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Influence of Perceived Usefulness, Trust and Self-Efficacy on Consumers' Adoption of Telebanking: Insights from Jordan

Abstract

Purpose – This study aims to examine the main factors predicting Jordanian customers' intention and adoption of Telebanking.

Design/methodology/approach – Perceived usefulness, trust and self-efficacy are formulated over the proposed conceptual model as key factors determining behavioural intentions while the adoption of Telebanking is proposed to be predicted by both behavioural intentions and perceived usefulness. A self-administered questionnaire was used to gather the data from a convenience sample of Jordanian banking customers. Structural equation modelling (SEM) was applied to validate the conceptual model and verify the research hypotheses.

Findings – Statistical results largely support the predictive validity of the conceptual model which is able to account for 68% of the variance in behavioural intentions. Additionally, perceived usefulness, trust and self-efficacy (listed in order of their influence) are found to be significant factors in predicting behavioural intentions. Behavioural intentions and perceived usefulness were also confirmed to have significant influence on adoption behaviour.

Research limitations/implications – The data for the current study were obtained using a convenience sample of Jordanian banking customers; this could limit the result generalisability. In addition, this study fully focused on the customers' perspective and has not examined issues from a service provider's perspective.

Originality/value – This study was able to comprise a fundamental contribution by examining the unique context of Telebanking technology in Jordan. Accordingly, the current study has successfully formulated a deep view regarding the most important aspects predicting the Jordanian customers' intentions towards such an emerging system. The results provide practical guidelines for banks to choose a suitable marketing strategy that could enhance the customers' adoption of Telebanking.

Keywords: Adoption, Jordan, Telebanking

Introduction

Telephone/Interactive Voice Response (IVR) system is one of the most common types of self-service technologies implemented by service organisations (Bitner et al., 2002). Over the banking context, IVR systems have also been found in the form of Telebanking (Curran and Meuter, 2005). By using Telebanking, customers are able to produce and attain a variety of electronic banking services (i.e. balance enquiries, paying bills, and fund transfers) 24 hours a day 7 days a week and without any assistance from banking staff (Liao et al., 1999).

In Jordan, the mobile and telecommunication area has been growing phenomenally over recent years. Indeed, there are four mobile service operators that are competitors in the Jordanian market in addition to 140% quoted as the penetration rate of mobile and landline phone services by the end of 2012 (The Jordan Times, 2013). Accordingly, Jordanian banks have started an early launch of their services by using mobile and phone channels. For instance, out of 26 different commercial banks in Jordan, 13 banks have implemented Telebanking services (Migdadi, 2012). Given the intensity of the competition, banks seem to be more motivated to adopt the electronic channels (i.e. Telebanking, Internet banking, Mobile banking) to override the restrictions pertaining to human encounter (Ahmad and Buttle, 2002; Alalwan et al., 2015). Such emerging channels would also help to deliver customers a high service value and quality by means of innovative and cost-effective channels, and ultimately maintain customer satisfaction and loyalty (Sundarraj and Wu, 2005). Nevertheless, the adoption rate of Telebanking has not grown as expected, and customers are still reluctant to accept this technology to access financial services (Alikhani et al., 2013). This means that it may be futile to invest in such emerging channels because banks have to continue to provide their services via human encounters, along with their associated operational and labour costs (Curran and Meuter, 2005).

In effect, persuading customers to switch their behaviour from traditional encounters to using Telebanking is not an easy process, especially as there is a lack of understanding of this phenomenon from the customers' perspective (Curran and Meuter, 2005; Martins et al., 2014). Thus, there is a constant need to understand and examine the main factors that could shape customer intention to adopt such an emerging channel. However, the customers' intention and acceptance of Telebanking has not been tested over the Jordanian context. For that reason, this study aims to identify and empirically examine the main factors predicting the behavioural intention and adoption of Telebanking by Jordanian banking customers.

Indeed, such study would also be able to comprise a significant contribution via highlighting the fundamental aspects taken into account by Jordanian banking clients in shaping their decision to adopt or reject Telebanking. Accordingly, that will provide Jordanian banks with clues explaining them how they should design and promote using Telebanking as self-service technology helping both customers and banks to save time, efforts, and cost.

The remaining sections of the paper are structured as follows: the next section provides an overview of the relevant literature; a proposed conceptual model and associated hypotheses follow in Section 3. Section 4 outlines the research method. The results are then presented in Section 5 followed by a discussion in Section 6. Finally, Section 7 briefly discusses the main research limitations and future research directions.

Literature Review

Upon a closer review of the relevant literature, it was noticed that the related issues of customer intention and adoption of Telebanking has received less interest by researchers in comparison with other kinds of online banking channels (i.e. Internet banking and Mobile banking) (Hoehle and Huff, 2009; Hoehle et al., 2012; Alalwan et al., 2013). Theoretically, researchers have proposed and examined different factors that could have an impact on the customers' intention and adoption of Telebanking. For example, innovation features of Telebanking channels such as ease of use, result demonstrability, relative advantages, compatibility, and observability were approved by Liao et al. (1999) and later by Kolodinsky et al. (2004) to be key predictors of the customers' attitudes and intention to use Telebanking. Convenience, user-friendliness, assurance, and informativeness were also all proved by Wan et al. (2005) to have significant association with customers' adoption of Telebanking. Singh and Kaur (2013) reported that customers' satisfaction 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

Perceived usefulness was observed by Curran and Meuter (2005) to have a significant influence on customers' attitudes regarding Telebanking. Likewise, Sundarraj and Wu (2005) empirically found that perceived usefulness fully mediated the impact of perceived ease of use and actual usage of Telebanking. Yet, Sundarraj and Wu (2005) and Wan et al. (2005) noticed that the Telebanking channel was perceived by the largest part of customers as less advantageous and more complex in comparison with Internet banking. A recent study

conducted by Alikhani et al. (2013) noticed that while customers' intention to adopt Telebanking was positively influenced by both perceived usefulness and ease of use, it was negatively predicted by the role of perceived risk alongside.

There are also a number of studies that have addressed the role of demographic and personality factors on the customer adoption of Telebanking as reported in the study of by Wan et al. (2005) and Al-Ashban and Burney (2001). Furthermore, statistical results from Dimitriadis and Kyrezis (2011) show that personality factors such as innovativeness, experience, and customer knowledge not only predict customers' intention to use Telebanking but also contributes to the customers' trust in Telebanking. Thornton and White (2001) also demonstrated that the usage of Telebanking is significantly correlated with the customers' perception towards aspects of change, technology, computer, knowledge and confidence.

As mentioned earlier, compared to Telebanking, aspects and issues related to Internet banking adoption has derived a considerable attention from researchers over the related area of interest (Alalwan et al., 2015; Alalwan et al., 2014; Lin et al., 2015; Martins et al., 2014; Rawashdeh, 2015). In his study to examine the adoption of Internet banking from the perspective of Jordanian accountants, Rawashdeh (2015) proposed an extension of TAM with privacy. He highly supported the role TAM factors (perceived usefulness and ease of use) and privacy in determining the behavioural intention to adopt Internet banking. Alalwan et al. (2015) have also examined the Jordanian customers' intention and actual adoption of Internet banking in Jordan. Their results strongly approved self-efficacy, trust, and hedonic motivation (listed in order of their influence) as significant determinants of behavioural intention to adopt Internet banking by Jordanian customers. Mobile banking issues have recently been the focus of attention for many researchers who attempt to discover the main factors that could form the customer's intention and adoption of such innovative technology (Hanafizadeh et al., 2014; Lee et al., 2014; Lin, 2013; Mishra and Bisht, 2013; Purwanegara et al., 2014). For instance, Hanafizadeh et al. (2014) have addressed that perceived ease of use and perceived usefulness are critical aspects considered by customers' in forming their intention to use Mobile banking in Iran.

In conclusion, despite these studies providing a further understanding regarding the main factors predicting customer intention and usage of Telebanking, there are still other important aspects that have to be explained such as the role of self-efficacy. Indeed, the role of self-

efficacy has still not been fully addressed in the relevant studies into Telebanking. There is also a need to examine and address how self-efficacy can impact the customers' perceptions towards Telebanking. Moreover, such a relationship between the customers' trust and the customers' perception of functional utilities (i.e. perceived usefulness) of using Telebanking represents a worthwhile research direction to be tested and explained as highly recommended by Gefen et al. (2003). More importantly, and as mentioned above, there is no study that has tested the adoption of Telebanking in Jordan. So, to fill this research gap, a parsimonious conceptual model will be proposed and examined in the forthcoming sections.

Conceptual Model and Research Hypotheses

Three fundamental factors, namely, perceived usefulness (PU), trust (TR) and self-efficacy are integrated into one single model to predict the behavioural intention (BI) to adopt Telebanking by Jordanian banking customers (see Figure 1). Indeed, this study has followed the proposition of Gefen et al. (2003) who integrated the TAM with trust to predict the customer adoption of online shopping. Such proposition was extended in the current study by including self-efficacy, which compensates the role of perceived ease of use as proposed in the TAM. In fact, upon closer review of the most of studies (i.e. Celik, 2008; Pikkarainen et al., 2004; Sundarraj and Wu, 2005; Yoon, 2010) that have examined the role of perceived ease of use, it was found that perceived ease exert a significant influence in shaping the customers intention to adopt online banking channels. By increasing the daily interaction with technology and Mobile innovation and having an adequate level of technological savvy, awareness, skills, and knowledge, individuals are more likely to be confident in their ability to get used to new technology as long as they are less likely to be influenced by the degree of difficulties that exists in this technology (Brown et al., 2003; Castañeda et al., 2007; Davis et al., 1989; Venkatesh et al., 2003; Venkatesh et al., 2012; Wang et al., 2006; Wessels and Drennan, 2010). In addition, in the Jordanian context, a negative but non-significant path between effort expectancy (similar factor to perceived ease of use) and customers' intention to use Internet banking was noticed by AbuShanab et al. (2010). Therefore, the current study has only considered the role of perceived usefulness from the TAM and compensates the role of ease of use by including self-efficacy.

Further, adoption behaviour was proposed to be predicted by both BI and PU. In fact, the PU construct, as introduced in the Technology Acceptance Model (Davis et al., 1989), has been

widely reported as a key factor predicting BI towards different kinds of online banking channels (Curran and Meuter, 2005). Likewise, there are several studies in the same area of interest that have discussed and addressed the important role of SE and TR in shaping the customers' perception and intention towards online banking channels (i.e. Gu et al., 2009; Kesharwani and Bisht, 2012; Kim and Prabhakar, 2004). Thus, a direct causal path was proposed between self-efficacy and trust. The forthcoming subsections provide more justification and discussion regarding these constructs and their associated hypotheses.

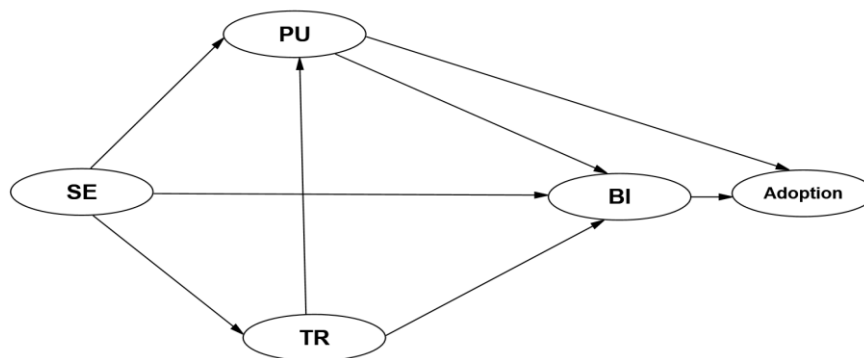


Figure 1: Conceptual Model (Source: Adapted from Compeau and Higgins, 1995; Davis et al., 1989; Gefen et al., 2003)

Perceived Usefulness (PU)

Davis et al. (1989, p.320) defined PU as "the degree to which a person believes that using a particular system would enhance his or her job performance." Customers have been largely found to be motivated to adopt online banking channels by increasing the level of functional utilities perceived in using such channels (i.e. Akturan and Tezcan, 2012; Zhou, 2012). Empirically, there are a number of researchers who have supported the significant influence of PU (i.e. Curran and Meuter, 2005; Sundarraj and Wu, 2005) or its similar factors such as relative advantage (i.e. Kolodinsky et al., 2004; Liao et al., 1999) on the customers' intention to adopt Telebanking. Furthermore, it could be argued that actual adopters could be more able to perceive the advantages and benefits extracted from using the technology (Meuter et al., 2005). In the line with this thought, Sundarraj and Wu (2005) approved a direct significant path between perceived usefulness and actual use behaviour with a regression weight of 0.43. In their study to examine the acceptance of Internet banking by Jordanian customers, Al-Qeisi and Abdallah (2013) also reported a significant relationship between performance

expectancy as a similar factor to PU and actual usage behaviour. Consequently, this study proposes the following hypothesis:

H1: Perceived usefulness will positively influence both Jordanian customers' intention to adopt and actual adoption of Telebanking.

Trust (TR)

Trust (TR) was defined as “individual willingness to depend based on the beliefs in ability, benevolence, and integrity” (Gefen et al., 2003, p.161). The customers’ decision to adopt or reject online banking channels largely depends on the extent of how much the customer perceives these channels as a trustworthy way to attain the banking services (Eriksson et al., 2005; Alalwan et al., 2015). This could be attributed to the particular nature of the electronic financial services especially given the absence of personal contact between customers and banking employees (Flavián et al., 2006; Hwang and Kim, 2007; Kim and Prabhakar, 2004; Rexha et al., 2003). Therefore, in such an area, customers have been found to depend on trust so as to lessen their concerns and to approve their decision to use the targeted system (Flavián et al., 2006; Gefen et al., 2003). In line with the proposition by Gefen et al. (2003), customers’ trust could play a further role via enhancing the benefits and values associated with using the targeted system. From this perspective, trust could have a direct impact on BI or an indirect impact by mediating the influence of PU. This assumption has been empirically supported by Eriksson et al. (2005) who approved a significant relationship between TR and BI. Thus, this study assumes the following hypotheses:

H2: Trust will positively influence Jordanian customers' intention to adopt Telebanking.

H3: Trust will positively influence PU of using Telebanking.

Self-Efficacy (SE)

Conceptually, self-efficacy was termed by Bandura (1986, p.391) as “people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances.” As a using Telebanking needs customers to fully produce the banking services without any assistance from banking staff, customers’ beliefs and assessment of their ability could largely motivate or discourage them to adopt Telebanking. In prior literature, SE has largely supported and played a key role in shaping the customers’ intention to adopt

different kinds of online banking channels (i.e. Gu et al., 2009; Lassar et al., 2005). In addition to its direct influence on the BI, SE could have a key role in predicting the customers' perception and beliefs related to using the targeted technology (Compeau and Higgins, 1995). For instance, a study examining adoption of Mobile banking conducted by Zhou (2012) confirmed a significant relationship between SE and customer trust in Mobile banking. Another study of adoption of Internet banking by Wang et al. (2003) also asserted that SE enjoys a considerable role in promoting a significant influence of perceived credibility and PU. Thus, this study proposes the subsequent hypotheses:

H4: Self-efficacy will positively influence Jordanian customers' intention to adopt Telebanking.

H5: Self-efficacy will positively influence Jordanian customers' trust in using Telebanking.

H6: Self-efficacy will positively influence perceived usefulness of using Telebanking.

Behavioural Intention (BI)

BI could be defined as customers' tendency and willingness to adopt the new technology (Davis et al., 1989). Over the prior literature of IS and technology acceptance, BI has been largely discussed and reported as the most powerful factor to determine the individual behaviour towards the new technology (Ajzen, 1991; Venkatesh et al., 2012). By the same token, BI has been widely approved over the relevant literature as a direct factor influencing the acceptance and adoption of electronic banking channels (i.e. Alalwan et al., 2015; Jaruwachirathanakul and Fink, 2005; Kim and Forsythe, 2010). Thus, the forthcoming hypothesis proposes that:

H7: Behavioural intention will positively influence the adoption of Telebanking.

Research Methodology

In total, 500 survey questionnaires were distributed to obtain the required data from a convenience sample of Jordanian banking customers from two main cities in Jordan (Amman and Al-Balqa). Most of the respondents in the current study sample are actual users of Telebanking who have used one or more of the Telebanking services.

Even though samples generated by the probability sampling technique are more likely to be free of sampling bias and their inferences are usually characterised by a higher degree of generalisability (Bhattacharjee, 2012), using such a technique was found to be difficult in the current study. Indeed, a number of requirements that are necessary to be met to successfully apply this technique were not available in the sampling frame of the current study (i.e. an updated, credible and comprehensive list of the Jordanian banking customers) (Castillo, 2009; Dwivedi et al., 2006). Furthermore, with a large size and a widespread population, as in the case of Jordanian banking customers, accessing the targeted samples by means of a probability sampling technique seemed to be a more difficult and impractical technique (Bhattacharjee, 2012; Castillo, 2009). Furthermore, due to privacy and security reasons, Jordanian banks were unable to provide any information regarding their customers' contacts and addresses which, in turn, created further difficulties for employing any kind of probability sampling (Castillo, 2009; Dwivedi et al., 2006). Bearing in mind the above mentioned reasons, convenience sampling was deemed most suitable sampling technique to be applied in the present study (Castillo, 2009; Dillon et al., 1994). Theoretically, convenience sampling has been found as one of the most popular and frequently used sampling techniques applied to the studies of organisations and consumers (Bryman and Bell, 2007). Furthermore, several studies either in the technology acceptance field (i.e. Taylor and Todd, 1995) or in the relevant context of online banking channels have successfully used the convenience sampling technique (i.e. Alalwan et al., 2015; Al-Ashban and Burney, 2001; Curran and Meuter, 2005; Purwanegara et al., 2014; Zhou et al., 2010).

However, in order to address the main critical issues related to convenience sample (i.e. generalizability, representativeness, and sampling bias), an adequate sample size was a target by researchers over the data collection process. Researchers were also keen to capture a sample considering the diversity in the banking client's profiles and characteristics. The respondents of the current study were recruited using different ways. For instance, questionnaires were allocated directly to the targeted participants at the bank branches. The researchers also approached the targeted respondents through allocating and collecting the questionnaire via banking staff. Other respondents were approached at their own places as well such as staff, Master's degree and Bachelor's degree students in a number of the universities and educational institutes, employees in the public or private sector and personnel from different institutions.

A sample size of at least 200 responses is highly recommended by Kline (2005) to be used when the proposed model is complex and comprising of many constructs and causal paths. In the line with Kline's (2005) suggestions, a strong SEM should also employ a sample size of a minimum of 200 responses as asserted by Harris and Schaubroeck (1990) and Gerbing and Anderson (1993). The sample size of not less than 200 and not higher than 400 is stated by Hair et al. (1998) to be more accurate and suitable as well. This is because the estimation of a maximum likelihood becomes more sensitive when the employed sample is above 400. In addition to this, some fit indices (i.e. chi-square) are more sensitive to a larger sample size, and they could indicate a poor fit model via using a larger sample size higher than 400 (Carmines and McIver, 1981; Hair et al., 1995; Hair et al., 2006). According to the aforementioned discussion, the size of the sample extracted in the current study – (323 usable responses) - was found suitable to be subjected for further analyses in SEM in the current study.

The main constructs of the conceptual model were measured by 25 scale items adapted from Compeau and Higgins (1995); Davis et al. (1989); and Gefen et al. (2003) (see Appendix 1). Accurately, the main items of BI and PU were drawn from Davis et al. (1989). While the scale for TR was drawn from Gefen et al. (2003), whilst SE was measured by scales from Compeau and Higgins (1995) (see Appendix 1). All of these items were measured using the 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7) (Dwivedi et al., 2006). As seen in Appendix 1, a group of five frequently adopted and used electronic banking services were adopted to assess the adoption behaviour of Telebanking. These services have been widely adopted by relevant studies that have examined adoption of BI (i.e. Kolodinsky et al., 2004; Liao et al., 1999). The questionnaire also included six closed-ended questions to represent the respondent's demographic characteristics. The questionnaire was translated into Arabic using the back translation method as recommended by Brislin (1976) since the native language of banking customers in Jordan is Arabic.

Results

Respondents' Profile and Characteristics

Out of the 500 distributed, 323 valid questionnaires were completed by the respondents; the vast majority of them (64.1%) were male whilst 35.9% of the respondents were female. It was also noticed that the age group of 25-40 captured the largest part of the total valid sample

(68.2 %). The largest group of respondents (50.5%) has a monthly income level ranging from 400 to 800 Jordanian dinars. Further, the descriptive statistics show that the most prominent educational level of respondents (67.5%) was the Bachelor's degree or above. Moreover, the great mass of respondents was observed to have a sufficient level of computer experience (85.5%) and Internet (82.25%) for more than three years.

Structural Equation Modelling (SEM) Analysis

The two-stage approach of SEM was employed to analyse the empirical data (Byrne, 2010). The model fitness and the constructs' reliability and validity were assessed in stage one (the measurement model analyses) by means of the confirmatory factor analyses (CFA) followed by validating the conceptual model and verifying the research hypotheses in stage two: the structural model analyses (Byrne, 2010; Hair et al., 2010).

As seen in Table 1, the yielded fitness indices regarding the initial measurement model were realised as follow: ($\chi^2=645.204$, DF = 160, P = 0.000), CMIN/DF =4.089, GFI= 0.829, AGFI= 0.775, NFI= 0.898, CFI= 0.920 and RMSEA= 0.085. Owing to the fact that some of these indices were not able to reach their threshold value, namely CMIN/DF (≤ 3), GFI (≥ 0.900), NFI(≥ 0.900), AGFI (≥ 0.800) and RMSEA($0.08 \leq 3$) (Hair et al., 2010), further purifications and reassessments were done so as to enhance the model fitness.

By inspecting of standardised regression weights (factor loading), two items (TR1 and TR4) from trust, one item (SE1) from self-efficacy and one item from adoption (service 5) were observed to have a factor loading under their cut-off value of .50, and hence, the decision was to remove these items. By doing so, the CFA was tested again without these redundant items, and as expected the model fitness improved considerably. Even though the value of chi-square ($\chi^2=291.137$, DF = 109, P = 0.000) was still significant, the rest of the fit indices of the modified measurement model, as seen in Table 1, were found to be within their recommended values: CMIN/DF was 2.671, GFI= 0.905, AGFI= 0.867, NFI= 0.944, CFI= 0.964 and RMSEA= 0.65 (Hair et al., 2010).

Table 1: Results of Measurement Model

Fit indices	Cut-off point	Initial measurement model	Modified measurement model
CMIN/DF	≤ 3.000	4.089	2.671
GFI	≥ 0.90	0.829	0.905
AGFI	≥ 0.80	0.775	0.867

NFI	≥ 0.90	0.898	0.944
CFI	≥ 0.90	0.920	0.964
RMSEA	≤ 0.08	0.085	0.065

All constructs were also tested to ensure an adequate level of reliability using both composite reliability (CR) and average variance extracted (AVE). As shown in Table 2, all latent constructs have CR value above the cut-off point of 0.70 (Hair et al., 2010) ranging between 0.83 for adoption and 0.94 for BI. Likewise, the AVE value for all latent constructs existed within their respective level of 0.50; while the highest value of AVE (0.81) was noticed for BI, the minimum value was exhibited by adoption (0.57) as well (Fornell and Larcker, 1981; Hair et al, 2010).

Table 2: Construct Reliability

Latent Constructs	CR	AVE
BI	0.94	0.81
PU	0.93	0.79
TR	0.87	0.61
SE	0.88	0.67
Adoption	0.83	0.57

Both convergent and discriminant validities were inspected to measure the constructs' validity. Relating to the convergent validity, the statistical findings noted that all undeleted items had a factor loading as low as 0.73 which surpasses their cut-off point of 0.50; they were also found to be statistically significant with a *p* value less than .0001 (Hair et al., 2010). With regard to discriminant validity, as seen in Table 3, all latent constructs had the squared root of AVE higher than their inter-correlation estimates with other corresponding constructs.

Table 3: Discriminant Validity

Latent Constructs	BI	PU	TR	SE	Adoption
BI	0.90				
PU	0.78	0.89			
TR	0.73	0.74	0.78		
SE	0.64	0.67	0.63	0.82	
Adoption	0.65	0.58	0.49	0.44	0.75

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

The conceptual model was validated in the second stage of the SEM analyses: structural model with 7 hypothesised paths. The fit indices of the structural model were tested and found to be within their acceptable level: such as CMIN/DF=2.682; GFI=0.902; AGFI=0.85;

NFI=0.936; CFI=0.959 and RMSEA=0.069. Thus, the structural model adequately fitted the observed data (Hair et al., 2010). Besides, the structural model was able to explain 68%, 44% 58% and 40% of variance in BI, PU and TR respectively (see Figure 2). Furthermore, an assessment of the path coefficients showed that PU ($\gamma=0.47$, $p<0.001$); TR ($\gamma=0.33$, $p<0.001$); and SE ($\gamma=0.12$, $p<0.041$) were all found to be significant predictors of BI. TR ($\gamma=0.47$, $p<0.001$) and SE ($\gamma=0.37$, $p<0.001$) were recognised as a considerable determinant of PU. Likewise, TR was significantly and positively influenced by SE ($\gamma=0.64$, $p<0.001$). Finally, the adoption of Telebanking was significantly predicted by both BI ($\gamma=0.49$, $p<0.001$) and PU ($\gamma=0.20$, $p<0.017$). Therefore, all research hypotheses H1, H2, H3, H4, H5, H6, and H7 are all supported.

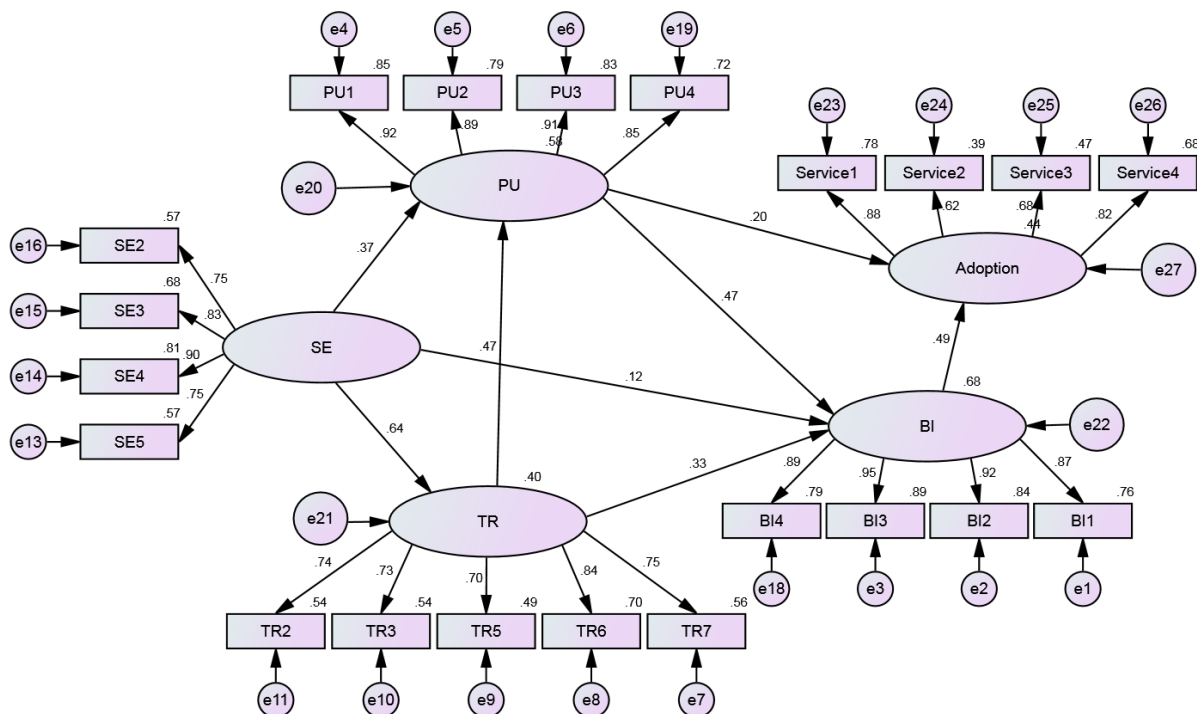


Figure 2: Validation of the Conceptual Model

Discussion

Four factors - BI, PU, TR and SE - were selected from prior literature of IS and online banking for proposing the conceptual model utilised in this study to explain the Jordanian customers' intention and adoption towards technology (i.e. Telebanking) that has yet to be examined in Jordan. According to the statistical results of the structural model, the conceptual model proposed was able to adequately fit the observed data as well as to account for a large portion of variance in both BI (68%) and adoption (44%). Noticeably, such values of variance accounted in the current study were observed within a highly acceptable level which

exceeded all the recommended values in this regard (Straub et al., 2004). Furthermore, the values of variance accounted by the current study were higher than those accounted by other studies in the same area of interest such as: 42% in BI by Curran and Meuter (2005) and 24% actual usage behaviour by Sundarraj and Wu (2005).

According to the path coefficient analyses, PU has been able to have the largest significant impact on BI with a regression weight of .47. This means that for those customers who perceive Telebanking as a useful technology in contributing to their daily life, they are more likely to have a higher intention to adopt such a system. The adoption of Telebanking was also observed to be significantly influenced by PU. This, in turn, supports the proposition introduced by the current study that actual adopters of Telebanking are more interested in the functional utilities (i.e. PU) that are related to such a system in formulating their decision to adopt it. As any other kind of online banking channel, Telebanking has been widely attributed as a more convenient channel in allowing customers to access a wide range of services with flexibility in time and place. Such results related to the role of PU were inconsistent with other studies that have addressed the important influence of PU on the customers' intention to adopt online banking channels (i.e. Alalwan et al., 2015; Curran and Meuter, 2005; Eriksson et al., 2005; Kesharwani and Bisht, 2012; Rawashdeh, 2015; Sundarraj and Wu, 2005). In their study to examine the customer acceptance of Internet banking in Estonia, Eriksson et al. (2005) noticed a strong relationship between perceived usefulness and perceive use of Internet banking with coefficient value of 0.55. Over the developing countries (such as India), Kesharwani and Bisht (2012) have approved a strong impact of perceived usefulness on the customers' intention to adopt Internet banking with regression weight of 0.59.

TR was also empirically confirmed to be a significant factor determining both BI and PU. This demonstrates that Jordanian customers are more concerned about the aspects related to TR in formulating their intention to adopt Telebanking. Also, PU was found to be profoundly influenced by the role of TR. To put it differently, increasing the level of customer trust in using Telebanking not only enhances the customers' willingness to adopt such a system but also strengthens the positive perception of the usefulness of using Telebanking. The crucial role of TR could return to the nature of online banking area which is universally characterised by a high uncertainty, intangibility, heterogeneity and vagueness along with the absence of human interaction (Kim and Prabhakar, 2004; Rexha et al., 2003). Such a positive role of TR has been empirically addressed and approved by Gefen et al. (2003) who accounted a

regression weight of 0.26 for the path between TR and both BI and PU. With coefficient value of 0.42, trust was also confirmed as a crucial factor predicting customer intention to use Internet banking over the low-income countries (Akhlaq and Ahmed, 2013). Likewise, Grabner-Kräuter and Faullant (2008) found out that customer attitudes toward using Internet banking were significantly shaped by the role of Internet trust. In Jordan, Alalwan et al. (2015) have recently provided further evidence supporting the role of trust on the customer's intention to use Internet banking with regression weight of 0.32.

As anticipated, SE was empirically proved by the current study to have a significant influence on BI, TR and PU. This considerable role of SE over the conceptual model reflects that if customers positively assess and are confident in their ability to effectively use Telebanking services, they are more likely to trust and positively value the Telebanking technology. By increasing the daily interaction with technology and Mobile innovation and having an adequate level of technological savvy, awareness, skills, and knowledge, individuals are more likely to be confident in their ability to get used to new technology, and accordingly, they are more likely to positively evaluate trust in technology (Venkatesh et al., 2012). Existing literature related to the IS area (i.e. Compeau and Higgins, 1995) or online banking (i.e. Alalwan et al., 2015; Gu et al., 2009; Lassar et al. 2005; Hernandez and Mazzon, 2007; Zhou, 2012) has largely supported the crucial role of SE. For instance, SE was supported to have a strong impact on the customer's adoption of e-banking by Lassar et al. (2005). Another strong association between SE and customer's intention to adopt Internet banking was confirmed by Hernandez and Mazzon (2007) with regression weight of 0.30 as well. Jordanian customers were also noticed to have high trust and large motivation to adopt Internet banking if they have higher degree of self-efficacy as reported by Alalwan et al. (2015).

Theoretical and Practical Contributions

This study was able to comprise a fundamental contribution by examining the Telebanking as a more novel technology in Jordan which has not been examined yet. Accordingly, the current study has successfully formulated a deep view regarding the most important aspects predicting the Jordanian customers' intention towards such an emerging system. This also helps to provide practical guidelines for banks to choose a suitable marketing strategy that could enhance the customers' adoption of Telebanking as discussed below. This study therefore goes beyond what has been proposed and examined over the prior literature of

Telebanking by proposing new causal paths between the main antecedents of BI. This study has added a contribution by examining the impact of SE on PU and TR as well as proposing a direct path from TR to PU.

From a practical perspective, the results also provided clues for Jordanian banks about the important influence of SE. Therefore, Jordanian banks should offer an effective, personal and practical programme that will train and educate customers on how they can efficiently use Telebanking and how it could be more beneficial in enhancing the customers' self-efficacy as well as helping them to cope with any problems that could arise whilst using Telebanking (Compeau and Higgins, 1995). By the same token, aspects relating to TR must be the focus of attention for any bank. For instance, maintaining the certainty of the Telebanking area could improve the customers' perceived reliability and thereby improve their trust (Kim and Prabhakar, 2004). Technical and legal cooperation between banks and authorities in developing well-protected and well-secured platforms for online services or in formulating electronic laws could enhance the customers' confidence in using these channels (Jaruwachirathanakul and Fink, 2005). Furthermore, expanding the range of financial services provided by Telebanking and maintaining the permanency of their performance efficiently and effectively 24/7 will certainly support the role of both PU and TR (Zhou et al., 2010). Banks should also choose a suitable communication channel to convince the customers about the advantages attained by using the Telebanking channel.

Conclusions

The current study was conducted so as to provide further understanding about the main aspects that could determine the Jordanian customers' intention and adoption of Telebanking. Therefore, it was formulated and empirically examined a parsimony conceptual model comprising a set of the most important factors; namely SE, TR, and PU. Specifically, BI was proposed to be predicted by three factors mentioned above while both BI and PU were identified as key factors determining the adoption of Telebanking. Further, such causal interactions were added to the conceptual model (i.e. SE→ TR; SE→ PU; and TR→ PU). Data collected from a convenience sample of 323 respondents in Jordan were analysed using the SEM. The main statistical findings largely supported the adequacy of the conceptual model in both terms of goodness of fit to data and its predictive validity. Furthermore, all the researches' hypotheses proposed were supported which, in turn, provides further evidence

supporting the current study's model to predict the Jordanian customers' intention and adoption of Telebanking. Furthermore, having a systematic process in doing this, a contribution is exhibited by proposing a robust conceptual model, and accordingly, opening prospects to re-apply and retest this model to explain customers' intention and behaviour towards different technologies in different contexts and over developed and developing countries as well.

Limitations and Future Research Directions

This study is restricted by some limitations. For instance, the data of the current study was obtained by using a convenience sample of Jordanian banking customers; this could negatively reflect on the results' generalisability. Consequently, it would be worthwhile for future studies to use different sampling techniques (i.e. probability sampling) to capture more generalizability of the Jordanian banking customers. The main results of the current study have been extracted based on quantitative approach, and accordingly, applying qualitative study would provide a further deep picture regarding the main aspects that could form the Jordanian customers' perception and behaviour toward Telebanking technology. This study also concentrated on the customers' intention and adoption of Telebanking; yet, it does not examine the consequences of using such technology on the customers' satisfaction and loyalty. Therefore, these aspects (e.g. customer satisfaction and loyalty) could be a more valuable direction to be examined by future researchers. In addition, this study fully focused on the customers' perspective; yet, it has not looked at this problem from the service providers' perspective. Therefore, future studies should look at this challenge from the service providers' perspective in order to provide a full picture by clarifying the main aspects related to the successful implementation and adoption of Telebanking from both sides; customers and service providers (banks). The conceptual model of the current study has covered few factors. Indeed, there are several aspects that have been documented over the prior studies that should be considered by future studies such as technology readiness, technology anxiety, intrinsic motivation, facilitating conditions, and social influence. Furthermore, choosing a theoretical foundation appropriate to the customers' perspective is a necessity to provide full picture capturing the most important aspects considered by customers in forming their intention and behaviour toward Telebanking (Alalwan et al., 2013; Venkatesh et al., 2012). Telebanking technology has been introduced by banks for long time in comparison with other banking channels (i.e. Internet banking and Mobile banking). This,

in turn, creates a need to examine these technologies to see if these aspects are same or they could be different.

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Appendix 1: Constructs' Items

Construct		Items
Perceived Usefulness	PU1	I find Telebanking useful in my daily life.
	PU2	Using Telebanking increases my chances of achieving tasks that are important to me.
	PU3	Using Telebanking helps me accomplish tasks more quickly.
	PU4	Using Telebanking increases my productivity.
Behavioural Intention	BI1	I intend to use Telebanking in the future.
	BI2	I will always try to use Telebanking in my daily life.
	BI3	I plan to use Telebanking in future.
	BI4	I predict I would use Telebanking in the future.
Trust	TR1	I believe that Telebanking is trustworthy.
	TR2	I trust Telebanking.
	TR3	I do not doubt the honesty of Telebanking.
	TR4	I feel assured that legal and technological structures adequately protect me from problems on Telebanking.
	TR5	Even if not monitored, I would trust Telebanking to do the job right.
	TR6	Telebanking has the ability to fulfil its task.
Self-efficacy	SE1	I could complete a transaction using Telebanking if there was no one around to tell me what to do.
	SE2	I could complete a transaction using Telebanking if I could call someone for help if I got stuck.
	SE3	I could complete a transaction using Telebanking if I had a lot of time to complete the job I started.

	SE4	I could complete a transaction using Telebanking if I had just the built-in help facility for assistance.
	SE5	I could complete a transaction using Telebanking if I had never used a system like it before.
Adoption	Service 1	Balance enquiries
	Service 2	Funds transfer
	Service 3	Requesting cheque book or bank certificates
	Service 4	Paying bills
	Service 5	Request increase in credit card(s) limit or pay any balance due