
Original Article

Consumer adoption of Internet banking in Jordan: Examining the role of hedonic motivation, habit, self-efficacy and trust

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ABSTRACT Despite the rapid growth of Internet banking (IB), customers in developing countries still hesitate to adopt this technology and its use in the Middle East remains low. This study aims to identify and examine the factors that predict behavioural intention and adoption of IB in Jordan. Four factors – hedonic motivation, habit, self-efficacy and trust – are proposed in a conceptual model. Data was collected by means of a survey with bank customers in Jordan. Structural equation modelling (SEM) was used to analyse the data. The results strongly supported the conceptual model. Further, hedonic motivation, habit, self-efficacy and trust were all confirmed to have a significant influence on behavioural intention. Trust was found to be strongly predicted by both hedonic motivation and self-efficacy. This study provides both academics and practitioners with an insight into the factors that can be used to encourage customer adoption of IB specifically in a Middle East context.

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INTRODUCTION

With the improvement of the Internet and Wi-Fi technologies, Internet banking (IB) has become an essential part of the banking logistic system to provide suitable solutions to meet the growing demand of customers for financial services (Curran and Meuter, 2007). By using the Internet, this innovative channel provides customers with a wide range of financial services (that is, balance enquiries, fund transfers, paying bills), a higher quality of service and at a time and place appropriate to customers (Liao *et al*, 1999). The rapid spread of such services could be attributed to their feasibility rather than to traditional banking channels. Indeed, IB is considered the least costly banking channel compared with any other bank channels, that is, traditional branches, ATM and Telebanking (Cuevas, 1998; Hall *et al*, 1999; Kolodinsky *et al*, 2004; DeYoung *et al*, 2007).

Jordan has one of the fastest growing Internet, mobile and telecommunication technology sectors of all countries in the Middle East (*The Gulf Today*, 2012). It is important to note that over 55 per cent of the Jordanian people have Internet subscriptions (*The Jordan Times*, 2013). Hence, Jordanian banks, operating under intense competition, have started taking advantage of the current technological prosperity in Jordan to

implement online banking channels (Migdadi, 2012). For instance, out of the 26 different banking institutions in Jordan, 23 have implemented IB. Jordanian banks have launched such services in order to have a wider geographical reach, to cut operation and labour costs, to contribute to service value and quality, to enhance customer satisfaction and loyalty and to maintain and enlarge their market share (Awwad and Ghadi, 2010; Khraim *et al*, 2011; Al-Rfou, 2013).

However, implementing IB will not be feasible unless customers widely accept it as a full alternative to the traditional encounter (Curran and Meuter, 2007). Yet, customers still hesitate to adopt this technology, especially in the case of developing countries (Riffai *et al*, 2012). For instance, a ComScore report (2012) illustrated that the lowest penetration rate of online banking Websites worldwide was in the Middle East and Africa (8.8 per cent of Internet users). Jordanian banks have also been suffering from a lower adoption rate of such technologies as reported by both AbuShanab *et al* (2010) and Alalwan *et al* (2014).

Persuading customers to accept electronic financial services is not an easy process given their complex and sensitive nature and the need for customers to change their habits and behaviour (Curran and Meuter, 2005). Such

issues have also been the most important challenge regarding the successful implementation of IB (Curran and Meuter, 2007). Therefore, there is always a necessity to identify and examine the most important factors hindering or facilitating customers' intention and adoption of IB. However, as mentioned above, such issues of customers' intention and adoption of IB have rarely been addressed in Jordan (that is, AbuShanab *et al*, 2010; Alalwan *et al*, 2014). Accordingly, the aim of the current study is to identify and examine the factors that predict the behavioural intention and adoption of IB in Jordan.

LITERATURE

Examining the adoption and acceptance of IB has formed a significant part of related literature of online banking channels (Martins *et al*, 2014). Theoretically, several factors have been examined and verified as key determinants of customer intention and usage of IB. For instance, performance expectancy, effort expectancy and social influence were found to be significant factors influencing customers' intention to adopt IB (Riffai *et al*, 2012; Martins *et al*, 2014). Further, Curran and Meuter (2007) indicated that the expected outcomes of using IB, like utility and enjoyment, were found to contribute to customer willingness to adopt IB. Shih and Fang (2004) also reported that the actual usage of IB was strongly associated with behavioural intention. According to Walker and Johnson (2006), a customer's predisposition to adopt IB was also significantly predicted by customer beliefs regarding their ability and capacity to apply such technology effectively.

There are also a number of IB studies that have discussed the role of hedonic motivation using different concepts (that is, intrinsic motivation, playfulness and enjoyment). For instance, Celik (2008) provided empirical evidence demonstrating the role of playfulness in predicting both perceived usefulness and perceived ease of use. Similarly, Riffai *et al* (2012) identified playfulness as a significant contributor to customer intention to adopt

online banking in Oman. Other statistical results from Akhlaq and Ahmed (2013) strongly support the impact of intrinsic motivation on customer trust that, in turn, positively enhances customer inclination to adopt IB.

As for the role of habitual behaviour on customer intention and adoption of IB, quite a few researchers have examined such a role (Kolodinsky *et al*, 2004; Wan and Che, 2004; Laukkanen *et al*, 2008). Further, most of those researchers have deliberated the negative role of habitual behaviour towards human encounters in hindering the adoption of electronic banking channels (that is, Wan and Che, 2004; Kuisma *et al*, 2007; Laukkanen *et al*, 2008). With regards to self-efficacy, Wang *et al* (2003) demonstrated that perceived ease of use, perceived usefulness and perceived credibility are positively determined by self-efficacy. Perceived ease of use was also noticed by Al-Somali *et al* (2009) to be influenced by self-efficacy.

IB's characteristics (that is, compatibility, complexity, trialability and convenience) have been commonly recognised as key drivers in explaining a considerable variance in customer intention and acceptance of IB (Liao *et al*, 1999; Kolodinsky *et al*, 2004; Shih and Fang, 2004). However, a number of researchers (that is, Flavián *et al*, 2006; Casaló *et al*, 2007; Martins *et al*, 2014) have addressed customers' perceptions differently regarding the aspects pertaining to privacy, security, risk and trust and how these aspects could shape customer intention to use IB.

In Jordan, AbuShanab *et al* (2010) empirically examined customer intention to adopt IB, and supported the significant role of performance expectancy, social influences, effort expectancy, trust and self-efficacy. Recently, performance expectancy was approved by Al-Qeisi and Abdallah (2013) as a mediating factor between Website quality and the actual usage of IB. Al-Majali (2011) reported perceived risk, trust, awareness, and social influences, subjective norms and attitudes as key predictors of customer intention to adopt IB. Al-Smadi (2012) also supported the role of cultural aspects and perceived risk in shaping the Jordanian

customers' perceptions and intentions towards IB. Indeed, these studies provided an initial understanding of factors that may determine the intention and use of IB in Jordan. However, there are other important factors (for example, habit and intrinsic motivation) that have not received any attention in studies undertaken in Jordan. In addition, important interaction relationships such as between intrinsic motivation with trust and self-efficacy with trust have been ignored by these studies as well. Thus, this study is motivated to fill this gap by proposing a conceptual model that is able to cover the most important aspects that could shape Jordanian customers' intention and adoption of IB.

CONCEPTUAL MODEL

As seen in Figure 1, four factors – hedonic motivation (HM), habit (HT), self-efficacy (SE) and trust (TR) – have been included within the proposed conceptual model. Both HM and HT were proposed and validated by Venkatesh *et al* (2012) to address technology adoption from the customer perspective. TR and SE have been widely noticed over the prior literature of IB as key factors predicting customer intention and adoption of such an emerging system (Wang *et al*, 2003; Eriksson *et al*, 2005; Akhlaq and Ahmed, 2013). In addition to the important

role of these factors (trust and self-efficacy) in shaping customer perception and intention to adopt IB as addressed in the related hypotheses of these factors, there is always a need to address the main antecedents that could predict customer trust. Therefore, one important factor associated with the customers' personality (self-efficacy) was added as a key predictor of both customer trust and intention to adopt IB.

The hypotheses development and justification of the constructs are discussed further in the following subsections.

Habit (HT)

HT was defined by Venkatesh *et al* (2012, p. 161) as 'the extent to which people tend to perform behaviours automatically because of learning'. According to Davis and Venkatesh (2004), habit has been recognised as an alternative determinant of technology usage along with behavioural intention.

Conceptually, habit is more related to automaticity behaviour, which is formed by an accumulation of knowledge, experience and skills over time (Limayem *et al*, 2007; Venkatesh *et al*, 2012). Accordingly, Venkatesh *et al* (2012) conceptualised that habit was a cognitive construct, which could be associated with usage behaviour either directly or indirectly by having a mediating impact of behavioural intention. It

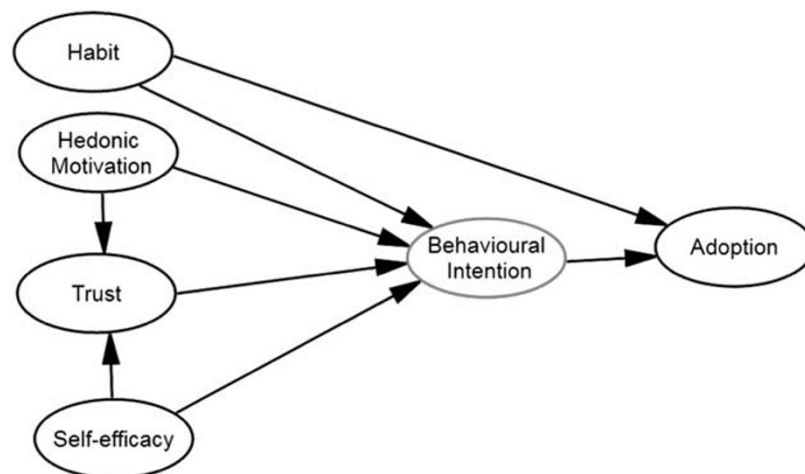


Figure 1: Conceptual model of the adoption of IB by Jordanian customers. Source: Compeau and Higgins (1995), Gefen *et al* (2003), Venkatesh *et al* (2012).

is also worth mentioning that aspects related to habitual behaviour towards human encounter have been discussed as barriers hindering the customers' adoption of online banking channels (Laukkanen *et al*, 2008). However, the current study adopted the proposition of Venkatesh *et al* (2012) that suggested a positive relationship between HT and both BI and actual usage behaviour. Such positive relationship has been supported by a number of studies in the same area of interest (that is, Kolodinsky *et al*, 2004; Eriksson *et al*, 2008). Accordingly, this study proposes the following hypotheses:

Hypothesis 1: Habit will positively influence intention to adopt IB.

Hypothesis 2: Habit will positively influence adoption of IB.

Hedonic motivation (HM)

According to Venkatesh *et al* (2012), HM is conceptualised as the feeling of cheerfulness, joy and enjoyment, which are stimulated by using technology. Regarding customer context, it has been largely argued that the importance of intrinsic utilities (fun, playfulness, enjoyment) is significant in shaping the customers' perception and intention to adopt new systems (Dabholkar and Bagozzi, 2002; Dabholkar *et al*, 2003; Van der Heijden, 2004; Hwang and Kim, 2007). More importantly, IB has been attributed to be a more modern and pioneering technology comprising further innovativeness and novelty seeking (Riffai *et al*, 2012); hence, using such technology could accelerate further intrinsic motivation (Venkatesh *et al*, 2012). Theoretically, the factors related to HM (for example, perceived enjoyment, playfulness, entertainment and fun) have been widely recognised as some of the most influential factors predicting customers' intention to adopt IB (Curran and Meuter, 2007; Celik, 2008; Riffai *et al*, 2012). Furthermore, Hwang and Kim (2007)

documented the impacting role of intrinsic motivation (perceived enjoyment) on both dimensions of e-trust: integrity and ability. This means that customers who perceive using IB as being fun and entertaining, are more likely to use and trust such a channel. This thought has been supported by Akhlaq and Ahmed (2013) who empirically confirmed the role of intrinsic motivation in contributing to customer trust in IB. Therefore, the following hypotheses are:

Hypothesis 3: Hedonic motivation will positively influence intention to adopt IB.

Hypothesis 4: Hedonic motivation will positively influence trust in using IB.

Trust (TR)

Gefen *et al* (2003, p. 161) conceptualised trust as 'individual willingness to depend based on the beliefs in ability, benevolence, and integrity'. Indeed, trust has been broadly recognised as a key determinant of a wide range of human behaviours, particularly those that pertain to the extent of anonymous and high-perceived risk (Gefen *et al*, 2003; Eriksson *et al*, 2005; Flavián *et al*, 2006; Kim *et al*, 2009). TR has been widely regarded as an important determinant of customers' intentions and the adoption of IB (that is, Flavián *et al*, 2006; Akhlaq and Ahmed, 2013). The particular interest in such a factor could be attributed to the high uncertainty, intangibility, heterogeneity and vagueness characterised in the online banking channels, along with the absence of human interaction (Gefen *et al*, 2003). Further, customers seem to be more sensitive when it comes to financial issues that, in turn, explains why customers are likely to rely on trust as a mechanism to alleviate their concerns about a technology and to support their decision to use such technology (Gefen *et al*, 2003). Over the prior literature, there are many studies that have empirically examined and demonstrated a relationship between TR and BI (that is, Eriksson *et al*,

2005; Riffai *et al*, 2012). Hence, this study postulates the following hypothesis:

Hypothesis 5: Trust will positively influence intention to adopt IB.

Self-efficacy (SE)

According to Bandura (1986, p. 391), SE is defined as ‘people’s judgments of their capabilities to organise and execute courses of action required to attain designated types of performances’. Put differently, if customers believe in their ability to successfully apply and use the IB services, they are more likely to have a higher willingness to adopt such a channel (Wang *et al*, 2003). This is particularly interesting considering the nature of IB as a self-service channel requiring customers to produce the financial transactions independently. Therefore, several studies have validated the impacting role of SE on the customers’ intention to adopt IB (that is, Walker and Johnson, 2006; AbuShanab *et al*, 2010). SE could also contribute to BI indirectly via the shaping of the customers’ beliefs and perceptions (that is, perceived risk, TR, usefulness, ease of use) towards the targeted technology (Compeau and Higgins, 1995; Wang *et al*, 2003; Zhou, 2012). Accordingly, customers could more likely trust in IB if they have a positive perception and judgement in their capability to properly conduct IB transactions. This thought has been empirically confirmed by Zhou (2012) who supported the considerable role of SE in shaping customers’ initial trust in Mobile banking. Similarly, Wang *et al* (2003) confirmed a relationship between SE and perceived credibility in using IB. Thus, this study proposes the subsequent hypotheses:

Hypothesis 6: Self-efficacy will positively influence intention to adopt IB.

Hypothesis 7: Self-efficacy will positively influence trust in using IB.

Behavioural intention (BI)

BI has been used widely as a key determinant of individual behaviour over the technology acceptance stream (Dwivedi and Irani, 2009). Further, prior literature in IB has strongly supported BI as a decisive driver of the actual usage behaviour of IB (for example Shih and Fang, 2004; Jaruwachirathanakul and Fink, 2005; Martins *et al*, 2014). Accordingly, this study formulates the following hypothesis:

Hypothesis 8: Customer intention will positively influence the adoption of IB.

Adoption

According to Rogers (2003), adoption of IB was conceptualised as a customer’s decision to fully use and apply the IB channel to attain the financial services. Indeed, the main challenge for the success of IB not only depends on providing this emerging application but rather attracting customers to accept such a system as a full alternative instead of a human encounter (Curran and Meuter, 2007). Thus, there is a need to understand and study the factors that hinder or contribute to customers’ intentions and behaviours towards such technology.

METHODOLOGY

In two Jordanian cities (Amman and Al-Balqa`), 500 questionnaires were distributed to gather the required data from a convenience sample of Jordanian banking customers who have adopted and used IB services. So as to reach a better representation of the targeted population, the diversity in the banking customers’ profiles and characteristics (for example, education level, income level, gender, occupation, area of residence, social status) was considered by the researcher during the distribution of the questionnaires. A number of approaches were adopted to distribute the questionnaires. In the first instance, the questionnaires were handed out to banking customers through the banking

staff. The researcher also requested permission from the banking staff to contact the clients directly at the bank branches and asked them to complete a questionnaire. Furthermore, the researcher was given the opportunity to contact the targeted respondents in their own workplaces (for example, university staff and students, employees in the public and private sectors, staff and customers in commercial complexes and shopping centres).

The main constructs of the conceptual model were measured by 25 scale items adapted from information system literature (see Table 1). The main items of BI, HM and HT have been taken from Venkatesh *et al* (2012), whereas the scale for TR was drawn from Gefen *et al* (2003) and SE was measured by scales from Compeau and Higgins (1995). Such items of trust have also

been adopted by different studies in the relevant area (that is Kim and Prabhakar, 2004; Casaló *et al*, 2007; Al-Gahtani, 2011; Kim *et al*, 2011; Zhou, 2012). 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). A set of four common financial services were adopted to measure the adoption behaviour of IB. These services have been widely adopted by relevant studies that have examined adoption of IB (that is, Curran and Meuter, 2005, 2007; Martins *et al*, 2014). The 7-point time scale was also implemented to measure the adoption of these services with 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). The questionnaire was

Table 1: Measurement items

<i>Constructs</i>	<i>Items</i>	<i>Sources</i>	
Hedonic motivation	HM1	Using IB is fun	Venkatesh <i>et al</i> (2012)
	HM2	Using IB is enjoyable	Venkatesh <i>et al</i> (2012)
	HM3	Using IB is entertaining	Venkatesh <i>et al</i> (2012)
Habit	HT1	The use of IB has become a habit for me	Venkatesh <i>et al</i> (2012)
	HT2	I am addicted to using IB	Venkatesh <i>et al</i> (2012)
	HT3	I must use IB	Venkatesh <i>et al</i> (2012)
	HT4	Using IB has become natural to me	Venkatesh <i>et al</i> (2012)
Behavioural intention	BI1	I intend to use IB in the future	Venkatesh <i>et al</i> (2012)
	BI2	I will always try to use IB in my daily life	Venkatesh <i>et al</i> (2012)
	BI3	I plan to use IB in future	Venkatesh <i>et al</i> (2012)
	BI4	I predict I would use IB in the future	Venkatesh <i>et al</i> (2003)
Trust	TR1	I believe that IB is trustworthy	Gefen <i>et al</i> (2003)
	TR2	I trust IB	Gefen <i>et al</i> (2003)
	TR3	I do not doubt the honesty of IB	Gefen <i>et al</i> (2003)
	TR4	I feel assured that legal and technological structures adequately protect me from problems on IB	Gefen <i>et al</i> (2003)
	TR5	Even if not monitored, I would trust IB to do the job right	Gefen <i>et al</i> (2003)
	TR6	IB has the ability to fulfil its task	Gefen <i>et al</i> (2003)
Self-efficacy	SE1	I could complete a transaction using IB if there was no one around to tell me what to do	Compeau and Higgins (1995)
	SE2	I could complete a transaction using IB if I could call someone for help if I got stuck	Compeau and Higgins (1995)
	SE3	I could complete a transaction using IB if I had a lot of time to complete the job I started.	Compeau and Higgins (1995)
	SE4	I could complete a transaction using IB if I had just the built-in help facility for assistance	Compeau and Higgins (1995)
	SE5	I could complete a transaction using IB if I had never used a system like it before	Compeau and Higgins (1995)
Adoption	Service 1	Balance enquiries and downloaded bank statements	Curran and Meuter (2005, 2007)
	Service 2	Fund transfers	Curran and Meuter (2005, 2007)
	Service 3	Requesting cheque book or bank certificates	Curran and Meuter (2005, 2007)
	Service 4	Paying bills	Curran and Meuter (2005, 2007)

translated into Arabic using the back translation method as recommended by Brislin (1976) as the native language of banking customers in Jordan is Arabic.

RESULTS

Respondent profile and characteristics

Out of 500 questionnaires issued, 348 (69.6 per cent) usable responses have been received and subjected to further statistical analyses. More than half of the respondents (57.2 per cent) were male; 42.8 per cent were females. The descriptive statistics also revealed that the majority of respondents were in the age group of 25–40 (69.6 per cent) and most of them (84.5 per cent) were found to have a Bachelor’s degree or above. The largest segment of the usable sample (49.6 per cent) has an income level of between 400 and 800 Jordanian Dinar. The overwhelming majority of respondents (above 89.8 per cent) were observed to be enjoying an adequate level of Internet and computer experience (more than 3 years). Even though the characteristics of the current sample are similar to the characteristics of Jordan's population, there are some differences especially in terms of age because of the fact that the target age of the respondents was above 18 years old (Department of Statistics, 2015). Further, the respondents’ profile in the current study was also close to the respondents’ profile of other studies targeting Jordanian banking customers (see AbuShanab *et al*, 2010; Al-Smadi, 2012; Al-Qeisi and Abdallah, 2013).

Structural equation modelling (SEM) analysis

A two-stage approach of the SEM (measurement model and structural model) was selected to analyse the empirical data (Byrne, 2010). By running AMOS 21, the model fitness and construct reliability and validity were assessed in stage one (the measurement model) by means of the confirmatory factor analyses

Table 2: Results of measurement model

<i>Fit indices</i>	<i>Cut-off point</i>	<i>Yielded fit indices</i>
CMIN/DF	≤3.000	1.996
GFI	≥0.90	0.904
AGFI	≥0.80	0.865
NFI	≥0.90	0.937
CFI	≥0.90	0.960
RMSEA	≤0.08	0.054

Table 3: Construct reliability

<i>Latent constructs</i>	<i>CR</i>	<i>AVE</i>	<i>Mean</i>	<i>Standard deviation</i>
Hedonic Motivation	0.91	0.77	5.46	1.30
Habit	0.81	0.53	4.38	1.39
Trust	0.91	0.67	5.37	1.26
Self-efficacy	0.90	0.66	5.52	1.22
Behavioural intention	0.91	0.75	5.60	1.27
Adoption	0.85	0.59	3.23	1.66

(CFA) (Byrne, 2010). This was followed by a structural model assessment that related to the validation of the conceptual model proposed and the testing of the research hypotheses (Hair *et al*, 2006; Byrne, 2010). As shown in Table 2, even though the chi-square was significant ($\chi^2 = 514.974$, $DF = 258$, $P = 0.000$), the other fit indices were found within their recommended level, for example CMIN/DF was 1.996, GFI = 0.904, AGFI = 0.865, NFI = 0.937, CFI = 0.960 and RMSEA = 0.054. This, in turn, indicated that the measurement model adequately fitted the observed data.

An examination of construct reliability was also conducted via testing both composite reliability (CR) and average variance extracted (AVE) for each construct (Anderson and Gerbing, 1988). As shown in Table 3, all latent constructs reflect an adequate CR of at least 0.81, which is higher than the cut-off point of 0.70 (Hair *et al*, 2010). Likewise, the AVE for all latent constructs was estimated and found to be above the threshold value of 0.50 (Hair *et al*, 2010).

Also, both convergent and discriminant validity were examined to establish construct validity. All unremoved items were found to have a factor loading above the cut-off value of 0.50 and were statistically significant with the

P value less than 0.001 (Hair *et al.*, 2010). Also important, as shown in Table 4, the squared root of AVE exhibited for each latent construct was higher than the inter-correlation estimates with other corresponding constructs (Fornell and Larcker, 1981).

In the second stage of SEM, an inspection of the structural model was conducted with eight causal paths between exogenous and endogenous factors. All the fit indices of the structural model were found to be within their threshold values, as such: CMIN/DF was 1.976, GFI = 0.901, AGFI = 0.866, NFI = 0.923, CFI = 0.960 and RMSEA = 0.053

(Hair *et al.*, 2010). Moreover, the statistical results largely supported the predictive validity of the conceptual model via explaining 73, 60 and 32 per cent of variance in BI, TR and adoption respectively (see Figure 2). As for the path coefficients analyses, the coefficient values of the paths ending at BI including HM ($\gamma = 0.13$, $P < 0.016$); HT ($\gamma = 0.24$, $P < 0.001$); TR ($\gamma = 0.32$, $P < 0.001$); SE ($\gamma = 0.33$, $P < 0.001$) were all found to be statistically significant (see Figure 2). The path coefficients starting with BI ($\gamma = 0.40$, $P < 0.001$) and ending at adoption were found to be statistically significant as well. Accordingly, all research Hypotheses 1–8 proposed in the conceptual model are supported.

Table 4: Discriminant validity

Latent constructs	HM	HT	TR	SE	BI	Adoption
Hedonic Motivation	0.87					
Habit	0.50	0.72				
Trust	0.67	0.46	0.81			
Self-efficacy	0.64	0.51	0.65	0.81		
Behavioural intention	0.67	0.62	0.71	0.71	0.86	
Adoption	0.39	0.47	0.60	0.42	0.53	0.76

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

DISCUSSION

The conceptual model was successfully able to predict a large portion of variance in BI (73 per cent), which is very close to the value (74 per cent) accounted for in the new model of Venkatesh *et al.* (2012). Such value extracted in this study was also higher than values achieved by other IB banking studies (that is,

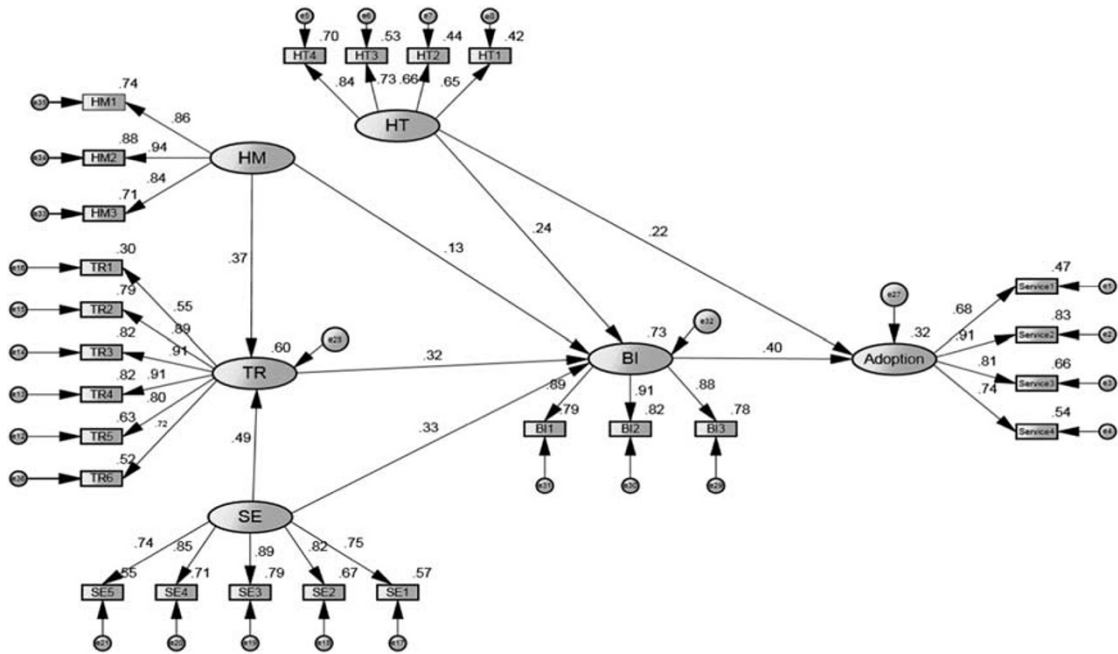


Figure 2: Results of structural model.

19 per cent by Curran and Meuter (2005) and 20 per cent by Akhlaq and Ahmed (2013)). Moreover, all research hypotheses are empirically supported. This, in turn, provides further evidence supporting the solidity of the current study model to predict Jordanian customers' intention and adoption of IB.

As seen in Figure 2, SE seems to be the most powerful factor affecting both BI and TR. This means that Jordanian customers, who believe in their ability to effectively conduct IB services, are more likely to trust using such technology as well as being more motivated to adopt it in the future. Such results extracted regarding the important role of SE have been largely supported by prior literature of IB (that is, Al-Somali *et al*, 2009; Zhou, 2012).

TR is observed to be the second strongest factor predicting the BI. Jordanian customers, therefore, are more likely to be motivated to adopt IB if they perceive IB as a trustworthy channel to attain banking services. Customers, by and large, were noticed in paying a considerable attention for the aspects related to TR so as to support their decision to use such sensitive services (that is, online banking transactions) (Gefen *et al*, 2003; Curran and Meuter, 2005). These results are in line with what has been confirmed over prior studies in the same area of interest (that is, Curran and Meuter, 2005; Riffai *et al*, 2012; Akhlaq and Ahmed, 2013).

HT was approved in the current study as a significant factor predicting both BI and adoption. As the vast majority of respondents in the current study are actual adopters, their habitual behaviour in using IB played a role in facilitating their actual behaviour towards IB as well as motivating them to use such a system in the future. This supports the thought of Venkatesh *et al* (2012) who argued and confirmed HT as a key predictor of customer intention and behaviour.

As anticipated, HM was empirically demonstrated by the current study to have significant influence on BI. This relationship reflected that the likelihood of adopting IB will increase among customers who see that using

IB is entertaining, pleasurable and enjoyable. In Jordan, using IB could represent an added value in the terms of novelty and modernism for the people there which, in turn, contributes to the intrinsic motivation of using such channels. Existing literature related to information systems (for example, Venkatesh *et al*, 2012) and IB (that is, Curran and Meuter, 2007; Riffai *et al*, 2012) has largely acknowledged the vital role of intrinsic motivation in predicting BI. Further, customer trust in IB was found to be strongly predicted by the role of HM. The findings in this regard provide further evidence supporting what has been reached by Hwang and Kim (2007) and Akhlaq and Ahmed (2013) regarding the key role of customers' emotion and feelings in shaping their trust beliefs towards the innovative systems.

CONCLUSION

The current study was conducted with the intention of providing further understanding of the factors that predict Jordanian customers' intention and adoption of IB. A conceptual model comprising four factors (HT, HM, TR and SE) was proposed. Empirical data was obtained from 348 Jordanian banking customers who have already adopted IB services. This data was analysed using SEM. As discussed above, the results largely supported the model fitness as well as its predictive power (that is, 73 per cent of variance was accounted in BI). Further, all the causal paths proposed in the conceptual model were approved to have significant values.

The study contributes to existing knowledge regarding IB and technology acceptance as it has provided further understanding of the factors that should be taken into account by practitioners and researchers when addressing customers' adoption of IB. This study extends beyond what has been proposed and examined in prior studies conducted in Jordan (that is, SE and TR) by considering new constructs (HM, HT); and proposing new causal paths between the main antecedences of BI.

Implications for practice

The findings of this study provide Jordanian banks with guidelines to help them promote IB acceptance among their customers. First, given the importance of self-efficacy as identified in this study, it is recommended that Jordanian banks focus their attention in this area. In order to address this factor, banks need to develop their customers' capabilities with respect to technology use and IB specifically. For example, in-branch training, or facilitation, could be provided to customers to guide them through the stages from log-in to simple IB transactions. Any difficulties or questions that arise can be handled quickly, there and then, and thereby reassuring the customer of the ease of use, belief in their own ability to use IB and building IB skills. Once customer confidence in IB is established this will in turn build trust and intention to use IB (Compeau and Higgins, 1995).

Second, consumer trust was found to be important in customer use of IB. Trust can be built through experience and use of IB. For example, banks could improve the quality and performance of IB and develop policies pertaining to the structural assurance; these could enhance customers' trust in such technology (Yousafzai *et al*, 2010). However, trust can also be developed from secondary sources, information provided by the bank or others. Jordanian banks have most control over the communications they have directly with their customers. Trust could therefore be built by providing customers with evidence in the form of customer testimonials on the ease of use. Such information can be displayed in branch or provided in written communications such as bank statements. The key is for Jordanian banks to have a repeated and consistent positive message about IB in order to build trust.

Third, banks could encourage hedonic motivation by introducing an element of playfulness into IB usage. Competition, or other rewards, could be used to incentivise customers registering and repeatedly using IB over a short period of time. This would encourage habit forming behaviour. In

addition, banks could review the format and presentation of their IB screens and introduce a creative IB interface. This would contribute to the hedonic values related to these systems and build a positive perception about IB.

Likewise, the results provided clues for Jordanian banks to pay a further interest to the aspects contributing to customer trust in IB.

Limitations and future research directions

The data of the current study was obtained using a convenience sample that, in turn, could negatively reflect on the generalisability of results. Also, this study only examined a single banking channel (IB). This could mitigate the applicability of the current study's results to other types of online banking channels (for example, Mobile banking, Telebanking). Further, this study concentrated on actual and potential adopters of IB although it ignored other types of customers who rejected using such technology. However, studying these types of customers could help to have a further understanding about the main obstacles hindering IB acceptance. In addition, the demographic differences (for example, age, gender, technology experience) should receive more interest by future researches because of the fact that these factors could reflect different levels of the impacting role of independent factors (for example, HM and HT) on the BI and use behaviour as suggested by Venkatesh *et al* (2012).

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