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# Customers' Intention and Adoption of Telebanking in Jordan

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## Abstract

This study investigates the factors influencing customers' intention and adoption of Telebanking in Jordan. The proposed model integrated perceived risk with the extended Unified Theory of Acceptance and Use of Technology (UTAUT2). The results show that behavioural intention is significantly influenced by performance expectancy, hedonic motivation, price value, and perceived risk. Implications for practitioners, research limitations and future directions are also discussed further in this paper.

**Keywords:** *Adoption; Behavioral Intention; Consumer; Jordan; Telebanking; SSTs; UTAUT2*

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## **1. Introduction**

The technological revolution has dramatically converted the nature of the business environment by introducing new mechanisms that improve organizational efficiency and enhance service value (Dwivedi and Irani, 2009; Meuter et al., 2005). Among these mechanisms that contribute to the service environment is self-service technology. Conceptually, self-service technology (SST) was defined as “technological interfaces that enable customers to produce a service independent of direct service employee involvement” (Meuter et al., 2000, p.50). According to Bitner et al. (2002), four common types of SST technology interfaces were applied in the service context: Telephone/ Interactive voice response (IVR) (e.g. Telebanking); Internet (e.g. online shopping); Interactive Kiosks (e.g. ATM); and video/CD. In view of the benefits of SST (e.g. cutting labour and operational costs, enhancing customers’ satisfaction and retention, attracting new customers, improving firms’ productivity and profitability, dealing with intense competition), banks have been observed as one of the most motivated industries implementing SST applications in their logistical system (Ahmad and Buttle, 2002; Bitner et al., 2000; Curran and Meuter, 2005; Demirci Orel and Kara, 2014; Sundarraj and Wu, 2005).

Of the SST applications that are widely adopted in the banking industry, Telebanking has been increasing as an indispensable banking channel in the company with Internet banking, ATM, and Mobile banking (Ahmad and Buttle, 2002; Curran and Meuter, 2005; Joseph and Stone, 2003; Mols et al., 1999; Ramsay and Smith, 1999; Sundarraj and Wu, 2005). This acceleration in Telebanking technology worldwide could be attributed to a technological breakthrough in mobile and telecommunication technology as well as the availability of technical infrastructures necessary to successfully implement this technology (Laukkanen and Cruz, 2009; Wessels and Drennan, 2010). Another motivator behind Telebanking innovation is concerned with the ability of this technology to provide clients with a higher service quality over more innovative, friendly, and cost-effective channels from both the perspective of customers and banking (Mols et al., 1999; Ramsay and Smith, 1999; Wang et al., 2006).

It is important to distinguish between the two kinds of phone banking services: automated (interactive voice response system (IVR) and operator attended (Liao et al., 1999). Operator attended usually takes place when making a traditional phone call between the customers and the bank employees to clarify any issues required by the customers or to deliver some type of financial transactions which have been requested (Liao et al., 1999). The interactive voice

response (IVR) instrument is different (e.g. Telebanking). It is a cost-effective self-service banking channel which helps customers to totally depend on themselves to produce and receive financial transactions (e.g. balance enquiry, paying bills, fund transfers) by way of calling the automated call center in the bank (Ahmad and Buttle, 2002; Bitner et al., 2002; Liao et al., 1999). This study is interested in the electronic type of Telephone banking (IVR) as a self-service channel attributed with higher novelty and innovativeness in Jordan.

Jordan is considered as one of the fastest growing countries in the Middle East in terms of mobile and telecommunication technology; there are four mobile service providers working within the Jordanian market (The Gulf Today, 2012). The number of active mobile and landline phone subscribers in Jordan has exceeded 10 million with a penetration rate of 155% recorded at the end of 2013 (The Gulf Today, 2012). Accordingly, under intense competition and with the purpose of taking advantage of the lower costs of telecommunication services in Jordan, about thirteen Jordanian banks have introduced Telebanking channels to hold their customers and offer them a variety of financial services with less monetary, time, effort and cost compared with the traditional branches (Azzam and Alramahi, 2010; Migdadi, 2012).

However, the implementation of Telebanking will not be profitable unless customers adopt this technology (Dwivedi et al., 2006; Meuter et al., 2005). By the same token, acceptance of Telebanking by Jordanian customers is still low as are other SST banking channels: Internet banking and Mobile banking (Alalwan et al., 2014; Alafeef et al., 2012; Al-Majali, 2011; Al-Rfou, 2013; Al-Smadi, 2012; Awwad and Ghadi, 2010; Salhieh et al., 2011). For instance, based on a recent survey involving 40 bank staff who are specialists in the online transactions' department in 16 Jordanian commercial banks, Al-Rfou (2013) reported that less than 20% of the total banking customers in Jordan have used the online banking services. This, in turn, means that the acceptance of Telebanking has not been growing in line with telecommunication development and implementation of this technology in Jordan. Hence, Jordanian banks have started to express their concern regarding the lower adoption rate of this technology as well as the feasibility of introducing these channels (Al-Majali, 2011; Al-Rfou, 2013; Al-Smadi, 2012; Al Sukkar and Hasan, 2005; Sundarraj and Wu, 2005).

More importantly, persuading customers to switch his or her behaviour from a traditional encounter to using Telebanking is not an easy process as long as there is a shortage in

understanding and awareness regarding the main factors forming the consumers' intention and behaviour towards Telebanking (Curran and Meuter, 2007; Dwivedi and Lal, 2007). In this respect, Meuter et al. (2005, p.78) emphasized that: *'For many firms, often the challenge is not managing the technology but rather getting consumers to try the technology.'* In spite of this, the adoption of Telebanking has not been examined by prior studies that have been conducted in Jordan yet, which in turn, reveals a lack of understanding regarding the main factors hindering or facilitating the adoption of Telebanking by Jordanian customers. Therefore, the fundamental aim in this study is to identify and empirically examine the main factors predicting customers' intention and adoption of Telebanking in the Jordanian banking context.

This study hopefully will represent a worthwhile direction by examining Telebanking which, so far, has not been well evaluated in the Jordanian context as mentioned above. Indeed, this study seeks to make a real contribution to the knowledge and literature in Jordan and the information system in general by focusing more on Telebanking as a more novel technology in Jordan and, thereby, calling for further examination. By accomplishing this aim, this study really hopes to significantly enlarge the extant understanding toward such an important problem (adoption of Telebanking). Moreover, another practical contribution is to provide the Jordanian banks with applicable guidelines that will guarantee effective implementation and adoption of Telebanking by the Jordanian customers.

The remaining sections of the paper are outlined as follows. Section 2 explains the theoretical perspective of Telebanking technology, followed by outlining the conceptual model proposed and the research hypotheses in Section 3. Section 4 illustrates the research method, while Section 5 is devoted to present data analyses and results. The results and discussion are then addressed in Section 6. Finally, Section 7 deliberates on the conclusion and contribution, accompanied by limitations and future research directions.

## **2. Literature Review**

Self-service banking technologies have been dramatically growing over the financial market, and adoption of these channels has driven a particular attention from both scholars and practitioners (Alikhani et al., 2013; Curran and Meuter, 2005; Hoehle et al., 2012; Proença and Rodrigues, 2011; Sundarraj and Wu, 2005). Along with Internet banking and ATMs, Telebanking has been considered as an integral part in any logistical banking systems worldwide as mentioned before

(Hoehle et al., 2012; Kolodinsky et al., 2004). As other types of self-service technologies, the adoption rate of Telebanking has not grown as expected, and customers are still reluctant to commonly accept this technology (Curran et al., 2003; Dimitriadis and Kyrezis, 2011; Peevers et al., 2011; Wan et al., 2005). Furthermore, banking customers have expressed less interest and preferences toward Telebanking compared to other banking channels such as ATMs and Internet banking (Akinci et al., 2004; Thornton and White, 2001). However, unlike Internet banking and ATMs, Telebanking adoption has received less interest over the SST banking literature (Hoehle and Huff, 2009; Hoehle et al., 2012). Therefore, as an attempt to build an accurate overview about the Telebanking adoption, the current study has looked at prior literature in this regard so as to identify the most predictive factor of customer intention and adoption of Telebanking as well as to choose the appropriate theoretical foundation to propose the conceptual model.

Theoretically, in their endeavor to understand the main factors that are hindering and accelerating the adoption of Telebanking, scholars have formulated a number of theories from the marketing and information system fields (Hoehle et al., 2012). For instance, Liao et al. (1999) conceptualized their model based on the innovation diffusion theory and theory of planned behavior (TPB). Their findings assured the crucial influence of ease of use, result demonstrability, relative advantages, and compatibility on the customers' attitudes toward phone banking while customers' attitudes and perceived behavioral control had a weak but significant influence on the customer's intention to use phone banking. The technology acceptance model (TAM) was used by Sundarraj and Wu (2005) to test the usage of Telebanking and online banking. The main finding of this study indicated that Telebanking was seen as less useful and less easy relative to online banking. Also, the usage rate of Telebanking was less than that of online banking. Moreover, Sundarraj and Wu (2005) recognized that the usage of Telebanking was exclusively determined by perceived usefulness while perceived ease of use has only an indirect impact on the usage behavior by a mediating effect of perceived usefulness. In addition, Sundarraj and Wu's (2005) model was only able to explain 0.24 of variance in the usage of Telebanking.

Likewise, Curran and Meuter (2005) established that customers' attitudes toward phone banking were solely predicted by perceived usefulness. Curran and Meuter (2005) also noted that about 40% of respondents were unaware of the existence of Telebanking which was introduced by their banks; it was revealed that Telebanking was the second adopted banking technology next to

ATMs. Besides, Curran et al. (2003) and Curran and Meuter (2005) found out that customers' attitudes toward Telebanking are significantly correlated with customers' penchant to adopt it. More recently, Alikhani et al. (2013) have formulated perceived risk alongside TAM factors. Alikhani et al. (2013) empirically supported the negative influence of perceived risk on the customers' intention to use Telebanking. In the same study, Alikhani et al. (2013) approved both perceived ease of use and usefulness to be key predictors of customers' perception, and ultimately, contributing to the behavioral intention toward this technology.

Kolodinsky et al. (2004) asserted that those customers who perceived phone banking as more useful, more compatible, and more observable would be strong candidates to adopt phone banking in the future. In addition, Kolodinsky et al. (2004) turned out a positive relationship between the likelihood of customers' acceptance of Telebanking and the extent of how much customers are involved with other types of SST channels. The theory of reasoned action (TRA) was proposed by Wan et al. (2005) to illustrate the customers' behavior toward different banking channels; they are traditional branches, ATM, Internet banking, and Telebanking. Wan et al. (2005) deliberated that Telebanking has the lower adoption rate compared to ATM and Internet banking. Furthermore, Wan et al. (2005) approved a meaningful relationship between adoption of Telebanking and demographic factors. In accordance with the same study, despite the fact that there was not a significant relationship between the customers' belief of convenience, user-friendliness, assurance, and informativeness with Telebanking adoption, Telebanking was found to be languishing behind the online banking channel in the terms of ease of use and the clarity of the service procedures. In Portugal, Martins et al. (2014) formulated UTAUT factors and perceived risk to predict the adoption of SST in the banking context (Internet banking). They found that performance expectancy, effort expectancy, and social influence were to be significant factors influencing customers' intention to adopt Internet banking.

Recently, Dimitriadis and Kyrezis (2011) illustrated that both customer trust on phone banking and customers' willingness to adopt phone banking are more likely to increase among customers who have further innovativeness along with an adequate level of knowledge and experience with smartphones. According to a comparison study among seven types of online banking channels conducted by Thornton and White (2001), acceptance of Telebanking was positively predicted by client's orientation toward aspects of change, technology, computer, knowledge, and

confidence. Also, Thornton and White (2001) noted that Telebanking was ranked in the third place after ATM and Internet banking in the terms of usage rate.

In India, Singh and Kaur (2013) reported that customers are more likely to be satisfied about the e-banking services (e.g. Telebanking) if they perceive these services to be much easier, more reliable, more convenient, more accessible, saving time and cost, and well-secured. Akhlaq and Ahmed (2013) strongly supported the impact of intrinsic motivation on customer trust which, in turn, positively enhances the customers' inclination to adopt Internet banking. According to Yu (2012) and Hanafizadeh et al. (2014), customers are less likely to accept Mobile banking if they perceive a higher monetary cost in comparison with other traditional channels. Perceived risk also has been commonly observed as a negative factor hindering the customers' tendency to adopt SST banking technologies; for example, Mobile banking (Akturan and Tezcan, 2012; Hanafizadeh et al., 2014; Purwanegara et al., 2014; Yuan et al., 2014). Earlier, Lockett and Littler (1997) demonstrated that the main factor hindering the UK banking customers to adopt phone banking was perceived risk.

Demographic factors, namely income and education level, were reported as key factors determining the acceptance of Telebanking in Saudi Arabia (Al-Ashban and Burney, 2001). Similar findings have been recently reached by Proença and Rodrigues (2011) who asserted that there are significant differences between the users and non-users of SST banking services (e.g. Telebanking) in the terms of age, gender, and income level. Technology anxiety and demographic factors were key predictors of usage of voice interactive technology (e.g. phone banking) as found by Meuter et al. (2003). Furthermore, Meuter et al. (2003) noted that technology anxiety considerably reflected on the consequences of using this technology such as word of mouth and customer satisfaction. Other factors such as lower fees, a sophisticated service level, time-saving, and perceived risk were identified as the most influential factors enhancing or mitigating the adoption of Telebanking (Howcroft et al., 2002). Howcroft et al. (2002) also indicated that the aspects relating to the degree of complexity and equipment accessibility derived less attention in the case of Telebanking in comparison to Internet banking.

Nevertheless, regarding the Jordanian banking context, Telebanking has only been examined from the banking perspective (Azzam and Alramahi, 2010; Migdadi, 2012). Indeed, Migdadi (2012) was looking at the impact of three types of online banking: Internet banking, phone



banking, and mobile banking on the operation strategies of branches over time extending from 1999 to 2008. Azzam and Alramahi (2010) also empirically tested how the employment of several types of SSTs (e.g. Telebanking, Internet banking) can contribute to the performance of marketing activities conducted by Jordanian banks. While the adoption of Mobile banking and Internet banking has driven a little interest by prior studies in Jordan (Abu-Shanab et al., 2010; Awwad and Ghadi, 2010), the Jordanian customers' intention and adoption of Telebanking has never been tested by previous literature in the country. Thus, in an attempt to fill this important gap, this study initially intends to select a suitable theoretical foundation that will guide a conceptual model as well as being able to provide a clearer picture regarding the customers' intention and adoption of Telebanking from the Jordanian customers' perspective.

### **2.1 Extending the Unified Theory of Acceptance and Use of Technology (UTAUT2)**

A closer look at prior studies pertaining to Telebanking led to the conclusion that most theories and models used were originally proposed in an organizational context (e.g. TPB, TAM, TRA, and UTAUT) which, in turn, mitigated their applicability in the customers' context (Venkatesh et al., 2012). Therefore, due to the variance between the customers and the organizational context in terms of which and how factors can form the individual intention towards technology, there is always a need to select the theoretical foundation that will fit within the customers' context (Venkatesh et al., 2012). As for the current study aim, the theoretical framework selected should be able to cover the main aspects related to the adoption of Telebanking as modern technology. These aspects include: technology features (e.g. simplicity degree); psychological and perceptual factor (e.g. intrinsic motivation, perceived risk); social influences (e.g. reference group, family); and external environment (facilitating conditions, resources, skills).

Later in 2012, Venkatesh et al. successfully enlarged their prior model (UTAUT) by way of including three new factors: hedonic motivation, price value and habit in a new model entitled UTAUT2. Based on empirical evidences from Venkatesh et al. (2012), UTAUT2 was able to account for a large proportion of variance in both intention (74%) and actual usage behaviour (52%). Owing the fact that UTAUT2 is specifically hypothesised to clarify technology acceptance from the customers' perspective (Venkatesh et al., 2012), UTAUT2 is deemed to be an appropriate ground theory to conceptualise the conceptual model of the current study. UTAUT2 has actually extended the prior model of Venkatesh et al.'s (2003) UTAUT which was attributed as the most parsimonious, inclusive, and predictive model explaining technology

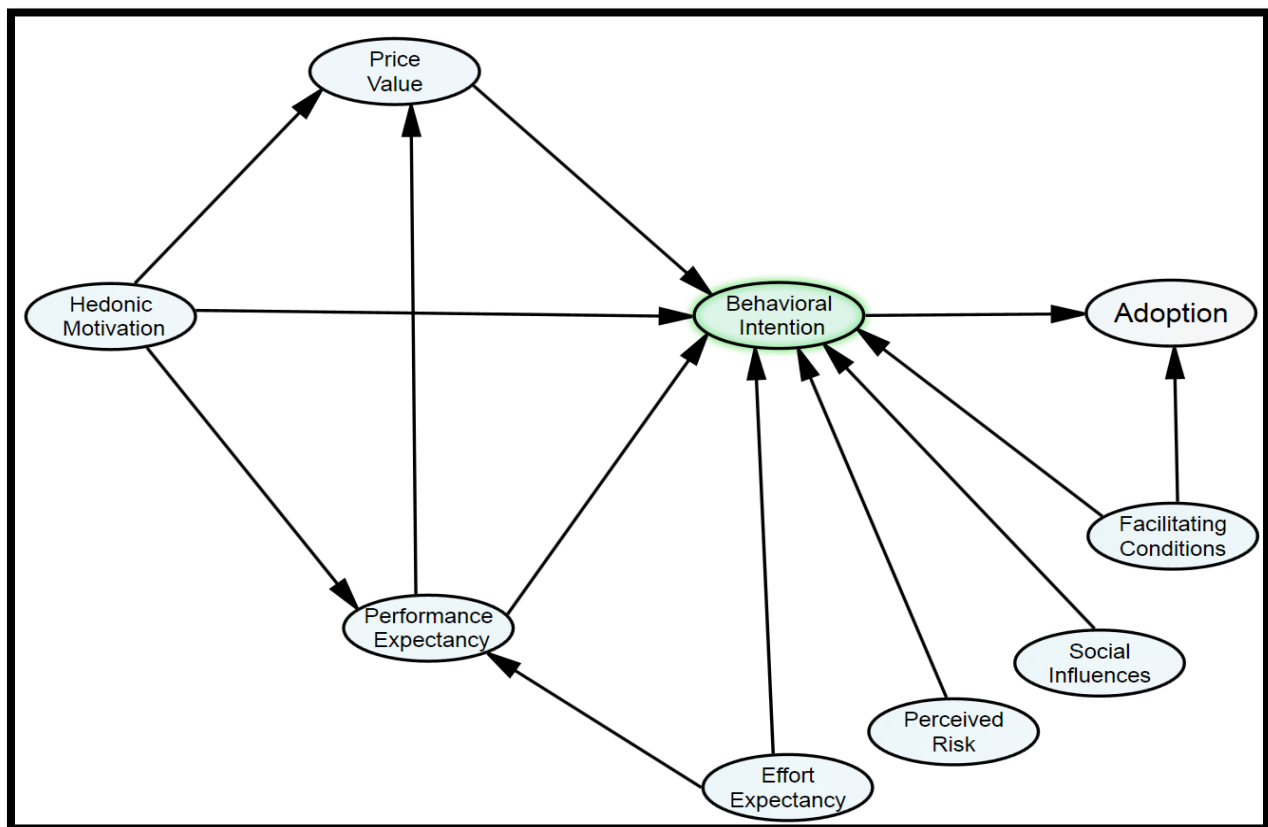
acceptance (Bagozzi, 2007). Another reason behind the selection of UTAUT2 is that the main constructs of UTAUT2 (e.g. performance expectancy, effort expectancy, hedonic motivation) or related factors (such as: perceived usefulness, perceived enjoyment, and perceived behavioural control) were commonly identified and recognised as key factors determining the customers' intention and adoption of SSTs (Abu-Shanab et al., 2010; Alalwan et al., 2013; Alalwan et al., 2014; Dabholkar et al., 2003; Dwivedi et al., 2011; Eriksson et al., 2005; Gan et al., 2006; Lin and Hsieh, 2011; Zhou et al., 2010).

However, there are other important constructs such as perceived risk that were not included by Venkatesh et al. (2012). More importantly, according to prior SST literature, perceived risk has been extensively recognised as a crucial predictor of behavioural intention (Jaruwachirathanakul and Fink, 2005; Kolodinsky et al., 2004; Meuter et al., 2003; Rexha et al., 2003). Hence, perceived risk was included along with UTAUT2 constructs in the same conceptual model. Noteworthy, the interactions and relationships between the main antecedences of behavioral intention also calls for further examination such as how could intrinsic or extrinsic motivators contribute to price value or how can intrinsic motivation accelerate the performance expectancy? Therefore, this study will modify the new relationships among UTAUT2 constructs and will be discussed in the proposed model and research hypotheses in the following section.

It is also worth noting that even though habit was proposed as a key construct by Venkatesh et al. (2012) in UTAUT2, habit has been excluded from the conceptual model of the current study. In essence, regarding the Jordanian context as a developing country, banking self-service technologies could be considered in its infancy coupled with the fact that the awareness and adoption of these technologies are still low (Alalwan et al., 2014; Al-Rfou, 2013; Awwad and Ghadi, 2010; Salhieh et al., 2011). Therefore, Jordanian customers still do not have the full experience and accumulative knowledge which will enable them to form a habitual behaviour towards these technologies. More importantly, the current study focuses on potential users who have not yet used Telebanking and actual users who have already used or had experience with Telebanking; unlike Venkatesh et al. (2012) who proposed that habit would predict a continued (future) intention and actual usage for the current technology users.

### 3. Conceptual Model and Hypotheses Development

As mentioned before, UTAUT2 was selected as a guiding theory to propose the conceptual model. As seen in Figure 1, the UTAUT2 factors of performance expectancy (PE), effort expectancy (EE), social influences (SI), facilitating conditions (FC), hedonic motivation (HM), and price value (PV) were proposed as direct determinants of customers' intention to adopt Telebanking. In keeping with Venkatesh et al. (2012), two factors (behavioural intention and facilitating conditions) were identified as key predictors of the adoption of Telebanking. Perceived risk as an external factor was conceptualised as a direct factor impacting on behavioural intention. Besides, price value is supposed to be predicted by both hedonic motivation and performance expectancy as well. On the other side, both hedonic motivation and effort expectancy were theorised as a direct determinant of performance expectancy. Further clarification of these factors and hypotheses' development are presented below.



**Figure 1: Proposed Conceptual Model of the Behavioural Intention and adoption of Telebanking by Jordanian Banking Customers (Source: Adapted from Featherman and Pavlou, 2003; Venkatesh et al., 2012)**

### **3.1 Performance Expectancy (PE)**

Performance expectancy can be conceptualised as the benefits and utilities (e.g. saving time and effort, efficiency, convenience) that could be attained from using Telebanking (Venkatesh et al., 2003). Theoretically, performance expectancy has been examined at the context of Telebanking in terms of perceived usefulness and relative advantages (Curran and Meuter, 2005; Liao et al., 1999; Sundarraj and Wu, 2005). Broadly speaking, several online banking studies have assured that performance expectancy or its related factors such as relative advantages and perceived usefulness are identified as key determinants of customers' intention to adopt several types of SST banking channels (Abu-Shanab et al., 2010; Curran and Meuter, 2005; Eriksson and Nilsson, 2005; Liao et al., 1999; Martins et al., 2014; Riffai et al., 2012; Sundarraj and Wu, 2005). Also important, Venkatesh et al. (2012) argued that customers are usually involved in a rational comparison process between the extent of benefits and utilities obtained by using technology compared with the monetary cost paid to use technology from another side, meaning that further benefits and utilities perceived by customers are leading to a higher price value of technology (Sheth et al., 1991). This assumption was strengthened by Ho and Ko (2008) who empirically approved that customers' perceived value of self-service technology is positively associated with perceived usefulness. Therefore, this study articulates the following hypotheses:

***H1: Performance expectancy will positively influence Jordanian customers' intention to adopt Telebanking.***

***H2: Performance expectancy will positively influence price value related to using Telebanking.***

### **3.2 Effort Expectancy (EE)**

Effort expectancy represents the extent of customers' perceptions of the ease or difficulty of using Telebanking (Venkatesh et al., 2003). Effort expectancy or its captured factors such as complexity degree and perceived ease of use have been widely documented as key predictors of behavioral intention toward SST (Chiu et al., 2010; Liao et al., 1999; Wang and Shih, 2009). Furthermore, due to the particular nature of online banking channels which require a certain level of knowledge and skill, effort expectancy could play a crucial role in determining the customers' intention to adopt these technologies. In addition to this, as theorized by Davis et al. (1989),

perceived ease of use could contribute to the customers' willingness to use technology indirectly by facilitating the role of perceived utilities of using technology. In other words, customers who perceive using Telebanking because it simple, easy and requires less effort are more likely to have a positive value regarding this technology. This has been empirically supported in the context of online banking by many studies (Amin, 2007; Celik, 2008; Eriksson et al., 2005; Kim and Forsythe, 2010; Sundarraj and Wu, 2005; Wang et al., 2003). Thus, this study proposes that:

***H3: Effort expectancy will positively influence Jordanian customers' intention to adopt Telebanking.***

***H4: Effort expectancy will positively influence performance expectancy.***

### **3.3 Social Influences (SI)**

In accordance with Venkatesh et al. (2003, p.450), social influence is characterised “as the extent to which an individual perceives that important others believe he or she should apply the new system.” Regarding Telebanking technology, social influences are concerned with impacting a role of social environment (e.g. family, opinion leaders, friends, colleagues, and friends) on the customers' intention to use Telebanking (Abu-Shanab et al., 2010; Gelderman et al., 2011; Zhou et al., 2010). Several studies have examined the important role of social influences in the SST context (Alalwan et al., 2013). For instance, empirical results from Wang and Shih (2009) and Chiu et al. (2010) demonstrated that behavioural intention to adopt kiosk technology is statistically affected by the role of social influences. Previous researches pertained to online banking channels such as Abu-Shanab et al. (2010), Martins et al. (2014), Yeow et al. (2010) and Yu (2012) noted that social influences are key drivers of behavioural intention. Thus, this study postulates the next hypothesis:

***H5: Social influences will positively influence Jordanian customers' intention to adopt Telebanking.***

### **3.4 Facilitating Conditions (FC)**

Facilitating conditions are defined as “the degree to which an individual believes that an organizational and technical infrastructure exist to support the use of the system” (Venkatesh et al., 2003, p.453). Importantly, using online banking channels such as Telebanking usually have need of special support facilities (e.g. skill, resources, and technical infrastructure) so as to

effectively apply and access these technologies (Celik, 2008; Martins et al., 2014; Ramayah and Ling, 2002; Riffai et al., 2012; Sathye, 1999; Yeow et al., 2010). These facilities are not usually free at customer context; hence, they could have a direct impact on the customer's intention to adopt technology as proposed by Venkatesh et al. (2012). Therefore, facilitating conditions could be a direct factor in determining the customers' intention to adopt Telebanking as proposed by Venkatesh et al. (2012) in addition to their pivotal role as a direct influence of adoption of Telebanking as stated by Ajzen (1991). Several academic studies have argued that the role of facilitating conditions impacted either on the customers' intention or on the actual usage behaviour toward SSTs (Celik, 2008; Dabholkar and Bagozzi, 2002; Wang et al., 2003; Wu and Wang, 2005; Yeow et al., 2010). Hence, the forthcoming hypotheses postulated that:

***H6: Facilitating conditions will positively influence Jordanian customers' intention to adopt Telebanking.***

***H7: Facilitating conditions will positively influence Jordanian customers' adoption of Telebanking.***

### **3.5 Hedonic Motivation (HM)**

Hedonic motivation is conceptualized as the feeling of cheerfulness, joy, and enjoyment which is stimulated by applying technology (Venkatesh et al., 2012). Theoretically, these factors have been identified as critical predictors of the customers' intention and adoption over the marketing and information system area (Brown and Venkatesh, 2005; Davis et al., 1992; Riffai et al., 2012; Shamdasani et al., 2008; Venkatesh, 1999). Over the SST context, perceived enjoyment and fun have been recognised as one of the most influential factors predicting customers' intention to adopt different types of SSTs (Dabholkar and Bagozzi, 2002; Dabholkar et al., 2003; Esman et al., 2010; Gan et al., 2006; Lee et al., 2011; Lin and Hsieh, 2011; Riffai et al., 2012).

In accordance with Celik (2008), customers who perceive using the technology that comprises of fun, playfulness, and enjoyment would be more willing to spend a longer time in using this technology. Thus, they are more likely to perceive using this technology in a more productive manner which requires less effort, and hence, will contribute to value perceived by using such a system (e.g. performance expectancy, price value) (Barua and Whinston, 1996; Cheng et al., 2006; Moon and Kim, 2001; Venkatesh, 2000). This has been sustained by Agarwal and Karahanna (2000) who empirically supported the role of cognitive absorption (as an intrinsic

variable) in enhancing the perceived usefulness. On the same line, Cheng et al. (2006) provided empirical evidence confirming the positive impact of playfulness as an intrinsic motivation on perceived usefulness that was related to Internet distribution channels in Taiwan. Further evidence from Barua and Whinston (1996) supported the positive role of perceived playfulness in contributing efficiency and value perceived in using the technology. Therefore, if hedonic motivation of using Telebanking is high, the overall benefits perceived by using this technology will increase, and accordingly, that will contribute to either the performance expectancy or the price value of using Telebanking (Dodds et al., 1991; Venkatesh et al., 2012). Therefore, the following hypotheses are:

***H8: Hedonic motivation will positively influence Jordanian customers' intention to adopt Telebanking.***

***H9: Hedonic motivation will positively influence the price value of using Telebanking.***

***H10: Hedonic motivation will positively influence the performance expectancy of using Telebanking.***

### **3.6 Price Value (PV)**

Price value is theorized as a “consumer’s cognitive trade-off between the perceived benefits of the application and the monetary cost for using it” (Venkatesh et al., 2012, p.161). Instead of the employee context where the cost concept could be restricted in the terms of time and effort, customers are more than likely to be sensitive to the financial issues that could form their willingness to accept or reject new products and technologies (Mallat et al., 2008). Generally speaking, building on the marketing perspective, perceived value is usually identified by how the customer cognitively compares between how much he should pay and how many benefits are obtained from using this technology (Sheth et al., 1991). This means that if the utilities are obtained from using Telebanking are higher than the financial cost, the price value will be positive and, consequently, the customers are more likely to be motivated to adopt this application (Venkatesh et al., 2012). The impacting role of service value in general and price value on the customers’ intention has been argued widely over the SST studies (Ding et al., 2007; Ho and Ko, 2008; Lee and Allaway, 2002; Sathye, 1999). Consequently, this study proposes that:

***H11: Price value will positively influence Jordanian customers' intention to adopt Telebanking.***

### **3.7 Perceived Risk (PR)**

Perceived risk is defined as “the likelihood of a customer suffering a loss in pursuit of the favored consequences of applying technology” (Featherman and Pavlou, 2003). Owing to the high uncertainty, intangibility, heterogeneity and vagueness attributed to the online banking area along with the absence of human interaction, perceived risk could play a crucial role in hindering the customers' tendency to adopt online banking channels (Curran and Meuter, 2005; Cruz et al., 2010; Eriksson et al., 2008; Flavián et al., 2006; Jaruwachirathanakul and Fink, 2005; Kolodinsky et al., 2004; Meuter et al., 2003; Rexha et al., 2003). In fact, customers experience different kinds of risk such as performance, social, financial, psychological, and privacy risk which makes the impacting role of perceived risk on behavioural intention more complicated (Featherman and Pavlou, 2003; Wang et al., 2003; Wu and Wang, 2005). Moreover, customers are more apprehensive about a breakdown in communication networks which, in turn, allows customers to be more hesitant in accepting online banking channels (Kuisma et al., 2007; Poon, 2008). Therefore, perceived risk has been broadly argued as a negative predictor of the customers' intention and adoption of SSTs that have been introduced into the banking context (Jaruwachirathanakul and Fink, 2005; Kolodinsky et al., 2004; Meuter et al., 2003; Rexha et al., 2003). Hence, this study postulates the following hypothesis:

***H12: Perceived risk will negatively influence on Jordanian customers' intention to adopt Telebanking.***

### **3.8 Behavioural Intention (BI)**

According to Venkatesh et al. (2003) and Venkatesh et al. (2012), behavioural intention is defined as the extent and tendency of customers adopting Telebanking. Behavioural intention has been examined constantly and confirmed as the most powerful determinant of individual behaviour over the technology acceptance stream (Ajzen, 1991; Venkatesh et al., 2003; Venkatesh et al., 2012). Furthermore, prior SST literature has strongly supported customer intention as a decisive driver of the customer adoption of SST (e.g. Jaruwachirathanakul and Fink, 2005; Kim and Forsythe, 2010; Shih and Fang, 2004). Therefore, this study conceptualises



the behavioural intention as a decisive construct between the main antecedent constructs and customer adoption of Telebanking. Accordingly, this study formulates the following hypothesis:

***H13: Customer intention will positively influence the customer adoption of Telebanking.***

#### **4. Methodology**

In total, thirty-eight scale items were adapted from prior information system literature to measure the underlying constructs. The main constructs of UTAUT2 (PE, EE, SI, FC, HM, PV, and BI) were measured by items adapted from Venkatesh et al. (2012). These items were used by Venkatesh et al. (2012) in their study to validate UTAUT2. Further, items of PE, EE, SI, FC, and BI were originally proposed by Venkatesh et al. (2003) in validating the original version of UTAUT. In line with UTAUT2, the current study also used the same items adapted by Venkatesh et al. (2012) to measure HM and PV. The items for perceived risk were drawn from Featherman and Pavlou (2003). The Featherman and Pavlou's (2003) scale covers the main dimensions of perceived risk (e.g. performance risk, financial risk, privacy risk, and social risk); this scale has also been adapted by several studies in the same area of interest (e.g. Al-Smadi, 2012; Celik, 2008; Lee, 2009; Luo et al., 2010; Mallat et al., 2008; Martins et al., 2014). The seven-point Likert scale was used to measure these items with anchors ranging from strongly agree to strongly disagree. All construct' items are presented in Appendix 1, Table 1. The adoption of Telebanking was measured by a matrix comprising of six common financial services provided by the Jordanian banks along with the frequency of using these services with seven-point anchors including: never, once a year, several times a year, once a month, several times a month, several times a week, several times a day (Venkatesh et al., 2012). These services are presented in Appendix 1, Table 1. Six closed ended questions were devoted for demographic variables: age, gender, income, education level, Internet experience, and computer experience.

Due to the fact that there is no list available regarding the customers of Jordanian banks as well as banks preventing any information regarding their customers for privacy and security reasons, it was difficult to conduct a random sample approach (Choudrie and Dwivedi, 2005; Dwivedi et al., 2006). Furthermore, the community of Jordanian banking customers is quite large and spread within a wide geographical area. Therefore, a more applicable and cost-effective sampling approach (convenience sampling) was selected to collect the required data from Jordanian banking customers. It should be noted that even though convenience sampling is criticised in the

terms of generalizability and representativeness (Bhattacharjee, 2012), there are several instances in the area of SST that have used the convenience sampling approach to obtain credible results (e.g. Curran and Meuter, 2005; Curran and Meuter, 2007; Dean, 2008; Lee, 2009; Lee et al., 2009; Robertson et al., 2009; Simon and Usunier, 2007; Zhou et al., 2010). So as to address the issues related to convenience sample generalizability and to reduce the bias level in the statistical findings, researchers were also keen to use a large sample size (500 respondents) to consider the diversity in the customers' profiles and characteristics from different places (Miller et al., 2002).

In order to avoid any concern regarding the responses bias, all items were adapted from valid and established scales as discussed above (Featherman and Pavlou, 2003; Venkatesh et al., 2012). Also, researchers were keen to use a clear, short enough, accurate, and understandable language devoid from contradictions and repetitions (Bhattacharjee, 2012). Further, because this study was conducted in Jordan where Arabic is the native language, a translation and back translation between Arabic and English was conducted by credible translators to overcome the impact of cultural and language differences (Brislin, 1976). The Arabic version of the questionnaire was then judged by a panel of experts (fluent in Arabic and English) who supported the scale validity, yet, they mentioned the necessity of rephrasing a few words or statements in order to obtain a clearer manner.

A pilot study was carried out with 30 questionnaires distributed to Jordanian banking customers who were asked to provide any notes regarding any problems and confusions existing in the questionnaire. Their notes assured that the language used was simple and clear; and in addition to that, the questionnaire length was suitable. Moreover, an examination of scale reliability using Cronbach's alpha indicated that all underlying constructs had alpha values exceeding their cut-off value: .70 (Nunnally, 1978). This, in turn, demonstrated that measures adopted were able to have an acceptable level of internal consistency and adequately satisfied the reliability criteria.

Then, a field survey questionnaire was conducted to obtain the required data from a convenience sample of 500 Jordanian banking customers in two cities in Jordan (Amman and Al-Balqa') during the months of June, July and August 2013. Of the 500 questionnaires distributed, 323 returned questionnaires (64%) that were found valid and they, therefore, were subjected to further statistical analyses. The sample description showed that a segment of respondents (about 69%) were in the younger age group ranging between 25 to 40 years old. About 65% of the

respondents were male, while 35% of the respondents were female. Close to 50% of the respondents have a middle income ranging from 400JOD to 800JOD. The largest part of the respondents were those with a well-educated level (90% of the respondents have a Bachelor's Degree or above). About 85% and 82% of the respondents have more than three years' experience with a computer and Internet respectively.

## 5. Findings

### 5.1 Descriptive Statistics of Measurement Items

As summarised in Table 1, the descriptive statistics illustrate that all items of performance expectancy shared average mean scores of 5.40 ( $\pm 1.34$ ). Table 1 also shows that the average mean scores shared between effort expectancy items was 5.51 ( $\pm 1.24$ ). The average mean score for all social influence items was 4.92 ( $\pm 1.44$ ). All facilitating condition items had an average mean score of 5.17 ( $\pm 1.24$ ). The average mean rating for all items of hedonic motivation was 4.94 ( $\pm 1.47$ ). The average mean score for the three items of price value was 4.96 ( $\pm 1.26$ ). The average mean rating for all seven items of perceived risk was 3.54 ( $\pm 1.55$ ). According to the statistical descriptions of behavioural intention, the average mean score for all behavioural intention items was 5.15 ( $\pm 1.34$ ).

**Table 1: Descriptive Statistics (Mean and Standard Deviation) Measurement Items**

Constructs	Item	Mean	Standard Deviation
Performance Expectancy	PE1	5.50	1.33
	PE2	5.46	1.24
	PE3	5.45	1.38
	PE4	5.22	1.41
	<b>Average</b>	5.40	1.34
Effort Expectancy	EE4	5.53	1.22
	EE2	5.52	1.25
	EE3	5.51	1.24
	EE1	5.48	1.27
	<b>Average</b>	5.51	1.24
Social Influences	SI1	4.94	1.44
	SI2	4.91	1.48
	SI3	4.91	1.40
	<b>Average</b>	4.92	1.44
Facilitating Conditions	FC2	5.54	1.21
	FC1	5.41	1.24
	FC3	5.41	1.29
	FC4	5.34	1.23
	<b>Average</b>	5.17	1.24
Hedonic Motivation	HM1	5.10	1.43

	HM2	5	1.47
	HM3	4.81	1.51
	<b>Average</b>	4.94	1.47
<b>Price Value</b>	PV3	5	1.21
	PV2	4.95	1.33
	PV1	4.94	1.25
	<b>Average</b>	4.96	1.26
<b>Perceived Risk</b>	PR5	3.97	1.75
	PR7	3.67	1.36
	PR3	3.56	1.55
	PR2	3.44	1.45
	PR6	3.44	1.56
	PR4	3.42	1.52
	PR1	3.36	1.42
	<b>Average</b>	3.54	1.55
<b>Behavioural Intention</b>	BI4	5.28	1.30
	BI1	5.15	1.41
	BI3	5.11	1.34
	BI2	5.08	1.32
	<b>Average</b>	5.15	1.34

## 5.2 Descriptive Analysis of Adoption Telebanking Services

Table 2 summarizes some key information regarding the current usage patterns of the six Telebanking services. As seen in Table 2, balance enquiries were the most frequently used Telebanking service by sample respondents. Indeed, of the 323 valid responses, 102 (32%) reported that they have used Telebanking for balance enquiries several times a week. However, 74 of the respondents (22%) have never used Telebanking for balance enquiries. Paying bills was the second most widely used Telebanking service. Seventy-five of respondents (23%) mentioned that they have used Telebanking to pay bills once a month while 102 (32%) valid responses stated that they have never used Telebanking to pay bills (see Table 2). The third most used Telebanking service by respondents was requesting a cheque book or bank certificates. Even though 145 (45%) of respondents mentioned that they have never conducted these services via the Telebanking channel, 93 (29%) [62 + 31] of the respondents did indicate that they have employed Telebanking to receive these services about once a month or several times a year. As summarized in Table 2, although 58 (18%) and 65 (20%) of the respondents claimed that they have used Telebanking to transfer funds several times a year or once a year respectively, many more respondents (138; 43%) have never transferred any amount of money via Telebanking. A few respondents have used Telebanking for payment of installments of loans and mortgages (e.g. 41 (13%) of respondents have used Telebanking for these services once a year). Yet, many more

of the respondents (210; 65%) mentioned that they have never used Telebanking for the payment of installments of loans and mortgages (see Table 2). Requesting an increase in a credit card(s) limit or to pay any balance that was due was the least used of the Telebanking services; the largest number of respondents (195; 60%) have never used these services (see Table 2).

**Table 2: Descriptive statistics (Frequency and Percentage) of Telebanking Services adoption**

<b>Constructs</b>	<b>Frequency of Use</b>	<b>Number of Respondents (323)</b>	<b>Percentage (%)</b>
<b>Balance Enquiries</b>	Never	74	22.9
	Once a year	22	6.8
	Several times a year	22	6.8
	Once a month	43	13.3
	Several times a month	58	18
	Several times a week	102	31.5
	Several times a day	2	0.6
<b>Funds Transfer</b>	Never	138	42.7
	Once a year	65	20.1
	Several times a year	58	18
	Once a month	33	10.2
	Several times a month	16	5
	Several times a week	11	3.4
	Several times a day	2	.6
<b>Requesting a Cheque book or Bank Certificates</b>	Never	145	44.9
	Once a year	49	15.2
	Several times a year	31	9.6
	Once a month	62	19.2
	Several times a month	27	8.4
	Several times a week	9	2.7
	Several times a day	0.00	0.00
<b>Paying Bills</b>	Never	102	31.6
	Once a year	30	9.3
	Several times a year	35	10.8
	Once a month	75	23.2
	Several times a month	69	21.4
	Several times a week	12	3.7
	Several times a day	0.00	0.00
<b>Request increase in credit card(s) limit or pay any balance due</b>	Never	195	60.4
	Once a year	61	18.9
	Several times a year	40	12.4
	Once a month	18	5.6
	Several times a month	7	2.2
	Several times a week	2	.6
	Several times a day	0.00	0.00
<b>Payments of loan and mortgage instalments</b>	Never	210	65
	Once a year	41	12.7

	Several times a year	24	7.4
	Once a month	39	12.1
	Several times a month	9	2.8
	Several times a week	0.00	0.00
	Several times a day	0.00	0.00

### 5.3 Structural Equation Modeling Analysis

The structural equation modeling (SEM) was selected as a suitable statistical approach to analyze the empirical data (Byrne, 2010). By running AMOS21, the model fitness and constructs' reliability and validity were assessed in stage one (the measurement model) by means of confirmatory factor analyses (CFI) with maximum likelihood estimates (ML) (Byrne, 2010). Then, the research hypotheses were tested in the second stage: structural model (Hair et al., 2010).

#### 5.3.1 Measurement Model Analysis

As shown in Table 3, the preliminary measurement indices were found as follow: CMIN/DF was 3.10 ( $\leq 3.000$ ), GFI = 87.2% ( $\geq 90\%$ ), AGFI= 79.5% ( $\geq 80\%$ ), NFI= 92.5% ( $\geq 0.900$ ), CFI= 94.7% ( $\geq 0.900$ ), and RMSEA= 0.084 ( $\leq 0.080$ ). Having a closer look at some of the fit indices such as GFI, CMIN/DF, and RMSEA, the model seems to have a poor fit, and therefore, there is room for some re-specifications and purification (Anderson and Gerbing, 1988; Bagozzi and Yi, 1988).

**Table 3: Results of Measurement Model**

Fit indices	Cut off point	Initial measurement model	Modified measurement model
<b>CMIN/DF</b>	$\leq 3.000$	3.10	2.025
<b>GFI</b>	$\geq 90\%$	87.2%	90.4%
<b>AGFI</b>	$\geq 80\%$	79.5%	85.8%
<b>NFI</b>	$\geq 90\%$	92.5%	94.1%
<b>CFI</b>	$\geq 90\%$	94.7%	96.9%
<b>RMSEA</b>	$\leq 0.08$	0.084	0.058.

Fundamentally, a refinement process followed a number of criteria to enhance the model's fitness including inspection of standardized regression weights (factor loading), modification

indices, and standardized covariance matrix as suggested by Byrne (2010). By scanning the AMOS output files, twelve items in the scale measurement (two items of PR; one item of PE, one item of EE, one item of HM, one item of FC, one item of PV, one item of BI, one item of SI, and three items of adoption) were found as redundant items and, therefore, a decision was taken to remove them. By doing so, the confirmatory factor analyses were tested again. The yielded fit indices indicated that the goodness of fit of the modified model was adequately improved; all the fit indices this time were found within their recommended level as such: CMIN/DF was 2.025, GFI= 90.4%, AGFI= 85.8%, NFI= 94.1%, CFI= 96.9% and RMSEA= 0.058 (see Table 3). Accordingly, the modified measurement model was able to sufficiently satisfy the criteria of model fitness to the observed data (see Table 3) (Anderson and Gerbing, 1988; Byrne, 2010).

### ***Construct Reliability and Validity***

Scale reliability and validity were also assessed by looking at composite reliability, convergent validity, and discriminant validity (Hair et al., 2010). As seen in Table 4, the generated value of composite reliability ranged from 74% to 96%, explaining good acceptable reliability due to its cut-off point of 70% as suggested by Hair et al. (2010). Also, convergent validity was inspected via both standardized regression weight (factor loading) with a cut-off value higher than 0.50 as well as an average variance extracted (AVE) with a level as low as 0.50 (Hair et al., 2010). Statistical findings indicated that all unremoved items had a factor loading higher than .50 ranging from .59 to .98. The AVE for all constructs also remained within the threshold level that ranged from 60% to 91% (see Table 4). Moreover, the squared root of the AVE for each factor was higher than the square of correlation estimates with other factors (see Table 5); hence implying that the latent constructs reached the acceptable level of discriminant validity (Hair et al., 2010; Fornell and Larcker, 1981).

**Table 4: Constructs Reliability and Validity**

<b>Latent Constructs</b>	<b>Composite Reliability (CR)</b>	<b>Average Variance Extracted</b>	<b>Square Roots of AVE</b>
<b>PE</b>	93%	83%	93%
<b>EE</b>	96%	91%	95%
<b>SI</b>	78%	65%	80%
<b>FC</b>	74%	60%	77%

<b>HM</b>	84%	73%	85%
<b>PV</b>	90%	81%	90%
<b>PR</b>	90%	75%	87%
<b>BI</b>	91%	84%	92%
<b>Adoption</b>	80%	68%	82%

**Table 5: Discriminant Validity**

Latent Constructs	PE	EE	SI	FC	HM	PV	PR	BI	Usage
<b>PE</b>	<b>.93</b>								
<b>EE</b>	.67	<b>.95</b>							
<b>SI</b>	.61	.46	<b>.80</b>						
<b>FC</b>	.63	.59	.46	<b>.74</b>					
<b>HM</b>	.61	.48	.58	.66	<b>.93</b>				
<b>PV</b>	.68	.41	.66	.60	.71	<b>.90</b>			
<b>PR</b>	-.27	-.10	-.50	-.19	-.35	-.35	<b>.87</b>		
<b>BI</b>	.80	.60	.58	.68	.72	.72	-.37	<b>.89</b>	
<b>Usage</b>	.57	.40	.39	.48	.50	.50	-.20	.69	<b>.82</b>

**Note:** Diagonal values are squared roots of AVE/off-diagonal values are the estimates of inter-correlation between the latent constructs.

### *Common Method Bias Test*

To make sure that the data set is free of common method bias, an inspection of Harman's single-factor with nine constructs (PE, EE, SI, FC, HM, PV, PR, BI, and adoption) and 26 scale items was conducted (Harman, 1976; Podsakoff et al., 2003). All the items were loaded into the exploratory factor analysis and examined by using an unrotated factor solution. The statistical results in this respect indicated that no single factor was able to emerge as well as the first factor was able to which accounted for 44.031 per cent of variance which is less than the cut-off value of 50 per cent as suggested by Podsakoff et al. (2003). Thus, the data set of Telebanking does not have any concerns regarding the common method bias.



### 5.3.2 Structural Model Analyses

Given that the adequate measurement model fitness was established along with the acceptable level of constructs' validity and reliability, the structural model was then examined to test the research hypotheses and validate the conceptual model (Anderson and Gerbing, 1988). By running AMOS 21, an inspection of the structural model was conducted with thirteen causal paths (see Figure 1). The fit indices of the structural model were found within their threshold value as such: CMIN/DF was 2.271, GFI= 90.1%, AGFI= 85.5%, NFI= 93.5%, CFI= 96.2%, and RMSEA= 0.063. Thus, it demonstrated that the structural model adequately fitted the data. Moreover, as seen in Figure 2, the statistical outcomes largely supported the conceptual model via explaining 75%, 48%, 57%, and 61% of variance in behavioural intention, adoption behaviour, performance expectancy, and price value respectively.

In the same line, an assessment of path coefficients showed that, as presented in Table 6, performance expectancy ( $\gamma=0.40$ ,  $p<0.000$ ); facilitating conditions( $\gamma=0.13$ ,  $p<0.039$ ); hedonic motivation ( $\gamma=0.21$ ,  $p<0.001$ ); price value ( $\gamma=0.17$ ,  $p<0.011$ ); and perceived risk ( $\gamma=-0.11$ ,  $p<0.010$ ) were all found as significant predictors of behavioral intention, and therefore, H1, H6, H8, H11, and H12 were supported. Both effort expectancy ( $\gamma=0.09$ ,  $p=0.083$ ) and social influences ( $\gamma=-0.05$ ,  $p=0.392$ ) did not have a significant path with behavioral intention which, in turn, led to a rejection of H3 and H5. Nevertheless, effort expectancy was recognised as a considerable determinant of performance expectancy ( $\gamma=0.47$ ,  $p<0.000$ ), therefore, accepting H4. Likewise, price value was significantly positive influenced by both hedonic motivation ( $\gamma=0.49$ ,  $p<0.000$ ) and performance expectancy ( $\gamma=0.37$ ,  $p<0.000$ ), hence H2 and H9 were confirmed. Furthermore, hedonic motivation ( $\gamma=0.40$ ,  $p<0.000$ ) had a significant influence on performance expectancy, therefore H10 was accepted. Regarding the paths ending to adoption behaviour, the only behavioural intention and adoption path was significant ( $\gamma=0.69$ ,  $p<0.000$ ) leading to confirm H13. While there was no significant relationship between facilitating conditions and adoption of Telebanking ( $\gamma=0.04$ ,  $p=0.843$ ), accordingly H7 was refused. In summary: out of thirteen hypotheses proposed, only ten hypotheses were confirmed; they were H1, H2, H4, H6, H8, H9, H10, H11, H12, and H13 whereas H3, H5, and H7 were rejected.

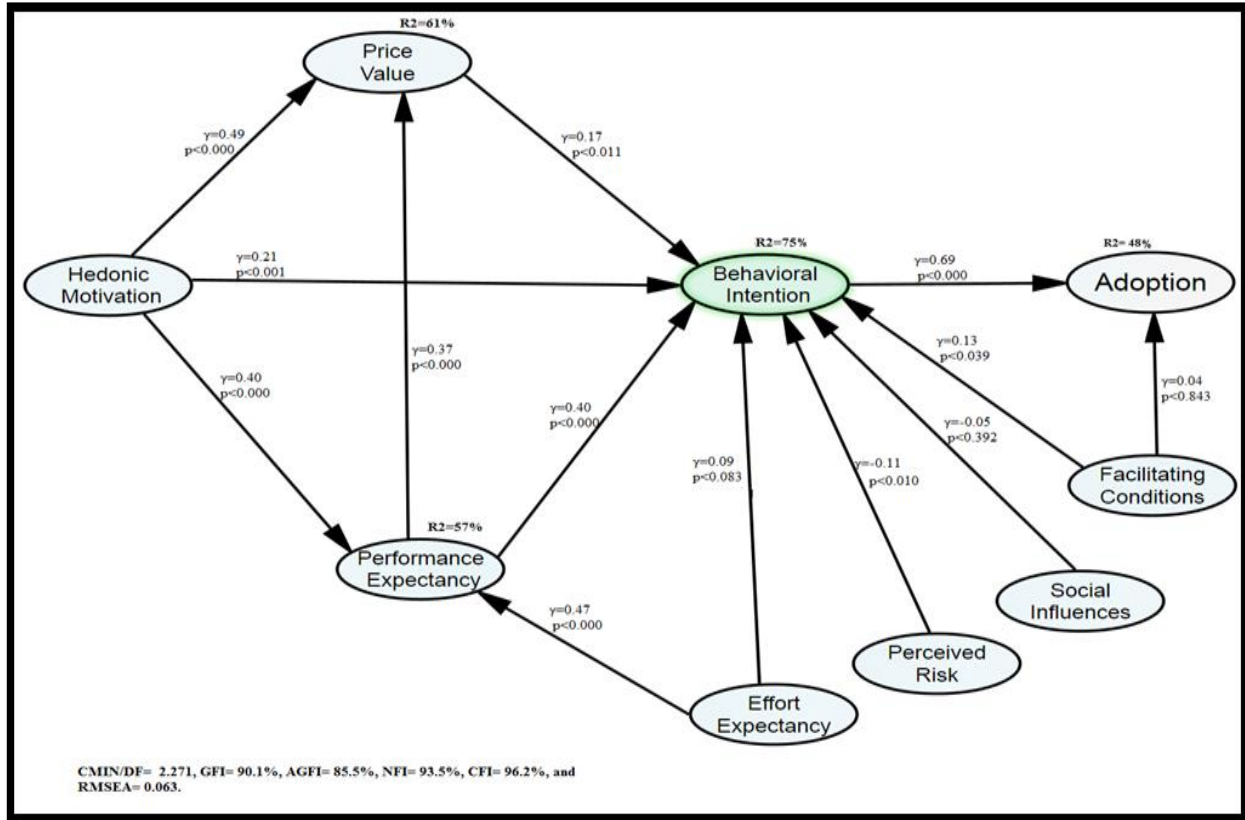


Figure 2 Validation of Structural Model

Table 6: Standardised Estimates (Hypothesised Model)

H#	Hypothesized path	Standardised estimate	Z-value	P-value	Hypotheses Support
H1	PE → BI	.40	6.259	***	Supported
H2	PE → PV	.37	6.658	***	Supported
H3	EE → BI	.09	1.734	.083	Non Supported
H4	EE → PE	.47	10.584	***	Supported
H5	SI → BI	-.052	-.856	.392	Non Supported
H6	FC → BI	.13	2.069	.039	Supported
H7	FC → Adoption	0.04	.198	.843	Non Supported
H8	HM → BI	.21	3.176	.001	Supported
H9	HM → PV	.50	8.754	***	Supported
H10	HM → PE	.40	8.469	***	Supported
H11	PV → BI	.17	2.544	.011	Supported
H12	PR → BI	-.10	-2.583	.010	Supported
H13	BI → Adoption	.69	9.620	***	Supported

CMIN/DF = 2.271, GFI= 90.1%, AGFI= 85.5%, NFI= 93.5%, CFI= 96.2%, and RMSEA= 0.063

## 6. Discussion

Broadly speaking, the empirical findings strongly supported the proposed model. As seen in Figure 2, the proposed model was able to account for 75% of variance in the behavioural

intention. Besides, about 48%, 57%, and 61% of variance accounted in the adoption of Telebanking, performance expectancy, and price value respectively. Furthermore, the variance explained in behavioral intention was larger than the variance accounted by other Telebanking studies such as the model of Curran and Meuter (2005) who were only able to explain 35% of variance in behavioral intention while the lower ratio recorded by Sundarraj and Wu (2005) was about 24% of variance. Therefore, there is strong evidence supporting the selection of UTAUT2 as a solid and fit theoretical foundation illustrating the Jordanian's customer intention to adopt Telebanking.

In accordance with the path coefficient analyses, as seen in Figure 2, performance expectancy appears to be the most important construct impacting the behavioral intention ( $\gamma=0.40$ ,  $p<0.000$ ). This means that customers, who see Telebanking as a valuable and productive technology in their daily life, are more likely to be motivated to adopt this technology. This relationship could be attributed to the particular nature of the Telebanking technology in Jordan as it is a more productive and cost-effective technology saving customers time, effort, and cost. In addition to this, Telebanking is able to provide the customer with several financial services by using a more convenient channel along with a higher quality level (Curran and Meuter, 2005; Liao et al., 1999). These results are parallel with prior studies of SSTs (Abu-Shanab et al., 2010; Eriksson and Nilsson, 2005; Curran and Meuter, 2005; Liao et al., 1999; Sundarraj and Wu, 2005; Wang and Shih, 2009).

Moreover, performance expectancy was found as a key contributor of price value ( $\gamma=0.37$ ,  $p<0.000$ ). In other words, the benefits and utilities pertaining to Telebanking are contributing to the value that customers perceive in this technology instead of the monetary cost which should be paid to use this technology. This reflects that if the customer perceives that Telebanking is more useful and requires less time and cost, they are more likely to have positive price value by using such technology (Ho and Ko, 2008; Sheth et al., 1991). This relationship has been addressed by Ho and Ko (2008) who confirmed the impacting role of perceived usefulness on the value perceived in using Internet banking.

As proposed by Venkatesh et al. (2012), the role of intrinsic motivation was approved by confirming the statistical strong association between hedonic motivation with both price value ( $\gamma=0.49$ ,  $p<0.001$ ) and customers' intention ( $\gamma=0.21$ ,  $p<0.001$ ). Thus, it suggested that intrinsic

motivators such as the feeling of pleasure, fun, and enjoyment, which can be stimulated by using Telebanking, play a decisive role in forming a customer's predisposition to adopt this technology. By and large, intrinsic motivation enjoys a particular interest in the customers' context and its impact becomes more effective in the case of hedonic technologies (Brown and Venkatesh 2005; Van der Heijden, 2004). Telebanking has attributed to a more modern and pioneering technology in Jordan carrying further innovativeness and novelty seeking experiences; therefore, using Telebanking is more likely to accelerate further intrinsic motivation, and accordingly, enhancing customers' intention to use this channel (Venkatesh et al., 2012).

By increasing the level of intrinsic utilities in using Telebanking, customers will perceive further benefits in using Telebanking instead of the financial cost which, in turn, is contributing to the price value. In his study, Celik (2008) demonstrated how customers' feeling of pleasure and enjoyment associated with using online banking can enhance the perceived value. Moreover, intrinsic motivation has been theoretically asserted as a fundamental factor predicting customers' intention and adoption of technology either in the information system setting (Brown and Venkatesh 2005; Davis et al., 1992; Venkatesh, 1999) or in the SST context (Dabholkar and Bagozzi et al., 2002; Dabholkar et al., 2003; Van der Heijden 2004).

In line with Venkatesh et al. (2012), the price value ( $\gamma=0.17$ ,  $p<0.011$ ) was recognized as a crucial factor determining behavioral intention to adopt Telebanking. This, in turn, demonstrates that Jordanian customers are more critical about the monetary value of using Telebanking. To put it differently, if a customer perceives the utilities of using Telebanking are greater than the financial cost, he will perceive a positive price value and will be more likely to adopt Telebanking. The significant influence of price value could be due to the fact that using Telebanking to receive the financial services is perceived a highly cost-effective way relative to visiting traditional branches which normally require further time and transportation costs (Howcroft et al., 2002; Meuter et al., 2000; Wan et al., 2005).

Furthermore, given the previous results regarding hedonic motivation and performance expectancy, it seems that Jordanian customers highly perceive Telebanking as useful and an enjoyable way to produce financial services; hence facilitating the importance of the role of price value to predict the customers' intention. Moreover, a large number of respondents are on a

medium-sized income, and consequently, are more sensitive regarding price issues. In line with this assumption, Cruz et al. (2010) argued that monetary cost was found to be the most important barrier mitigating the intention to adopt Mobile banking among younger customers who have a lower income but enjoy a higher level of education.

Nevertheless, findings showed that the effect of effort expectancy on the behavioural intention was not significant. This illustrates that Jordanian customers are not concerned about the easiness degree pertaining to Telebanking in forming their intention. The possible reason for this could be due to the fact that Telebanking technology has been recently introduced by the Jordanian banks; accordingly, it could be attributed, to a certain extent, to the degree of difficulty to use. In addition to this, even though the Jordanian banks over the last few years have concentrated their effort on updating and implementing online banking channels in their logistical system, their efforts regarding marketing and educating customers on how to use these technologies efficiently were not sufficient. Yet, customers could override any difficulties regarding the usage of technology if he or she perceived and evaluated positively the advantages and benefits which can be extracted from using technology such as convenience, efficiency, feeling of entertainment, and saving cost and time (Curran and Meuter, 2007; Davis et al., 1989; Davis et al., 1992; Kolodinsky et al., 2004; Yoon, 2010). According to the statistical findings of the current study, it seems clear that Jordanian customers positively evaluate Telebanking as the new technology by characterising it with a higher degree of performance expectancy, hedonic motivation, and price value. Therefore, they are more likely to override any difficulties perceived so as to reach these advantages.

Furthermore, individuals, who enjoy a high degree of awareness, experience, and knowledge regarding technology in general, are more confident in their ability to get used to dealing with new technology as long as they are less likely to be influenced by the degree of difficulties that exist in technology (Castaneda et al., 2007; Davis et al., 1989; Venkatesh et al., 2003; Venkatesh et al., 2012). In accordance with the respondents' profile in the current study, the vast majority of respondents (85%) have a good experience with the computer and the Internet; most of them also enjoy a well-educated level (90% of respondents have a Bachelor's Degree or above). Therefore, effort expectancy, over an evolved technological context like Jordan, could be an inconsiderable aspect when the customer is in the process to accept or reject such a particular type of technology (e.g. Telebanking). The non-significant influence of effort expectancy (perceived ease of use) on

the customers' intention has been documented by a number of studies in the online banking context as well (Brown et al., 2003; Curran and Meuter, 2007; Tan and Teo, 2000; Yu, 2012).

Despite the insignificant influence of effort expectancy on behavioral intention, empirical findings approved a strong correlation between effort expectancy and performance expectancy which, in turn, supports the fact that effort expectancy is still a very important construct among the conceptual model. As discussed by prior studies on the information system, customers usually are involved in a cognitive trade-off process between the utilities expected from using technology and the effort that should be done to use this technology (Amin, 2007; Celik, 2008; Davis et al., 1989; Eriksson et al., 2005; Kim and Forsythe, 2010; Sundarraj and Wu, 2005; Wang et al., 2003). In other words, if the customers perceive that using technology needs less effort and is not difficult, they will perceive using technology more advantageously and be useful in their life (Davis et al., 1989). By the same token, several studies have supported the instrumental and indirect influence of perceived ease of use by way of mediating influence of perceived usefulness rather than as a direct determinant of behavioural intention towards online banking channels (Celik, 2008; Erikson et al., 2005; Pikkarainen et al., 2004; Sundarraj and Wu, 2005; Wang et al., 2003; Yang, 2010).

According to the findings of the current study, the impacting role of facilitating conditions was found to be varied. Although facilitating conditions did not have any influence on the adoption of Telebanking, facilitating conditions significantly predicted behavioural intention. Therefore, facilitating conditions still maintain their crucial role over the proposed conceptual model. This suggests that respondents who have already adopted Telebanking were not concerned about the important facilities, skills, infrastructures, and technical support to formulate their decision to adopt or not adopt Telebanking. These aspects, however, derived considerable interest from the potential adopters.

Several considerations such as age, gender, experience, and context nature should be taken into account when examining the impacting role of facilitating conditions (Al-Gahtani et al., 2007; Thompson et al., 1991; Thompson et al., 1994). According to Morris et al. (2005), Venkatesh et al. (2003) and Venkatesh et al. (2012), facilitating conditions usually draw considerable interest from elder people who, in turn, enhance the positive relationship between facilitating conditions and adoption behaviour for the people in this age group; this relationship is more likely to vanish

by a decreasing age. Customer experience with technology could hinder or contribute to the impacting role of facilitating conditions; for instance, as theorised by Venkatesh et al. (2003) and Venkatesh et al. (2012), customers with a rich experience could exceed difficulties regarding the availability of technical and informational support or the compatibility degree of targeted technology with other technologies that customers use. In view of the characteristics of the current study's respondents, the vast majority of actual user respondents are under the age of 40 along with the fact that most of them have more than three years' experience in technology, and consequently, it could be reasonable that facilitating conditions in this study do not have a significant influence on the adoption of Telebanking. Furthermore, given that in the customer context where the use of technology is not compulsory, customers could be less likely influenced by facilitating conditions relative to a mandatory context (Venkatesh et al., 2003). In the context of SST and online banking, other empirical evidences about non-significant influence of external resources and assistances on the adoption behavior have been reached by Gerrard and Cunningham (2003) and Brown et al. (2003).

On the other hand, owing the particular nature of online banking channels (e.g. Telebanking) along with the fact that facilitating conditions usually are not freely available at the customer context (Venkatesh et al., 2012), customers who have not yet adopted these technologies are more concerned with the availability of these resources as well as the cost of using it. This concern is reflected by the significant relationships between facilitating conditions and behavioural intention as found by this study. Further, even though Jordanian customers have rich experiences with the computer and the Internet, their experience with online banking in general or Telebanking in particular is still very weak (Alalwan et al., 2014; Al-Rfou, 2013) and this has been observed by the current findings which noted the lower adoption rate of Telebanking. As theorised by Venkatesh et al. (2012), the importance of facilitating conditions increases by decreasing the customers' experience. Thus, it demonstrates why potential adopters pay considerable interest about the availability of facilitating conditions rather than actual adopters who have already adopted these technologies and have gained an adequate level of experience enabling them to override any barriers in this regard.

Contradictory to Venkatesh et al. (2012), the empirical findings indicated that the correlation between social influences and behavioural intention was negative but non-significant. This means that Jordanian customers are less likely to depend on the opinions of others surrounding

them to formulate their intention to adopt or reject Telebanking. Moreover, the negative but non-significant relationship implies that the Jordanian society still does not accept or be fully aware of Telebanking as an alternative channel for human encounter. According to Al-Rfou, (2013) and Salhieh et al. (2011), a lack of awareness of the SST services (e.g. Telebanking) has been claimed as one of the most significant barriers of adopting these services by the Jordanian banking customers. However, as an inevitable result for daily interactions between people and technology along with increasing the knowledge and experience accepted by individuals regarding technology, people are more capable to logically evaluate the pros and cons of adopting technology as long as they rely less on the information that comes from their social system (Venkatesh and Morris, 2000). With regards to the current study, the vast majority of respondents are highly educated, and have experience to deal with computers and the Internet. Furthermore, in the light of the fact that in the Jordanian context (as a developing country), Telebanking could be considered in the early stages of its life cycle coupled with the fact that the awareness of these technologies is still low (Al-Rfou, 2013; Salhieh et al., 2011). Hence, customers are more likely to be more independent to make their own decision whether to use or reject online banking services as well as being more selective for the information that comes from the social system (Tan and Teo, 2000).

Moreover, it is important to take the particular nature of Telebanking and SST technology into account as it is a more individual and personal technology (Karjaluoto et al., 2002; Meuter et al., 2005). Therefore, as reported by Davis et al. (1989), the considerable impact of social influences could be weaker relative to the high social applications which normally draw further support from the social system. More importantly, the usage and acceptance of Telebanking by the Jordanian banking customers is non-compulsory, and consequently, social influences may lose their crucial impact on behavioural intention relative to the mandatory context as reported by Davis et al. (1989), Venkatesh and Davis (2000) and Venkatesh et al. (2003). Besides, promotional campaigns conducted by Jordanian banks regarding online banking channels are still weak and, consequently, they reflect negatively on people's evaluation and perception; either the existence or advantages of these channels (Al-Rfou, 2013; Al-Majali, 2011; Al Sukkar and Hasan, 2005). Therefore, it could be plausible in the Jordanian context to find that social influences have a weak and negative effect on the customers' willingness to adopt Telebanking. This thought has been supported by an empirical study conducted in the Jordanian context by



Ayouby and Croteau (2009). Indeed, this study found that the adoption of the Internet is negatively influenced by the role of the subjective norms, and this negative relationship is reasoned by Ayouby and Croteau (2009) for increasing the importance of the role of acculturation to the global culture in the Jordanian context accompanied by increasing the Internet experience and education level.

A negative relationship between social influences and the customers' disposition to adopt Internet banking has been documented by Karjaluoto et al. (2002). This negative correlation has been reasoned by Karjaluoto et al. (2002) to the highly social interaction between clients and banks' employees which are mitigating customers' willingness to adopt SST channels. Moreover, many studies pertaining to online banking found that social influences do not have a significant impact on the customers' intention to adopt online banking channels (Curran and Meuter, 2007; Gerrard and Cunningham, 2003; Shih and Fang, 2004; Shih and Fang, 2009; Tan and Teo, 2000).

With a weak magnitude but a significant influence, perceived risk was recognized as a significant determinant of Jordanian customers' intention to adopt Telebanking. This indicates that customers are less likely to be encouraged to adopt Telebanking with a higher degree of expectation of suffering a loss when using Telebanking. This relationship could return to the particular nature of the online banking technology which is characterized by a high uncertainty, intangibility, heterogeneity and vagueness along with the absence of human interaction (Flavián et al., 2006; Rexha et al., 2003). Therefore, making the customer more apprehensive to use online banking thereby mitigating their intention to use this technology (Eriksson et al., 2008; Flavián et al., 2006; Jaruwachirathanakul and Fink, 2005; Kolodinsky et al., 2004; Rexha et al., 2003).

Noteworthy, perceived risk was the lowest significant factor predicting Jordanian customers' intention to adopt Telebanking. The weaker influence of perceived risk could be due to the fact that younger people who enjoy a good level of experience of technology pay less attention regarding the risk perceived in technology. Along with that fact, the younger generation is more likely to carry a level of risk so as to attain benefits by using this technology (Rogers, 2003; Solomon et al., 2008). This thought has been supported by different online banking studies. Laukkanen et al. (2007) argued that younger customers perceived Mobile banking less risky than

mature customers; therefore, their intention to adopt Mobile banking is less likely to be influenced by perceived risk. Most respondents of the current study are aged less than 40 and enjoy an adequate level of technology experience and education. In addition, they positively perceived Telebanking in the terms of usefulness, hedonic motivation, and price value as mentioned before. Therefore, they are more than likely to be less influenced by the role of perceived risk.

## **7. Conclusion**

The integrated model (UTAUT2) and perceived risk was used to examine the Jordanian customers' intention and adoption of Telebanking. The six fundamental constructs from UTAUT2 (PE, EE, SI, FC, HM, and PV) coupled with PR are formulated as direct predictors of BI. With regards to the predictors of adoption behaviour, two factors (BI and FC) are proposed as key determinants of the adoption of Telebanking by Jordanian customers. A structural equation model was employed to analyse the data obtained from a convenience sample of 323 Jordanian banking customers. Empirically, the proposed model was able to explain a large proportion of variance (about 75%) in behavioural intention and 48% of variance in adoption behaviour. Statistically, PE was approved as the most influential factor predicting BI followed by HM and PV respectively. FC was recognised as the fourth factor in the term of extent impact on the customers' intention to adopt Telebanking. PR had the weakest significant path with BI as the findings indicated. On the other hand, both EE and SI did not have any significant influence on the customers' intention as discussed before. BI was solely identified as a significant factor determining the adoption of Telebanking whereas there was not a significant path between FC and adoption behaviour. The number of guidelines and applications helping Jordanian banks to successfully implement Telebanking technology are deliberated below along with discussing the main research limitations and future directions.

### **7.1 Contribution**

By examining the Jordanian customers' intentions to adopt Telebanking including PR alongside the UTAUT2 constructs and adding new relationships among the UTAUT2 constructs, this study was able to extend the theoretical and applicable horizon of UTAUT2. Indeed, both comprehensiveness and parsimony were considered in choosing factors in the conceptual model and proposing the causal paths between them. This study attempted to cover the main aspects

related to the customers' intention and behavior as long as it avoided any repetition of these factors. Having performance expectancy, hedonic motivation, price value, the three aspects of the utilities (performance (functional), intrinsic, and monetary) were captured in the conceptual model. The role of the contextual factor was also represented in the conceptual model by including facilitating conditions. By the same token, the conceptual model comprises of the impact of the social environment through considering the impact of social influences. All causal paths (research hypotheses) were proposed in line with what has been confirmed in prior literature and based on the existence of a strong logical justification considering the nature of the Jordanian banking context. By the same token, statistical evidences of the current study strongly support the proposed model by explaining a higher proportion of variance in both intention (75%) and usage behaviour (48%) than these accounted by prior studies (e.g. Curran and Meuter, 2005; Sundarraj and Wu, 2005). Having a systematic process in doing this, a contribution is exhibited by proposing a robust conceptual model, and accordingly, opening prospects to reapply and retest this model to explain customers' intention and behavior towards different technologies in different contexts.

While Venkatesh et al. (2012) discussed how functional, intrinsic, and financial utilities can directly predict BI, this study added a contribution to UTAUT2 by discussing causal interaction between these aspects such as the effect of both PE and HM on PV, or how HM can predict PE. By doing so, this study was able to provide a deeper picture about the way that customers form their intention toward technology; also it enriched the SST literature by focusing more on a pivotal role of intrinsic motivation not only as a key predictor of customer intention but also as a key contributor for the functional and price value perceived in technology. As this theory has never been utilised before for examining Telebanking, along with fact that Telebanking has never been examined in Jordan, this study also forms original and theoretical contributions. This is accompanied by the introduction of an empirical proof about the validity of UTAUT2 in the Telebanking context.

Owing to the fact that Telebanking is not fully adopted and studied in the Jordanian context, findings from this study offer a number of guidelines to help Jordanian banks to enhance the customers' willingness to adopt Telebanking and hopefully convert those potential adopters to be actual users in the future. In addition to this, the vast majority of customers who have a higher intention to adopt Telebanking enjoy an adequate level of education and experience with the

Internet and the computer; moving them to be actual adopters of Telebanking will not be expensive and difficult (Akinci et al., 2004). Such effective strategies in this regard are allowing customers to freely try these applications without any consequences for the transactions conducted in the first time (Laukkanen et al., 2009).

Findings of this study also provided clues for the Jordanian banks about the important influence of performance expectancy. Therefore, banks have to initially be sure that Telebanking is able to conduct financial transactions efficiently, accurately, and within less time. This should accompany the provision of information required by customers to successfully use this channel (Jaruwachirathanakul and Fink, 2005; Zhou et al., 2010). Further, the Jordanian banks should enhance the customer positioning regarding Telebanking as cost-effective and productive technology. In this respect, different communication strategies could be applied by using different means such as mass media, social media, direct marketing or face-to-face communication demonstrating the advantages of Telebanking relative to the traditional channels (Laukkanen et al., 2008; Laukkanen et al., 2009; Yu, 2012).

Furthermore, Jordanian customers seem to be more motivated by the hedonic benefits extracted from using Telebanking. In addition to this, higher hedonic motivation leads to a better performance and better financial utilities gained from using Telebanking. Therefore, the designing and promotional activities should concentrate on the novelty and inventiveness of Telebanking services which, in turn, could attract further customers to using Telebanking (Venkatesh et al., 2012). Furthermore, customizing a smart, high quality, and advanced Telebanking services based on customers' preferences will lead to adding value in the terms of innovativeness and uniqueness. This may further accelerate hedonic motivation, and accordingly, further performance expectancy, price value, and may attract more customers to adopt Telebanking.

Jordanian customers also seem to be interested on the price value issue; hence, focusing on the hedonic and performance utilities could enhance the price value of using such technology as long as it accelerates the customers' willingness to adopt this technology (Venkatesh et al., 2012; Wessels and Drennan, 2010). In addition, the special price discounts or being able to use these services for free could be another effective tactic in contributing to the price value; this could increase customers' intention to use Telebanking as well (Ho and Ko, 2008; Venkatesh et al.,

2012; Wessels and Drennan, 2010). These discounts could also play a crucial role in motivating potential adopters to be actual users of these channels (Laukkanen et al., 2009). Moreover, it appears that Jordanian customers prioritize the benefits and value of using Telebanking (PE, HM, and PV respectively) in forming their intention. Accordingly, a marketing campaign should convey these benefits based on their importance from the Jordanian customers' perspective.

Even though effort expectancy was not approved as a significant factor influencing customer intention to adopt Telebanking, effort expectancy was still an important factor among the conceptual model by way of its influence on the PE. Therefore, Jordanian banks should be more interested in designing Telebanking services as the customer perceives them: more suitable, friendlier, easy to learn and more accessible. An effective personal and practical programme that will educate customers on how they can efficiently use Telebanking services could be more helpful to override any complexity and confusion related to the use of this technology (Laukkanen et al., 2008; Laukkanen et al., 2009). Further, a useful manual explaining a step-by-step process on how customers can properly apply Telebanking transactions could be helpful to enhance effort expectancy as recommended by Jaruwachirathanakul and Fink (2005). Importantly, banks have to survey their customers' opinions to make sure that using Telebanking is simple as well as to attain valuable feedback informing them which are the most difficult aspects in using Telebanking. At the same time, banks should reconsider the current design of Telebanking in order to identify the simplicity and suitability form from the customers' perspective (Curran and Meuter, 2005).

Besides, some evidences imply that facilitating conditions are among the important aspects for the potential adopters in forming their intention towards Telebanking. Thus, banks should design these services in a compatible manner with other technologies used by Jordanian customers. Also, banks should provide and develop important resources, information, infrastructure that are needed by Jordanian customers to easily and effectively access the Telebanking services. Additionally, an effective collaboration between the banks and the Internet, mobile and telecommunication service companies will help to provide online banking services (e.g. Internet banking and Telebanking) with a higher quality and controllability for banks as well as making customers' access to SST services faster, safer, easier, and less expensive (Jaruwachirathanakul and Fink, 2005).

Noteworthy, despite the insignificant influence of social influences, its negative path with behavioral intention indicates that either the social system in Jordan is not fully aware of Telebanking technology or there is negative perception regarding this technology. This calls for further marketing and promotional activities enhancing people's awareness of Telebanking services and creating a positive 'word of mouth' regarding this technology too. Such of these activities should be conducted by using different personal and common communication channels. Banks nowadays could utilize the technological breakthrough in social media to promote their services in an appropriate method from their customers' viewpoint (Yu, 2012). Banks could also rely on the actual users of these services as a gateway and reference group who could convey their successful experiences with this technology to their friends, families, colleagues, or even other bank customers (Chiu et al., 2010).

Despite the weak magnitude effect of perceived risk, more effort should be spent on alleviating customers' concerns from using Telebanking by conducting some risk reduction strategies. Thus, banks have to spend a greater effort in persuading customers that Telebanking is fully protected and is a less risky way to attain the financial services (Laukkanen et al., 2008; Laukkanen et al., 2009). Furthermore, deriving feedback from customers concerning the most critical risks (e.g. financial, social, performance) could help banks to choose the most suitable strategy to mitigate these concerns. In the case of the current study, it seems that Jordanian customers have expressed their concerns regarding privacy, financial, and performance risk; therefore, as suggested by Laukkanen et al. (2007), using an innovation modification strategy is more applicable in this respect. For instance, the advancement in biometric technology introduces many solutions and tools to improve the customers' authentication mechanisms (e.g. fingerprints, voice tag, and iris recognition) (Laukkanen et al., 2008; Poon, 2008). In the case of Telebanking, as it is IVR technology, using a voice tag to verify any transactions conducted by Telebanking would provide further simplicity and a safer way to approach bank accounts rather than the traditional password method (Poon, 2008). Other strategies that could be more useful in mitigating perceived risks should be taken into account, such as using a money-back guarantee policy in the case of fraud, and improving structural assurance to prevent any hacking and piracy (Gan et al., 2006; Yousafzai et al., 2005). According to Yousafzai et al. (2005), by using actual users of Telebanking or other online banking channels such as Internet banking and Mobile banking as a market gateway or as a reference group, it may persuade the reluctant customers that using

Telebanking is not risky. Besides, maintaining the certainty of the Telebanking area could improve customers' perceived reliability and thereby mitigating the perceived risk (Kim et al., 2009).

## **7.2 Limitations and Future Research Directions**

While this study only measured behavioural intention and the adoption of Telebanking, future researches could look at the long-term consequences of using Telebanking such as the future intention to use this technology or its impact on the customers' satisfaction and loyalty (Dwivedi et al., 2013). This study only examined one kind of SST technology applied in the Jordanian banking context. Other types of SST channels such as the Internet bank or the newest one - Mobile banking - could be a worthy direction to be examined by future studies particularly due to the scarcity of literature in this regard.

Owing to the fact that Telebanking is a new technology in Jordan and its adoption rate is still sluggish, Jordanian customers have not yet formulated a habitual behaviour toward this technology; habit was excluded by this current study. However, it is important to consider habit in future studies once Jordanian customers get used to the online banking channels. The insignificant relationships between effort expectancy with intention and facilitating conditions with adoption calls for further examination along with considering other aspects such as the role of demographic factors and technology experience and how the effect of effort expectancy and facilitating conditions could fluctuate according to these differences (Venkatesh et al., 2012; Wessels and Drennan, 2010).

While this study modified perceived risk along with UTAUT2 constructs as external factors, other important factors such as trust, self-efficacy, and technology readiness should receive further interest by future researches. In order to reach further generalizability about the applicability of UTAUT2 in the customer context, other types of SSTs in different contexts such as airline check in, Mobile government, online shopping etc. should be considered by future researches as well.

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## Appendix 1

**Table 1 Construct items**

<b>Constructs</b>	<b>Items</b>		<b>S</b>
<b>Performance Expectancy</b>	PE1	I find Telebanking useful in my daily life.	Venkates
	PE2	Using Telebanking increases my chances of achieving tasks that are important to me.	Venkates
	PE3	Using Telebanking helps me accomplish tasks more quickly.	Venkates
	PE4	Using Telebanking increases my productivity.	Venkates
<b>Effort Expectancy</b>	EE1	Learning how to use Telebanking is easy for me.	Venkates
	EE2	My interaction with Telebanking is clear and understandable.	Venkates
	EE3	I find Telebanking easy to use.	Venkates
	EE4	It is easy for me to become skilful at using Telebanking.	Venkates
<b>Social Influences</b>	SI1	People who are important to me think that I should use Telebanking.	Venkates
	SI2	People who influence my behaviour think that I should use Telebanking.	Venkates
	SI3	People, whose opinions that I value, prefer that I use Telebanking.	Venkates
<b>Facilitating Conditions</b>	FC1	I have the resources necessary to use Telebanking.	Venkates
	FC2	I have the knowledge necessary to use Telebanking.	Venkates
	FC3	Telebanking is compatible with other technologies I use.	Venkates

	FC4	I can get help from others when I have difficulties using Telebanking.	Venkates
<b>Hedonic Motivation</b>	HM1	Using Telebanking is fun.	Venkates
	HM2	Using Telebanking is enjoyable.	Venkates
	HM3	Using Telebanking is entertaining.	Venkates
<b>Price Value</b>	PV1	Telebanking is reasonably priced.	Venkates
	PV2	Telebanking is good value for the money.	Venkates
	PV3	At the current price, Telebanking provides good value.	Venkates
<b>Behavioural Intention</b>	BI1	I Intend to use Telebanking in the future.	Venkates
	BI2	I will always try to use Telebanking in my daily life.	Venkates
	BI3	I plan to use Telebanking in future.	Venkates
	BI4	I predict I would use Telebanking in the future.	Venkates
<b>Perceived Risk</b>	PR1	Using Telebanking services subjects my banking account to potential fraud.	Featherm Pavlou (2
	PR2	Using Telebanking services subjects my banking account to financial risk.	Featherm Pavlou (2
	PR3	I think using Telebanking puts my privacy at risk.	Featherm Pavlou (2
	PR4	Hackers might take control of my bank account if I use Telebanking.	Featherm Pavlou (2
	PR5	Using Telebanking will not fit well with my self-image.	Featherm Pavlou (2

	PR6	Telebanking might not perform well and will create problems with my bank account.	Featherm Pavlou (2
	PR7	Using Telebanking exposes me to an overall risk.	Featherm Pavlou (2
<b>Adoption</b>	Service 1	Balance Enquiries	Suggeste Jordaniar
	Service 2	Funds Transfer	Suggeste Jordaniar
	Service 3	Requesting Cheque book or Bank Certificates	Suggeste Jordaniar
	Service 4	Paying Bills	Suggeste Jordaniar
	Service 5	Request increase in credit card(s) limit or pay any balance due	Suggeste Jordaniar
	Service 6	Payments of loans and mortgages instalments	Suggeste Jordaniar

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