysis of the Effect of Effort Expectancy on Behavioral Intention.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	45.362	1	45.362	148.653	.000[b]
	Residual	119.009	390	.305		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), EE

Analysis also showed that EE can be a good indicator of BI with high statistical significance (BI = 2.374 + 0.443 (EE)) (Table 4-31). Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

Table (4-31): Coefficients[a] for Simple Linear Regression Analysis of the Effect of Performance Expectancy on Behavioral Intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.374	.142		16.772	.000

EE	.443	.036	.525	12.192	.000

a. Dependent Variable: BI

H0-1-3: There is no effect with statistical significance of Social Influence (SI) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

H1-1-3: There is an effect with statistical significance of Social Influence (SI) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

Simple linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis and it was found that simple correlation value (*R*) between SI and BI is 0.460 and that 21.1% of the variance in BI can be explained by SI, as shown in the model summery (Table 4-32). This indicates a good degree of correlation.

Table (4-32): Model Summery for Simple Linear Regression Analysis of the Effect of Social Influence on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.460[a]	.211	.209	.57655

a. Predictors: (Constant), SI

Analysis of variance approach (ANOVA) showed that SI has a statistically significant effect on BI ($F(1,390) = 104.483$, $p<0.05$), as shown in Table (4-33).

Table (4-33): ANOVA[a] for Simple Linear Regression Analysis of the Effect of Social Influence on Behavioral Intention.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	34.731	1	34.731	104.483	.000[b]
	Residual	129.640	390	.332		

Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), SI

Analysis also showed that SI can be a good indicator of BI with high statistical significance (BI = 2.469 + 0.456 (SI)) (Table 4-34). Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

Table (4-34): Coefficients[a] for Simple Linear Regression Analysis of the Effect of Social Influence on Behavioral Intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.469	.159		15.538	.000
	SI	.456	.045	.460	10.222	.000

a. Dependent Variable: BI

H0-1-4: There is no effect with statistical significance of Facilitating Conditions (FC) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

H1-1-4: There is an effect with statistical significance of Facilitating Conditions (FC) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

Simple linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis and it was found that simple correlation value (*R*) between FC and BI is 0.481 and that 23.1% of the variance in BI can be explained by FC, as shown in the model summery (Table 4-35). This indicates a good degree of correlation.

Table (4-35): Model Summery for Simple Linear Regression Analysis of the Effect of Performance Expectancy on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.481[a]	.231	.229	.56913

a. Predictors: (Constant), FC

Analysis of variance approach (ANOVA) showed that PI has a statistically significant effect on BI ($F(1,390)= 117.457$, $p<0.05$), as shown in Table (4-36).

Table (4-36): ANOVA[a] for Simple Linear Regression Analysis of the Effect of Facilitating Conditions on Behavioral Intention.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	38.046	1	38.046	117.457	.000[b]
	Residual	126.325	390	.324		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), FC

Analysis also showed that FC can be a good indicator of BI with high statistical significance (BI = 2.484 + 0.442 (FC)) (Table 4-37). Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

Table (4-37): Coefficients[a] for Simple Linear Regression Analysis of the Effect of Facilitating Conditions on Behavioral Intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.484	.149		16.699	.000

	FC	.442	.041	.481	10.838	.000

a. Dependent Variable: BI

H0-1-5: There is no effect with statistical significance of Trust (TR) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

H1-1-5: There is an effect with statistical significance of Trust (TR) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

Simple linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis and it was found that simple correlation value (*R*) between TR and BI is 0.602 and that 36.2% of the variance in BI can be explained by TR, as shown in the model summery (Table 4-38). This indicates a good degree of correlation.

Table (4-38): Model Summery for Simple Linear Regression Analysis of the Effect of Trust on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602[a]	.362	.361	.51842

a. Predictors: (Constant), TR

Analysis of variance approach (ANOVA) showed that TR has a statistically significant effect on BI ($F(1,390)= 221.601$, $p<0.05$), as shown in Table (4-39).

Table (4-39): ANOVA[a] for Simple Linear Regression Analysis of the Effect of Trust on Behavioral Intention.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59.556	1	59.556	221.601	.000[b]
	Residual	104.815	390	.269		

Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), TR

Analysis also showed that TR can be a good indicator of BI with high statistical significance (BI = 1.692 + 0.617 (TR)) (Table 4-40). Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

Table (4-40): Coefficients[a] for Simple Linear Regression Analysis of the Effect of Trust on Behavioral Intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.692	.162		10.466	.000
	TR	.617	.041	.602	14.886	.000

a. Dependent Variable: BI

H0-1-6: There is no effect with statistical significance of Perceived Security (PS) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

H1-1-6: There is an effect with statistical significance of Perceived Security (PS) on Behavioral Intention (BI) at significance level ($\alpha \leq 0.05$).

Simple linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis and it was found that simple correlation value (*R*) between

PS and BI is 0.528 and that 27.9% of the variance in BI can be explained by PS, as shown in the model summery (Table 4-41). This indicates a good degree of correlation.

Table (4-41): Model Summery for Simple Linear Regression Analysis of the Effect of Perceived Security on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.528[a]	.279	.277	.55119

a. Predictors: (Constant), PS

Analysis of variance approach (ANOVA) showed that PS has a statistically significant effect on BI ($F(1,390)= 151.029$, $p<0.05$), as shown in Table (4-42).

Table (4-42): ANOVA[a] for Simple Linear Regression Analysis of the Effect of Perceived Security on Behavioral Intention.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	45.884	1	45.884	151.029	.000[b]
	Residual	118.487	390	.304		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), PS

Analysis also showed that PS can be a good indicator of BI with high statistical significance (BI = 1.531 + 0.595 (PS)) (Table 4-43). Therefore, we reject the null hypothesis and accept the alternative hypothesis ($p = 0.000 < 0.05$).

Table (4-43): Coefficients[a] for Simple Linear Regression Analysis of the Effect of Perceived Security on Behavioral Intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.175	.156		13.907	.000
	PS	.495	.040	.528	12.289	.000

a. Dependent Variable: BI

4.5.3 Second Main Hypothesis

4.5.3.1 First Sub-hypothesis of the Second Main Hypothesis

H0-2a: Age will not significantly moderate the influence of the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) on customers' intention to use eFAWATEERcom.

H1-2a: Age will significantly moderate the influence of the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) on customers' intention to use eFAWATEERcom.

Hierarchical linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis (Table 4-44). It was found that variance (measured by R^2 in the aforementioned table) changed from 54.3% to 54.6% when Age was added as a predictor to the model (regarded as model 2). This is not a very big change, indicating the predictive power was not enhanced.

Table (4-44): Model Summery for Hierarchical Linear Regression Analysis of the Moderating Effect of Age on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.737[a]	.543	.536	.44148
2	.739[b]	.546	.538	.44062

a. Predictors: (Constant), PS, SI, EE, PE, FC, TR

b. Predictors: (Constant), PS, SI, EE, PE, FC, TR, Age

Analysis of variance approach (ANOVA) showed that both predictive models can predict BI in a statistically significant manner ($F_{model(1)}(6,385) = 76.389$, $p<0.05$; $F_{model(2)}(7,384) = 66.091$, $p<0.05$), as shown in Table (4-45).

Table (4-45): ANOVA[a] for Hierarchical Linear Regression Analysis of the Moderating Effect of Age on Behavioral Intention.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89.332	6	14.889	76.389	.000[b]
	Residual	75.039	385	.195		
	Total	164.371	391			
2	Regression	89.819	7	12.831	66.091	.000[c]
	Residual	74.552	384	.194		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), PS, SI, EE, PE, FC, TR

c. Predictors: (Constant), PS, SI, EE, PE, FC, TR, Age

However, it seems that even though the models have statistically significant predictive power, Age as a moderator does not seem to have unique predictive power on Behavioral Intention ($p = 0.114 > 0.05$) (Table 4-46). Therefore, we accept the null hypothesis.

Table (4-46): Coefficients[a] for Hierarchical Linear Regression Analysis of the Moderating Effect of Age on Behavioral Intention.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	.394	.174		2.260	.024
	PE	.294	.043	.302	6.837	.000
	EE	.113	.041	.134	2.769	.006
	SI	.162	.042	.163	3.891	.000
	FC	.009	.047	.010	.192	.848
	TR	.216	.055	.210	3.899	.000
	PS	.146	.046	.156	3.209	.001
2	(Constant)	.258	.194		1.328	.185
	PE	.298	.043	.306	6.932	.000
	EE	.119	.041	.141	2.919	.004
	SI	.178	.043	.179	4.159	.000
	FC	-.001-	.047	-.001-	-.011-	.991
	TR	.208	.055	.203	3.760	.000
	PS	.144	.046	.154	3.155	.002
	Age	.043	.027	.057	1.583	.114

a. Dependent Variable: BI

4.5.3.2 Second Sub-hypothesis of the Second Main Hypothesis

H0-2b: Gender will not significantly moderate the influence of the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) on customers' intention to use eFAWATEERcom.

H1-2b: Gender will significantly moderate the influence of the independent variables (performance expectancy, effort expectancy, social influence, facilitating conditions, trust, perceived security) on customers' intention to use eFAWATEERcom.

Hierarchical linear regression with analysis of variance approach (ANOVA) were used to examine the above hypothesis (Table 4-47). It was found that variance (measured by R^2 in the aforementioned table) changed from 54.3% to 54.4% when Gender was added as a predictor to the model (regarded as model 2). This is not a very big change, indicating the predictive power was not enhanced.

Table (4-47): Model Summery for Hierarchical Linear Regression Analysis of the Moderating Effect of Gender on Behavioral Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.737[a]	.543	.536	.44148
2	.737[b]	.544	.535	.44204

a. Predictors: (Constant), PS, SI, EE, PE, FC, TR

c. Predictors: (Constant), PS, SI, EE, PE, FC, TR, Gender

Analysis of variance approach (ANOVA) showed that both predictive models can predict BI in a statistically significant manner ($F_{model(1)}(6,385) = 76.389$, $p<0.05$; $F_{model(2)}(7,384) = 65.317$, $p<0.05$), as shown in Table (4-48).

Table (4-48): ANOVA[a] for Hierarchical Linear Regression Analysis of the Moderating Effect of Gender on Behavioral Intention.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89.332	6	14.889	76.389	.000[b]
	Residual	75.039	385	.195		

	Total	164.371	391			
2	Regression	89.339	7	12.763	65.317	.000[c]
	Residual	75.032	384	.195		
	Total	164.371	391			

a. Dependent Variable: BI

b. Predictors: (Constant), PS, SI, EE, PE, FC, TR

c. Predictors: (Constant), PS, SI, EE, PE, FC, TR, Gender

However, it seems that even though the models have statistically significant predictive power, Gender as a moderator does not seem to have unique predictive power on Behavioral Intention ($p = 0.856 > 0.05$) (Table 4-49). Therefore, we accept the null hypothesis.

Table (4-49): Coefficients[a] for Hierarchical Linear Regression Analysis of the Moderating Effect of Gender on Behavioral Intention.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.394	.174		2.260	.024

	PE	.294	.043	.302	6.837	.000
	EE	.113	.041	.134	2.769	.006
	SI	.162	.042	.163	3.891	.000
	FC	.009	.047	.010	.192	.848
	TR	.216	.055	.210	3.899	.000
	PS	.146	.046	.156	3.209	.001
2	(Constant)	.414	.206		2.008	.045
	PE	.293	.044	.301	6.732	.000
	EE	.112	.041	.133	2.741	.006
	SI	.162	.042	.163	3.886	.000
	FC	.009	.047	.010	.203	.839
	TR	.215	.055	.210	3.893	.000
	PS	.146	.046	.156	3.189	.002
	Gender	-.008-	.046	-.007-	-.182-	.856

a. Dependent Variable: BI

Chapter Five

Discussion, Conclusions and Recommendations

Chapter Five

5.1 Discussion

Results of the current study show that several factors affect customers' intention to use eFAWATEERcom. These factors are performance expectancy, effort expectancy, facilitating conditions, social influences, trust and perceived security. All the above mentioned factors had a significant positive direct relationship with behavior intention, at $\alpha \leq 0.05$. Additionally, taken together, they accounted for 54.4% of the variability observed in behavior intention. On the other hand, age and gender did not have a moderating effect on the above-mentioned constructs' ability to predict behavior intention. As such, a model that predicts customers' intention to use eFAWATEERcom was proposed and analyzed. Detailed discussion of the study's findings along with comparison with previous work of other researchers will be presented in the following sections.

The subject of electronic payments has been widely studied over the past few years. (Middlebrook et al, 2016; Santos, 2017; Anderson et al, 2017). eFWATEERcom represent Jordan’s first electronic payment system it is well documented that different cultures have different responses to technology acceptance (Ashraf et al, 2014; Baptista, 2015). Therefore, studying the factors that would influence e-payments (and other technological advances) should be studied in a cultural context. That means that researchers of different countries should conduct their own research to be able to understand the impact of these factors on technology acceptance in their respective cultures.

Several models were put forward to evaluate the acceptance and intention to use a new technology (Ajzen & Fishbein, 1980; Ajzen, 1985; Davis, 1986; Ajzen, 1991; Taylor & Todd, 1995; Vallerand, 1997; Venkatesh & Davis, 2000; Armitage & Conner, 2001; Venkatsh *et al*, 2003; Rogers, 2003). Adopting findings of models that were tested under different settings and different cultural conditions would have grave impact on the conclusions drawn from such findings.

In the current study, the researcher aimed to explain customer's acceptance and intention to use (or intention to continue using) eFAWATEERcom. The study model was based on constructs if the unified theory of UTAUT extended by two factors that the researcher deemed important based on previous literature.

This study employed a questionnaire survey that was disseminated either electronically or directly to customers of Jordan banks in Amman/Jordan.

The questionnaire was refereed by a panel of experts and found to be able to measure the elements that the study was designed to measure. This indicates good content validity. Additionally, linguistic validation was also done via the process of back-translation. This questionnaire was evaluated for reliability and internal consistency and found to be a good reflector of the objectives it was set out to measure. Although not one of the primary objectives of this study, it is worthy to be mentioned that a good proportion of subjects (82%) were familiar in eFAWATEERcom. Of these, more than 75% reported they had moderate to very good knowledge of the system. However, about only half of the sample stated that they more were current users. Of note, most users showed a very high level of intention to use eFAWATEERcom as indicated by the high priority level of construct behavioral intention (BI).

Banks can be a good source of information about electronic payment systems. In Jordan, eFAWATEERcom is owned by the Central Bank of Jordan (CBJ), which is considered the governing body for all commercial banks actively operating in the country. The CBJ released guidelines that obligated commercial banks to offer eFAWATEERcom to their customers. As such, several banks have advertised and encouraged the use of eFAWATEERcom in Jordan. Therefore, the researcher synthesized statements to assess the respondents' satisfaction in the quantity and quality of information provided by their banks with regard to eFAWATEERcom. Overall, most were pleased with the information their banks provided. However, it seems there is still need for improvement as almost 20% of the sample stated that the amount as well as the quality of data provided about eFAWATEERcom were poor and very poor.

Also of note is that most respondents stated that they were frequent users if the Internet, and especially via their cellular phones. This note might provide good insight into the most suitable Internet-accessing tool to be targeted for future development of eFAWATEERcom. For example, investing in developing user-friendly and easy to use mobile application dealing with eFAWATEERcom can be a good approach to adopt.

Results of the current study showed that the proposed model was a good fit to explain the intention of Jordanian customers to use the electronic payment system eFAWATEERcom. In 2016, Al-Shbiel and Ahmad proposed a theoretical model based on the integration of Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) with the addition of three more constructs; self-efficacy, perceived trust and enjoyment, to explain attitudes toward electronic payment in Jordan (Al-Shbeil and Ahmad, 2016). However, their mark was only theoretical and their model was not validated through practical applications.

Further, the researcher argues that while TAM and TPB represent good initial models that were used to explain technology acceptance behavior, they were further developed, modified and extended over the years. It is the researcher's opinion that the Unified Theory of Acceptance and Use of Technology (UTAUT) would present a superior model as it was reported a 30% increase in predictive power over the other models it was based on (Vinkatesh et al, 2003). Additionally, the researcher included the constructs of "Trust" and "Perceived Security" which in this time and age are very important due to the increased risk of "cyber-pirating" and identity theft.

The model presented in this study can be regarded as an extension of the UTAUT, as it includes two constructs that were not present of the original model; these are Trust (TR) and Perceived Security (PS). Consistent with the original model (Vinkatesh et al, 2003), this study reports that Performance Expectancy (PE) is the strongest predictor of intention to use eFAWATEERcom in Jordan. It accounted for around 37% of the variance observed in the dependent variable. That said, all other independent variables, namely; effort expectancy, social influence, facilitating conditions, trust and perceived security, had a significant positive impact on the dependent variable, at $\alpha \leq 0.05$.

The results of this study showed that neither age nor Gender added any statically significant predictive proven to the model proposed. This is contradicting to the original UTAUT model but consistent with Al-Qaisi (2009), who reported that Age and Gender did not moderate the effect of UTAUT constructs on Behavioral Intentions (BI) of mobile banking use in Jordan. This, in the researcher's opinion, could be another supportive argument to previous research suggesting different response in different cultural contexts.

5.2 Conclusions

Based on the above, the researcher concludes that the model presented here can be an appropriate approach to explain and predict users' intention to use eFAWATEERcom. Performance Expectancy, Effort Expectancy, Social Influences, Facilitating Condition, Trust and Perceived Security can account for around 55% of the variance observed in Behavior Intention, with a very high statistical significance, at $\alpha \leq 0.05$. The researcher also concludes that neither Age nor Gender is statistically significant moderators of Behavior Intention. The researcher also asserts previous findings that Behavior Intention and technology acceptance are in fact culture-dependent.

Further to the above, the research presented herein gave an indication that customers (regardless of their age or gender) are quite familiar with eFAWATEERcom, as more than 80% of the sample surveyed stated they were familiar with the system. Additionally, it seems that, although only 50% of respondents were actual users of eFAWATEERcom, more than 80% indicated they would use the system and recommend its use to others in the future. Finally, commercial banks seem to be on the right track with regard to being a primary source for information about eFAWATEERcom; customers were happy with the amount and quality of data provided by their banks about the subject.

5.3 Recommendations

1- Further research in the field of technology acceptance in Jordan, especially in the area of electronic banking and electronic payments, should be conducted. A special focus of

that research should be on validating well-established models in the Jordanian Cultural Setting.

2- Developing mobile applications concerned with eFAWATEERcom that are user-friendly and easy to use is to be encouraged, since most frequent internet users do so via their cellular phones.

3- The researcher suggests that banks are encouraged to provide more and better quality data about eFAWATEERcom to their customers.

4- The researcher recommends that the model presented in this study be adopted by commercial banks on regular basis to provide feedback regarding their customers' intention to use (or continue to use) eFAWATEERcom.

5- Further validation of the presented model should be done on a larger sample in multiple governorates in Jordan.

6- Further studies in the field of technology acceptance in Jordan is recommended, especially with regard to electronic banking solutions.

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Appendices

Appendix 1

Expert panel of reviewers

	Name	**Specialty**	**Institute**
1	Dr. Mohammad AL Nawayseh	Business	University of Jordan
2	Dr. Mahmood Maqaiyleh	Finance	University of Jordan
3	Dr. Basher Abu Kholy	Business	University of Jordan
4	Dr. Ahmed Ali Saleh	Business	Middle East University
5	Dr. Samir Al Jabali	Business	Middle East University
6	Dr. Mohammad Abdulqader	Business	Al- Israa University

Appendix 2

Questionnaire version number 1

Thank you for participating in this survey. The purpose of this study is to explore factors influencing customers' intentions to use eFAWATEERcom in Jordan. Please try to be as accurate as possible. We thank you for your time.

Are you a current user of eFAWATEERcom? **Yes** ☐ **No** ☐

Part One: Related Knowledge and Experience (Please tick the box that matches your status)

9- How long have you had a bank account?

don't have ☐ less than 1 yr ☐ 1-2 years ☐ more than 2 years ☐

10- How do you describe your bank's information about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

11- How do you describe the amount of data your bank provides about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

12- How do you describe the quality of data your bank provides about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

13- How do you describe your knowledge about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

14- How do you describe your general computer knowledge?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

15- How do you describe your internet knowledge?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

16- How many times do you use the internet per day?

once ☐ 2-5 times ☐ 5-10 times ☐ more than 10 times ☐

17- What is the most common tool you use the internet through?

Cellular Phone ☐ Laptop ☐ PC ☐ Tablet or iPad ☐

Part Two: Classification questions (Please tick the appropriate answer)

1- Gender: Female ☐ Male ☐

2- Marital Status: Single ☐ Married ☐ Divorced / Separated ☐ other ☐

3- Age: 20 or under ☐ 21- 30 ☐ 31- 40 ☐ 41 -50 ☐ 51- 60 ☐ 61 + ☐

4- Level of education:

High school & below ☐ Diploma ☐ Bachelor ☐ Master's degree ☐
PhD ☐ other ☐ Pls. state _____

5- Type of employment:

Not working ☐ Public sector ☐ Private Sector ☐ Free lancing ☐ My own business ☐

6- Occupation (Please specify, e.g. "University Lecturer in Chemical Engineering**")**

6a- Your occupation _____

6b- Occupation of the main income earner in the home (if different from 15a)

_____

7- Income bracket of your household/month:

Under JD500 ☐ JD501 – 749 ☐ JD750 -999 ☐ JD1000 – 1499 ☐
JD1500 – 1999 ☐ JD2000+ ☐

8- What is the bank of your primary account for expenses? Please specify

_____

Part Three:

18- Using a rating scale of 1 to 5, please circle the number that indicates your level of disagreement/agreement with the following statements:

No.	Statement					
Performance Expectancy (PE)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I find eFAWATEERcom useful	1	2	3	4	5
2	Using eFAWATEERcom enables me to accomplish paying bills more quickly	1	2	3	4	5

3	Using eFAWATEERcom increases the effective use of my time in handling bills	1	2	3	4	5
4	Using eFAWATEERcom increases the quality of my banking services output at minimal efforts	1	2	3	4	5

Effort Expectancy (EE)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5	My interaction with eFAWATEERcom is clear and understandable	1	2	3	4	5
6	I am skilful at using eFAWATEERcom	1	2	3	4	5
7	Learning to use the eFAWATEERcom system is easy for me	1	2	3	4	5
8	I find it easy to get the eFAWATEERcom system to do what I want it to do	1	2	3	4	5

Social Influence (SI)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9	People who are important to me think that I should use eFAWATEERcom	1	2	3	4	5
10	People who influence my behavior think I should use eFAWATEERcom	1	2	3	4	5
11	The bank staff are helpful in the use of eFAWATEERcom	1	2	3	4	5
12	The bank encourages the use of eFAWATEERcom	1	2	3	4	5

Facilitating Conditions (FC)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13	When I need help to use eFAWATEERcom, someone is there to help me	1	2	3	4	5
14	I am given helpful and useful instructions on using eFAWATEERcom	1	2	3	4	5
15	The eFAWATEERcom system is organized and clear	1	2	3	4	5
16	I have the knowledge necessary to use eFAWATEERcom	1	2	3	4	5

Attitude toward using (AT)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16	Using eFAWATEERcom is a good idea	1	2	3	4	5
17	eFAWATEERcom are more interesting than conventional modalities	1	2	3	4	5
18	Using eFAWATEERcom is more appealing	1	2	3	4	5
19	I like eFAWATEERcom	1	2	3	4	5

Trust (TR)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
24	I believe that eFAWATEERcom is trustworthy	1	2	3	4	5
25	Even if not monitored, I am certain that eFAWATEERcom will do the right job	1	2	3	4	5
26	I do not doubt the honesty of eFAWATEERcom	1	2	3	4	5
27	eFAWATEERcom has the ability to fulfill the proper tasks	1	2	3	4	5

Perceived Security (PS)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
28	I feel assured that there are adequate technological structures to protect me from problems with eFAWATEERcom	1	2	3	4	5
29	I believe my transactions through eFAWATEERcom are likely to be secure	1	2	3	4	5
30	The bank will inform me if there are problems with my transactions	1	2	3	4	5
31	I believe eFAWATEERcom authorizes transactions from my account only if requested by me	1	2	3	4	5

Behavioral Intention (BI)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20	I intend to use eFAWATEERcom in the future	1	2	3	4	5
21	I recommend the use of eFAWATEERcom to others	1	2	3	4	5
22	I am glad to use eFAWATEERcom	1	2	3	4	5
23	I would rather that all my monetary transactions are through eFAWATEERcom	1	2	3	4	5

Appendix 3

Questionnaire version number 2

Thank you for participating in this questionnaire. The purpose of this study is to explore factors influencing customers' intentions to use eFAWATEERcom in Jordan. Please try to be as accurate as possible. We thank you for your time.

Do you know what eFAWATEERcom is? **Yes** ☐ **No** ☐

If the answer is NO, thank you for your time, please stop here.

Are you a current user of eFAWATEERcom? **Yes** ☐ **No** ☐

Part One: Classification questions (Please tick the appropriate answer)

1- Gender: Female ☐ Male ☐

2- Marital Status: Single ☐ Married ☐ Divorced / Separated ☐ other ☐

3- Age: 20 or less ☐ 21- 30 ☐ 31- 40 ☐ 41 -50 ☐ 51- 60 ☐ 61 or more ☐

4- Level of education:

High school & below ☐ Diploma ☐ Bachelor ☐ Master's degree ☐
PhD ☐ other ☐ Pls. state _____

5- Type of employment:

Not working ☐ Public sector ☐ Private Sector ☐ Free lancing ☐ My own business ☐

6- Occupation (Please specify, e.g. "University Lecturer in Chemical Engineering**")**

6a- Your occupation _____

6b- Occupation of the main income earner in the home (if different from 15a)

_____

7- Income bracket of your household/month:

Under JD500 ☐ JD501 – 749 ☐ JD750 -999 ☐ JD1000 – 1499 ☐
JD1500 – 1999 ☐ JD2000+ ☐

8- What is the bank of your primary account for expenses? Please specify

_____

Part Two: Related Knowledge and Experience (Please tick the box that matches your status)

9- How long have you had a bank account?

don't have ☐ less than 1 yr ☐ 1-2 years ☐ more than 2 years ☐

10- How do you describe your bank's information about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

11- How do you describe the amount of data your bank provides about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

12- How do you describe the quality of data your bank provides about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

13- How do you describe your knowledge about eFAWATEERcom?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

14- How do you describe your general computer knowledge?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

15- How do you describe your internet knowledge?

very poor ☐ poor ☐ moderate ☐ good ☐ very good ☐

16- How many times do you use the internet per day?

once ☐ 2-5 times ☐ 5-10 times ☐ more than 10 times ☐

17- What is the most common tool you use the internet through?

Cellular Phone ☐ Laptop ☐ PC ☐ Tablet or iPad ☐

Part Three:

18- Using a rating scale of 1 to 5, please circle the number that indicates your level of disagreement/agreement with the following statements:

No.	Statement					
Performance Expectancy (PE)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I find eFAWATEERcom useful	1	2	3	4	5
2	Using eFAWATEERcom enables me to accomplish paying bills more quickly	1	2	3	4	5
3	Using eFAWATEERcom increases the effective use of my time in handling bills	1	2	3	4	5
4	Using eFAWATEERcom increases the quality of my banking services output at minimal efforts	1	2	3	4	5

Effort Expectancy (EE)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5	My interaction with eFAWATEERcom is clear and understandable	1	2	3	4	5
6	I am skilful at using eFAWATEERcom	1	2	3	4	5
7	Learning to use the eFAWATEERcom system is easy for me	1	2	3	4	5
8	I find it easy to get the eFAWATEERcom system to do what I want it to do	1	2	3	4	5

Social Influence (SI)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9	People who are important to me think that I should use eFAWATEERcom	1	2	3	4	5
10	People who influence my behavior think I should use eFAWATEERcom	1	2	3	4	5
11	The bank staff are helpful in the use of eFAWATEERcom	1	2	3	4	5
12	The bank encourages the use of eFAWATEERcom	1	2	3	4	5

Facilitating Conditions (FC)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13	When I need help to use eFAWATEERcom, someone is there to help me	1	2	3	4	5
14	I am given helpful and useful instructions on using eFAWATEERcom	1	2	3	4	5
15	The eFAWATEERcom system is organized and clear	1	2	3	4	5
16	I have the knowledge necessary to use eFAWATEERcom	1	2	3	4	5

Attitude toward using (AT)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16	Using eFAWATEERcom is a good idea	1	2	3	4	5
17	eFAWATEERcom are more interesting than conventional modalities	1	2	3	4	5
18	Using eFAWATEERcom is more appealing	1	2	3	4	5
19	I like eFAWATEERcom	1	2	3	4	5

Trust (TR)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
24	I believe that eFAWATEERcom is trustworthy	1	2	3	4	5
25	Even if not monitored, I am certain that eFAWATEERcom will do the right job	1	2	3	4	5
26	I do not doubt the honesty of eFAWATEERcom	1	2	3	4	5
27	eFAWATEERcom has the ability to fulfill the proper tasks	1	2	3	4	5

Perceived Security (PS)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
28	I feel assured that there are adequate technological structures to protect me from problems with eFAWATEERcom	1	2	3	4	5
29	I believe my transactions through eFAWATEERcom are likely to be secure	1	2	3	4	5
30	The bank will inform me if there are problems with my transactions	1	2	3	4	5
31	I believe eFAWATEERcom authorizes transactions from my account only if requested by me	1	2	3	4	5

Behavioral Intention (BI)		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20	I intend to use eFAWATEERcom in the future	1	2	3	4	5
21	I recommend the use of eFAWATEERcom to others	1	2	3	4	5
22	I am glad to use eFAWATEERcom	1	2	3	4	5
23	I would rather that all my monetary transactions are through eFAWATEERcom	1	2	3	4	5

Appendix 4

Questionnaire version number 3

شكرا لمشاركتكم في هذا الاستبيانز الهدف من هذه الدراسة لاستكشاف عوامل تأثير نوايا العملاء لاستخدام اي فواتيركم في الأردن. الرجاء تحري الدقة قدر المستطاع. ونشكركم على وقتكم.

هل انت مستخدم حالي لاي فواتيركم؟ نعم لا

الجزء الاول: اسئلة التصنيف (الرجاء اختيار الاجابة المناسبة)

١- الجنس : ذكر انثى
٢- الحالة الاجتماعية: أعزب متزوج مطلق \ منفصل أخرى
٣- العمر: ٢٠ فما دون ٢١-٣٠ ٣١-٤٠ ٥١-٦٠ ٦١ فما فوق
٤- مستوى التعليم:
ثانوية عامة وما دون دبلوم بكالوريوس ماجستير دكتوراه أخرى
(الرجاء ذكرها) ----------
٥- قطاع العمل:
عاطل عن العمل قطاع عام قطاع خاص عمل حر مشروع خاص
٦- المهنة (الرجاء التحديد. مثال:"محاضر جامعي في الهندسة الكيميائية")
أ- المهنة ----------
ب- مهنة المعيل في المنزل (ان كان مختلف عن الفرع أ) ----------
٧- مستوى الدخل المنزلي/ الشهر:
دون ال٥٠٠ دينار ٥٠١-٧٤٩ دينار ٧٥٠-٩٩٩ دينار ١٠٠٠-١٤٩٩ دينار ٥٠٠-١٩٩٩ دينار ٢٠٠٠ دينار فما فوق

٨- ما هو البنك لحسابك الاساسي للمصروفات؟ الرجاء التحديد

الجزء الثاني: الخبرة والمعرفة ذات الصلة (الرجاء اختيار الخيار المذي ينطبق على حالتكم)

٩- متى تم انشاء حسابك البنكي الشخصي؟
ليس لدي حساب اقل من سنة منذ ١-٢ سنة منذ اكثر من سنتين
١٠- كيف تصف معرفة البنك الذي تتعامل معه باي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١١- كيف تصف كمية المعلومات التي يقدمها البنك الذي تتعامل معه عن اي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٢- كيف تصف جودة المعلومات التي يقدمها البنك الذي تتعامل معه عن اي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٣- كيف تصنف معرفتك باي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٤- كيف تصنف معرفتك بالحاسوب بشكل عام؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٥- كيف تصنف معرفتك بالانترنت ؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٦- كم مرة تستخدم الانترنت خلال اليوم؟
مرة واحدة ٢-٥ مرات ٥-١٠ مرات اكثر من ١٠ مرات
١٧- ما هي الاداة التي تستخدم من خلالها النترنت في معظم الأوقات؟
الهاتف الخلوي اللابتوب الحاسوب التابلت او الايباد

الجزء الثالث:

١٨- باستخدام مقياس التقييم من ١-٥، الرجاء وضع دائرة حول الرقم الذي يمثل درجة الموافقة/عدم الموافقة مع العبارات التالية:

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١	اجد اي فواتيركم مفيدة	١	٢	٣	٤	٥
٢	اي فواتيركم تساعدني على دفع الفواتير بشكل اسرع	١	٢	٣	٤	٥
٣	استخدام اي فواتيركم يزيد من استخدام وقتي بفاعلية بدفع الفواتير	١	٢	٣	٤	٥
٤	استخدام اي فواتيركم يزيد من جودة الخدمات البنكية باقل مجهود	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٥	تفاعلي مع اي فواتيركم واضح ويسهل فهمه	١	٢	٣	٤	٥
٦	انا امتلك مهارة جيدة باستخدام اي فواتيركم	١	٢	٣	٤	٥
٧	نعلم استخدام اي فواتيركم سهل بالنسبة لي	١	٢	٣	٤	٥
٨	اجد سهولة في جعل نظام اي فواتيركم يفعل ما اريد منه ان يفعله	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٩	الناس المهمين بالنسبة لي يعتقدون انني يجب ان استخدم اي فواتيركم	١	٢	٣	٤	٥
١٠	الناس الذين يؤثرون علي يعتقدون انني يجب ان استخدم اي فواتيركم	١	٢	٣	٤	٥
١١	طاقم البنك يقدمون المساعدة فب خدمة اي فواتيركم	١	٢	٣	٤	٥
١٢	البنك يشجع على استخدام اي فواتيركم	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١٣	عندما احتاج للمساعدة في استخدام اي فواتيركم، اجد من يساعدني	١	٢	٣	٤	٥
١٤	اجد تعليمات مساعدة ومفيدة في استخدام اي فواتيركم	١	٢	٣	٤	٥
١٥	نظام اي فواتيركم منظم وواضح	١	٢	٣	٤	٥
١٦	لدي المعرفة الضرورية لاستخدام اي فواتيركم	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١٦	استخدام اي فواتيركم فكرة جيدة	١	٢	٣	٤	٥
١٧	اي فواتيركم اكثر منعة من الطرق التقليدية	١	٢	٣	٤	٥
١٨	استخدام اي فواتيركم اكثر جذبا للمستخدم	١	٢	٣	٤	٥
١٩	انا معجب باي فواتيركم	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٠	اي فواتيركم جدير بالثقة	١	٢	٣	٤	٥
٢١	حتى وان لم يكن تحت المراقبة، اي فواتيركم سيقوم بالعمل الصحيح	١	٢	٣	٤	٥
٢٢	لا اشك بمصداقية اي فواتيركم	١	٢	٣	٤	٥
٢٣	اي فواتيركم لديه القدرة على اتمام المهمات المناسبة	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٤	انا واثق من وجود بنية تقنية مناسبة لحمايتي من المشاكل مع اي فواتيركم	١	٢	٣	٤	٥
٢٥	انا واثق بان تعاملاتي من خلال اي فواتيركم محمية	١	٢	٣	٤	٥
٢٦	البنك سيقوم بابلاغي في حلا حدوث اي مشكلة في تعاملاتي	١	٢	٣	٤	٥
٢٧	اعتقد ان اي فواتيركم لا تسمح باي تعاملات من حسابي الا بطلب مني	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٨	انا انو ان استخدم اي فواتيركم في المستقبل	١	٢	٣	٤	٥
٢٩	انا اوصي باستخدام اي فواتيركم	١	٢	٣	٤	٥
٣٠	انا سعيد باستخدام اي فواتيركم	١	٢	٣	٤	٥
٣١	انا افضل ان تكون كل تعاملاتي النقدية من خلال اي فواتيركم	١	٢	٣	٤	٥

Appendix 5

Questionnaire version number 4

شكرا لمشاركتكم في هذا الاستبيانز الهدف من هذه الدراسة لاستكشاف عوامل تأثير نوايا العملاء لاستخدام اي فواتيركم في الأردن. الرجاء تحري الدقة قدر المستطاع. ونشكركم على وقتكم.

Thank you for participating in this survey. The goal of this study is to discover the factors that affect the intension of clients to use e-fawateerkom in Jordan. Please be as precise as possible and thank you for your time.

هل انت مستخدم حالي لاي فواتيركم؟ نعم لا

Are you a current user of e-fawateerkom? Yes No

الجزء الاول: اسئلة التصنيف (الرجاء اختيار الاجابة المناسبة)

Part one: Categorization questions (Please choose the correct answer)

١- الجنس : ذكر انثى
Gender: Male Female

٢- الحالة الاجتماعية: أعزب متزوج مطلق \ منفصل أخرى
Marital Status: Single Married Divorced/Separated Other

٣- العمر: ٢٠ فما دون ٢١-٣٠ ٣١-٤٠ ٥١-٦٠ ٦١ فما فوق
Age:

٤- مستوى التعليم:
ثانوية عامة وما دون دبلوم بكالوريوس ماجستير دكتوراه أخرى
(الرجاء ذكرها) ----------
Educational Level:
High School Associate's degree Bachelor's Master's PHD Other

٥- قطاع العمل:
عاطل عن العمل قطاع عام قطاع خاص عمل حر مشروع خاص
Field of work:
Unemployed Public sector Private Sector Freelance Own business

٦- المهنة (الرجاء التحديد. مثال:"محاضر جامعي في الهندسة الكيميائية")
Profession (Please specify. Example: Chemical Engineering university professor)
أ- المهنة----------
Profession
ب- مهنة المعيل في المنزل (ان كان مختلف عن الفرع أ) ----------
Profession of the family provider: (If different than A)

٧- مستوى الدخل المنزلي/ الشهر:
Level of household income per month
دون ال٥٠٠ دينار ٥٠١-٧٤٩ دينار ٧٥٠-٩٩٩ دينار ١٠٠٠-١٤٩٩ دينار ٥٠٠-
١٩٩٩ دينار ٢٠٠٠ دينار فما فوق

٨- ما هو البنك لحسابك الاساسي للمصروفات؟ الرجاء التحديد
What is the bank of your main spending account? Please specify
---

الجزء الثاني: الخبرة والمعرفة ذات الصلة (الرجاء اختيار الخيار المذي ينطبق على حالتكم)

Part two: Experience and related knowledge

٩- متى تم انشاء حسابك البنكي الشخصي؟

When did you open your personal bank account?

ليس لدي حساب اقل من سنة منذ ١-٢ سنة منذ اكثر من سنتين

I don't have a bank account

Less than a Year

1-2 years

more than 2 years

١٠- كيف تصف معرفة البنك الذي تتعامل معه باي فواتيركم؟

How would you describe your bank's knowledge of e-fawateerkom

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

Very weak Weak Medium Good Very good

١١- كيف تصف كمية المعلومات التي يقدمها البنك الذي تتعامل معه عن اي فواتيركم؟

How would you describe the amount of information your bank provides about e-fawateerkom?

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

١٢- كيف تصف جودة المعلومات التي يقدمها البنك الذي تتعامل معه عن اي فواتيركم؟

How would you describe the quality of information your bank provides about e-fawateerkom?

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

١٣- كيف تصنف معرفتك باي فواتيركم؟

How would you describe your knowledge about e-fawateerkom?

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

١٤- كيف تصنف معرفتك بالحاسوب بشكل عام؟

How would you describe your general computer knowledge?

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

١٥- كيف تصنف معرفتك بالانترنت ؟

How would you describe your internet knowledge?

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

١٦- كم مرة تستخدم الانترنت خلال اليوم؟

How many times do you use the internet throughout the day?

مرة واحدة ٢-٥ مرات ٥-١٠ مرات اكثر من ١٠ مرات

Once 2-5 times 5-10 times more than 10 times

١٧- ما هي الاداة التي تستخدم من خلالها النترنت في معظم الأوقات؟

What do you use to browse the internet most of the time?

الهاتف الخلوي اللابتوب الحاسوب التابلت او الايباد

Mobile phone Laptop Desktop Tablet or ipad

الجزء الثالث:

Part Three

١٨- باستخدام مقياس التقييم من ١-٥، الرجاء وضع دائرة حول الرقم الذي يمثل درجة الموافقة/عدم الموافقة مع العبارات التالية:

Using a scale of 1 – 5 please choose the number that represents how much you agree/disagree with the following statements

الرقم Number	العبارة Statement	لا اوافق بشدة Strongly disagree	لا اوافق Disagree	محايد Neutral	اوافق Agree	اوافق بشدة Strongly agree

١	اجد اي فواتيركم مفيدة I find e-fawateerkom useful	١	٢	٣	٤	٥
٢	اي فواتيركم تساعدني على دفع الفواتير بشكل اسرع e-fawateerkom helps me pay my bills faster	١	٢	٣	٤	٥
٣	استخدام اي فواتيركم يزيد من استخدام وقتي بفاعلية بدفع الفواتير Using e-fawateerkom increases the efficient use of my time when paying bills	١	٢	٣	٤	٥
٤	استخدام اي فواتيركم يزيد من جودة الخدمات البنكية باقل مجهود Using e-fawateerkom increases the quality of banking services with minimal effort.	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٥	تفاعلي مع اي فواتيركم واضح ويسهل فهمه My interaction with e-fawateerkom is clear and easy to understand	١	٢	٣	٤	٥
٦	انا امتلك مهارة جيدة باستخدام اي فواتيركم I have good skills using e-fawateerkom	١	٢	٣	٤	٥
٧	نعلم استخدام اي فواتيركم سهل بالنسبة لي Learning to use e-fawateerkom is easy for me	١	٢	٣	٤	٥
٨	اجد سهولة في جعل نظام اي فواتيركم يفعل ما اريد منه ان يفعله I find it easy to get e-fawateerkom to do what I want it to do	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٩	الناس المهمين بالنسبة لي يعتقدون انني	١	٢	٣	٤	٥

	يجب ان استخدم اي فواتيركم People who are important to me think that I should use e-fawateerkom					
١٠	الناس الذين يؤثرون علي يعتقدون انني يجب ان استخدم اي فواتيركم People who affect me think I should use e-fawateerkom	١	٢	٣	٤	٥
١١	طاقم البنك يقدمون المساعدة فب خدمة اي فواتيركم Bank employees offer help using e-fawateerkom	١	٢	٣	٤	٥
١٢	البنك يشجع على استخدام اي فواتيركم The bank encourages using e-fawateerkom	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١٣	عندما احتاج للمساعدة في استخدام اي فواتيركم، اجد من يساعدني When I need help using e-fawateerkom I can easily find someone to help me.	١	٢	٣	٤	٥
١٤	اجد تعليمات مساعدة ومفيدة في استخدام اي فواتيركم I find instructions helpful and useful in using e-fawateerkom	١	٢	٣	٤	٥
١٥	نظام اي فواتيركم منظم وواضح E-fawateerkom system is organized and clear	١	٢	٣	٤	٥
١٦	لدي المعرفة الضرورية لاستخدام اي فواتيركم I have the necessary knowledge to use e-fawateerkom	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١٦	استخدام اي فواتيركم فكرة جيدة Using e-fawateerkom is a good idea	١	٢	٣	٤	٥
١٧	اي فواتيركم اكثر منعة من الطرق التقليدية E-fawateerkom is more fun than traditional methods	١	٢	٣	٤	٥
١٨	استخدام اي فواتيركم اكثر جذبا للمستخدم	١	٢	٣	٤	٥

	Using e-fawateerkom is more attractive for users					
١٩	انا معجب باي فواتيركم I like e-fawateerkom	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٠	اي فواتيركم جدير بالثقة E-fawateerkom is trustworthy	١	٢	٣	٤	٥
٢١	حتى وان لم يكن تحت المراقبة، اي فواتيركم سيقوم بالعمل الصحيح Even if not under control e-fawateerkom will do the right thing	١	٢	٣	٤	٥
٢٢	لا اشك بمصداقية اي فواتيركم I don't doubt the credibility of e-fawateerkom	١	٢	٣	٤	٥
٢٣	اي فواتيركم لديه القدرة على اتمام المهمات المناسبة e-fawateerkom has the ability to complete the proper tasks	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٤	انا واثق من وجود بنية تقنية مناسبة لحمايتي من المشاكل مع اي فواتيركم I trust that there's proper technical infrastructure to protect me from problems with e-fawateerkom	١	٢	٣	٤	٥
٢٥	انا واثق بان تعاملاتي من خلال اي فواتيركم محمية I trust that my transactions through e-fawateerkom are secure	١	٢	٣	٤	٥
٢٦	البنك سيقوم بابلاغي في حلا حدوث اي مشكلة في تعاملاتي The bank will inform me in case of any problem in my transactions	١	٢	٣	٤	٥
٢٧	اعتقد ان اي فواتيركم لا تسمح باي تعاملات من حسابي الا بطلب مني I believe that e-fawateerkom will not allow any transactions to be done from my account without my request.	١	٢	٣	٤	٥

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٨	انا انو ان استخدم اي فواتيركم في المستقبل I intend to use e-fawateerkom in the future	١	٢	٣	٤	٥
٢٩	انا اوصي باستخدام اي فواتيركم I recommend using e-fawateerkom	١	٢	٣	٤	٥
٣٠	انا سعيد باستخدام اي فواتيركم I’m happy to use e-fawateerkom	١	٢	٣	٤	٥
٣١	انا افضل ان تكون كل تعاملاتي النقدية من خلال اي فواتيركم I prefer if all my money transactions were done through e-fawateerkom	١	٢	٣	٤	٥

Appendix 6

Questionnaire version number 5

شكرا لمشاركتكم في هذا الاستبيان. الهدف من هذه الدراسة استكشاف عوامل تأثير نوايا العملاء لاستخدام اي فواتيركم في الأردن. الرجاء تحري الدقة قدر المستطاع. ونشكركم على وقتكم.

هل تعرف ما هي اي فواتيركم eFAWATEERcom ؟ نعم لا

اذا كانت اجابتك لا، ارجو منك عدم الاستمرار وشكرا جزيلا لوقتك

هل انت مستخدم حالي لاي فواتيركم؟ نعم لا

الجزء الاول: اسئلة التصنيف (الرجاء اختيار الاجابة المناسبة)

١- الجنس : ذكر انثى
٢- الحالة الاجتماعية: أعزب متزوج مطلق / منفصل أخرى
٣- العمر: ٢٠ فما دون ٢١-٣٠ ٣١-٤٠ ٥١-٦٠ ٦١ فما فوق
٤- مستوى التعليم:
ثانوية عامة وما دون دبلوم بكالوريوس ماجستير دكتوراه أخرى
(الرجاء ذكرها) ----------
٥- قطاع العمل:
عاطل عن العمل قطاع عام قطاع خاص عمل حر مشروع خاص
٦- المهنة (الرجاء التحديد. مثال:"محاضر جامعي في الهندسة الكيميائية")
أ- المهنة ----------
ب- مهنة المعيل الرئيسي في المنزل (ان كان مختلفا عن الفرع أ) ----------
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٧- مستوى الدخل المنزلي/ الشهر:
دون ال٥٠٠ دينار ٥٠١-٧٤٩ دينار ٧٥٠-٩٩٩ دينار ١٠٠٠-١٤٩٩ دينار ١٥٠٠-
١٩٩٩ دينار ٢٠٠٠ دينار فما فوق

٨- متى تم انشاء حسابك البنكي الشخصي؟
ليس لدي حساب اقل من سنة منذ ١-٢ سنة منذ اكثر من سنتين

٩- ما هو البنك لحسابك الاساسي للمصروفات؟ الرجاء التحديد

الجزء الثاني: الخبرة والمعرفة ذات الصلة (الرجاء اختيار الخيار الذي ينطبق على حالتكم)

١٠- كيف تصف معرفة البنك الذي تتعامل معه باي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١١- كيف تصف كمية المعلومات التي يقدمها البنك الذي تتعامل معه عن اي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٢- كيف تصف جودة المعلومات التي يقدمها البنك الذي تتعامل معه عن اي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٣- كيف تصنف معرفتك باي فواتيركم؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٤- كيف تصنف معرفتك بالحاسوب بشكل عام؟
ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا
١٥- كيف تصنف معرفتك بالانترنت ؟

ضعيفة جدا ضعيفة متوسطة جيدة جيدة جدا

١٦- كم مرة تستخدم الانترنت خلال اليوم؟

مرة واحدة ٢-٥ مرات ٥-١٠ مرات اكثر من ١٠ مرات

١٧- ما هي الاداة التي تستخدم من خلالها الانترنت في معظم الأوقات؟

الهاتف الخلوي اللابتوب الحاسوب التابلت او الايباد

الجزء الثالث: عوامل التأثير

١٨- باستخدام مقياس التقييم من ١-٥، الرجاء وضع دائرة حول الرقم الذي يمثل درجة الموافقة/عدم الموافقة مع العبارات التالية:

- توقع الفعالية

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١	اجد اي فواتيركم مفيدة	١	٢	٣	٤	٥
٢	استخدام اي فواتيركم تساعدني على دفع الفواتير بشكل اسرع	١	٢	٣	٤	٥
٣	استخدام اي فواتيركم يزيد من استخدام وقتي بفاعلية بدفع الفواتير	١	٢	٣	٤	٥
٤	استخدام اي فواتيركم يزيد من جودة الخدمات البنكية باقل مجهود	١	٢	٣	٤	٥

- توقع المجهود

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٥	تفاعلي مع اي فواتيركم واضح ومفهوم	١	٢	٣	٤	٥
٦	انا امتلك مهارة جيدة تخولني من استخدام اي فواتيركم	١	٢	٣	٤	٥
٧	نعلم استخدام اي فواتيركم سهل بالنسبة لي	١	٢	٣	٤	٥
٨	اجد سهولة في جعل نظام اي فواتيركم يفعل ما اريد منه ان يفعله	١	٢	٣	٤	٥

- التأثير الاحتماعي

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٩	الناس المهمين بالنسبة لي يعتقدون انني يجب ان استخدم اي فواتيركم	١	٢	٣	٤	٥
١٠	الناس الذين يؤثرون علي يعتقدون انني يجب ان استخدم اي فواتيركم	١	٢	٣	٤	٥
١١	طاقم البنك يقدمون المساعدة فب خدمة اي فواتيركم	١	٢	٣	٤	٥
١٢	البنك يشجع على استخدام اي فواتيركم	١	٢	٣	٤	٥

- العوامل الميسّرة

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١٣	عندما احتاج للمساعدة في استخدام اي فواتيركم، اجد من يساعدني	١	٢	٣	٤	٥

١٤	يتم تزويدي بتعليمات مساعدة ومفيدة في استخدام اي فواتيركم	١	٢	٣	٤	٥
١٥	نظام اي فواتيركم منظم وواضح	١	٢	٣	٤	٥
١٦	لدي المعرفة الضرورية لاستخدام اي فواتيركم	١	٢	٣	٤	٥

- الموقف تجاه الاستخدام

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
١٦	استخدام اي فواتيركم فكرة جيدة	١	٢	٣	٤	٥
١٧	اي فواتيركم اكثر منعة من الطرق التقليدية	١	٢	٣	٤	٥
١٨	استخدام اي فواتيركم اكثر جذبا للمستخدم	١	٢	٣	٤	٥
١٩	انا معجب باي فواتيركم	١	٢	٣	٤	٥

- الثقة

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٠	انا اعتقد ان اي فواتيركم جدير بالثقة	١	٢	٣	٤	٥
٢١	حتى وان لم يكن تحت المراقبة، انا متأكد أن اي فواتيركم سيقوم بالعمل الصحيح	١	٢	٣	٤	٥
٢٢	لا اشك بمصداقية اي فواتيركم	١	٢	٣	٤	٥
٢٣	اي فواتيركم لديه القدرة على اتمام المهمات المناسبة	١	٢	٣	٤	٥

- الاحساس بالامان

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٤	انا واثق من وجود بنية تقنية مناسبة لحمايتي من المشاكل مع اي فواتيركم	١	٢	٣	٤	٥
٢٥	انا واثق بان تعاملاتي من خلال اي فواتيركم محمية	١	٢	٣	٤	٥
٢٦	البنك سيقوم بابلاغي في حلا حدوث اي مشكلة في تعاملاتي	١	٢	٣	٤	٥
٢٧	اعتقد ان اي فواتيركم لا تسمح باي تعاملات من حسابي الا بطلب مني	١	٢	٣	٤	٥

- نية الاستخدام

الرقم	العبارة	لا اوافق بشدة	لا اوافق	محايد	اوافق	اوافق بشدة
٢٨	انا انو ان استخدم اي فواتيركم في المستقبل	١	٢	٣	٤	٥
٢٩	انا اوصي باستخدام اي فواتيركم	١	٢	٣	٤	٥
٣٠	انا سعيد باستخدام اي فواتيركم	١	٢	٣	٤	٥
٣١	انا افضل ان تكون كل تعاملاتي النقدية من خلال اي فواتيركم	١	٢	٣	٤	٥