Consumer Adoption of Internet Banking in Jordan: Examining the Role of Hedonic Motivation, Habit, Self-Efficacy and Trust

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Abstract

This study aims to examine the main factors predicting the behavioural intention and adoption of Internet banking (IB) in Jordan. Four factors - hedonic motivation, habit, self-efficacy and trust - are proposed in the same conceptual model. Therefore, a survey questionnaire was conducted to collect the required data from a convenience sample of Jordanian banking customers. Statistical analyses were employed using structural equation modelling (SEM) which strongly supported the conceptual model by explaining 73% of variance in behavioural intention. Further, hedonic motivation, habit, self-efficacy and trust are all confirmed to have significant influences on behavioural intention. Trust was found to be profoundly predicted by both HM and SE. This study also offers Jordanian banks some guidelines for promoting IB services to enhance their acceptance by Jordanian customers.

Keywords: Internet banking, adoption, Jordan.

1. Introduction

With the improvement of the Internet and Wi-Fi technologies, 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 (i.e. balance enquiries, fund transfers, paying bills) with a higher quality of service at a time and place

appropriate to customers (Liao et al., 1999). In Jordan, approximately 55% of the Jordanian population are Internet subscribers (The Jordan Times, 2013). Therefore, 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. The rapid spread of such services could be attributed to their feasibility rather than to traditional banking channels. In fact, IB is considered as the least costly banking channel. The cost of any transaction conducted via IB is about US $0.01 compared with those for traditional branches (US $1.07) and Telebanking (US $0.54) (Kolodinsky et al., 2004).

However, implementing IB will not be feasible unless customers widely accept it as a full alternative to the traditional encounter (Curran and Meuter, 2007). As a matter of fact, 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% of Internet users). Jordanian banks have also been suffering from the lower adoption rate of such technology as reported by both AbuShanab et al. (2010) and Alalwan et al. (2014).

Given the complex and sensitive nature of electronic financial services, and requiring customers to change their habits and behaviour, persuading customers to accept this technology is not an easy process (Curran and Meuter, 2005). Such issues have also been the most important challenge regarding the successful implementation of IB as claimed by Curran and Meuter (2007). Therefore, there is always a necessity to identify and examine the most important factors hindering or facilitating the customers' intention and adoption of IB. However, a number of researchers have empirically examined the Jordanian customers' intention and adoption of IB (i.e. AbuShanab et al., 2010; Al-Qeisi and Abdallah, 2013). Accordingly, the aim of the current study is to identify and examine the fundamental factors predicting the behavioural intention and adoption of IB in Jordan.

2. 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 (Martins et al., 2014; Riffai et al., 2012). According to Walker and Johnson (2006), a customer's predisposition to adopt IB was also significantly predicted by the customer's beliefs regarding their ability and capacity to apply such technology effectively. Likewise, Celik (2008) provided empirical evidence proving the role of playfulness in predicting both perceived usefulness and perceived ease of use. 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.

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

In Jordan, AbuShanab et al. (2010) empirically examined the customers' 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 the customers' intention to adopt IB. Al-Smadi (2012) also supported the role of cultural aspects and perceived risk in shaping the Jordanian customers' perception and intention 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 (e.g. 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 parsimony conceptual model which is able to cover the most important aspects that could shape the Jordanian customers' intention and adoption of IB.

3. 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. Accurately, both HM and HT were proposed and validated by Venkatesh et al. (2012) to address the technology adoption from the customers' perspective. Likewise, TR and SE have been widely noticed over the prior literature of IB as crucial factors predicting customers' intention and adoption of such an emerging system (Akhlaq and Ahmed, 2013; Eriksson et al., 2005; Wang et al., 2003). The hypotheses development and justification of the constructs are discussed further in the following subsections.

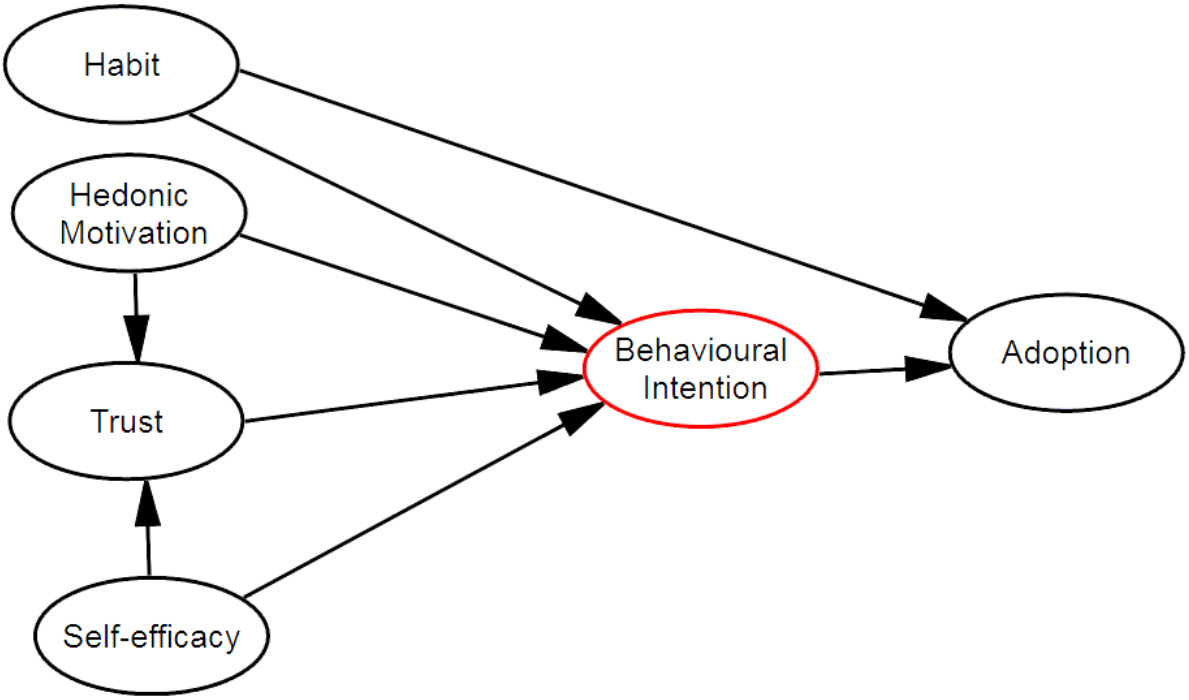

Figure 1: Conceptual Model of the Adoption of Internet Banking by Jordanian Customers (Source: Constructs adapted from Compeau and Higgins, 1995; Gefen et al., 2003; Venkatesh et al., 2012)

3.1 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. 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 (e.g. perceived enjoyment, playfulness, entertainment and fun) have been widely recognised as some of the

most influential factors predicting the customers' intention to adopt IB (Celik, 2008; Curran and Meuter, 2007; 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 are having more fun and entertainment, and they 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:

H1: Hedonic motivation will positively influence Jordanian customers' intention to adopt Internet Banking.

H2: Hedonic motivation will positively influence Jordanian customers' trust in using Internet Banking.

3.2 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 UTAUT2, both BI and individual behaviour could be shaped by the role of HT (Venkatesh et al., 2012). It 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) which 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 (i.e. Eriksson et al., 2008; Kolodinsky et al., 2004). Accordingly, this study proposes the following hypotheses:

H3: Habit will positively influence Jordanian customers' intention to adopt Internet Banking.

H4: Habit will positively influence Jordanian customers' adoption of Internet Banking.

3.3 Trust (TR)

Gefen et al. (2003, p.161) conceptualised trust as "individual willingness to depend based on the beliefs in ability, benevolence, and integrity." TR has been widely regarded as a crucial determinant of customers' intentions and the adoption of IB (i.e. Akhlaq and Ahmed, 2013;

Flavián et al., 2006). 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). In other words, 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 proved the causal relationship between TR and BI (i.e. Eriksson et al., 2005; Riffai et al., 2012). Hence, this study postulates the following hypothesis:

H5: Trust will positively influence Jordanian customers' intention to adopt Internet Banking.

3.4 Self-efficacy (SE)

According to Bandura (1986, p. 391), SE is defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances." Put differently, customers who 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). Therefore, several studies have validated the impacting role of SE on the customers' intention to adopt IB (i.e. AbuShanab et al., 2010; Walker and Johnson, 2006). SE could also contribute to BI indirectly via the shaping of the customers' beliefs and perceptions (i.e. 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 the customers' initial trust in Mobile banking. Similarly, Wang et al. (2003) approved a positive causal relationship between SE and perceived credibility in using IB. Thus, this study proposes the subsequent hypothesis:

H6: Self-efficacy will positively influence Jordanian customers' intention to adopt Internet Banking.

H7: Self-efficacy will positively influence Jordanian customers' trust in using Internet Banking.

3.5 Behavioural Intention (BI)

BI has been examined constantly and confirmed as the most powerful determinant of individual behaviour over the technology acceptance stream (Dwivedi and Irani, 2009). Furthermore, prior literature in the IB has strongly supported BI as a decisive driver of the actual usage behaviour of IB (e.g. Jaruwachirathanakul and Fink, 2005; Martins et al., 2014; Shih and Fang, 2004). Accordingly, this study formulates the following hypothesis:

H8: Customer intention will positively influence the adoption of Internet Banking by Jordanian banking customers.

4. Methodology

In two Jordanian cities (Amman and Al-Balqa`), 500 questionnaires were allocated to gather the required data from a convenience sample of Jordanian banking customers. The main constructs of the conceptual model were measured by 25 scale items adapted from information system literature. Accurately, the main items of BI, HM, and HT have been taken from Venkatesh et al. (2012). While the scale for TR was drawn from Gefen et al. (2003), and SE was measured by scales from Compeau and Higgins (1995). 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 (i.e. Curran and Meuter, 2005, 2007; Martins et al., 2014). The seven-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 translated into Arabic using the back translation method as recommended by Brislin (1976) since the native language of banking customer in Jordan is Arabic.

5. Results

5.1. Respondents' Profile and Characteristics

Out of 500 questionnaires issued, 348 (69.6%) usable responses have been received and subjected for further statistical analyses. More than half of them (57.2%) were male, whereas 42.8% were females. The descriptive statistics also revealed that the largest part of the respondents were in the age group of 25-40 (69.6%) and most of them (84.5%) were found to

have a Bachelor's degree or above. The largest segment of the usable sample (49.6%) has an income level of between 400 and 800 Jordanian Dinar. The overwhelming majority of respondents (above 89.8%) were observed to be enjoying an adequate level of Internet and computer experience (more than three years).

5.2 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 constructs' reliability and validity were assessed in stage one (the measurement model) by means of the confirmatory factor analyses (CFA) (Byrne, 2010). This was followed by a structural model assessment which related to the validation of the conceptual model proposed and the testing of the research hypotheses (Byrne, 2010; Hair et al., 2006). As shown in Table 1, even though the chi-square was significant (χ^2= 514.974, DF = 258, P = 0.000), the other fit indices were found within their recommended level as such: 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.

Table 1: Results of Measurement Model

Fit Indices	Cut-off point	Yielded fit indices
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

An examination of the 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 2, 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 (see Table 2) (Hair et al., 2010).

Table 2: Constructs' Reliability

Latent	CR	AVE	Mean	Standard

Constructs				Deviation
HM	0.91	0.77	5.46	1.30
HT	0.81	0.53	4.38	1.39
TR	0.91	0.67	5.37	1.26
SE	0.90	0.66	5.52	1.22
BI	0.91	0.75	5.60	1.27
Adoption	0.85	0.59	3.23	1.66

Also, both convergent and discriminant validity were subjected by the CFA to establish the constructs' 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 3, 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).

Table 3: Discriminant Validity

Latent Constructs	HM	HT	TR	SE	BI	Adoption
HM	**0.87**					
HT	0.50	**0.72**				
TR	0.67	0.46	**0.81**			
SE	0.64	0.51	0.65	**0.81**		
BI	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 values are squared roots of AVE; off-diagonal values are the estimates of inter-correlation between the latent constructs.

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% of variance in BI, TR, and adoption respectively (see Figure 2). As for the path coefficients analyses, the coefficient values of the paths ending to BI including HM (γ=0.13, p<0.016); HT (γ=0.24, p<0.001); TR (γ=0.32, p<0.001; SE (γ=0.33, p<0.001) were all found to be statistically significant (see Figure 2). The path

coefficients starting with BI (γ=0.40, p<0.001) and HT (γ=0.22, p<0.003) and ending in adoption were found statistically significant as well. Accordingly, all research hypotheses: H1, H2, H3, H4, H5, H6, H7 and H8 proposed in the conceptual model are supported.

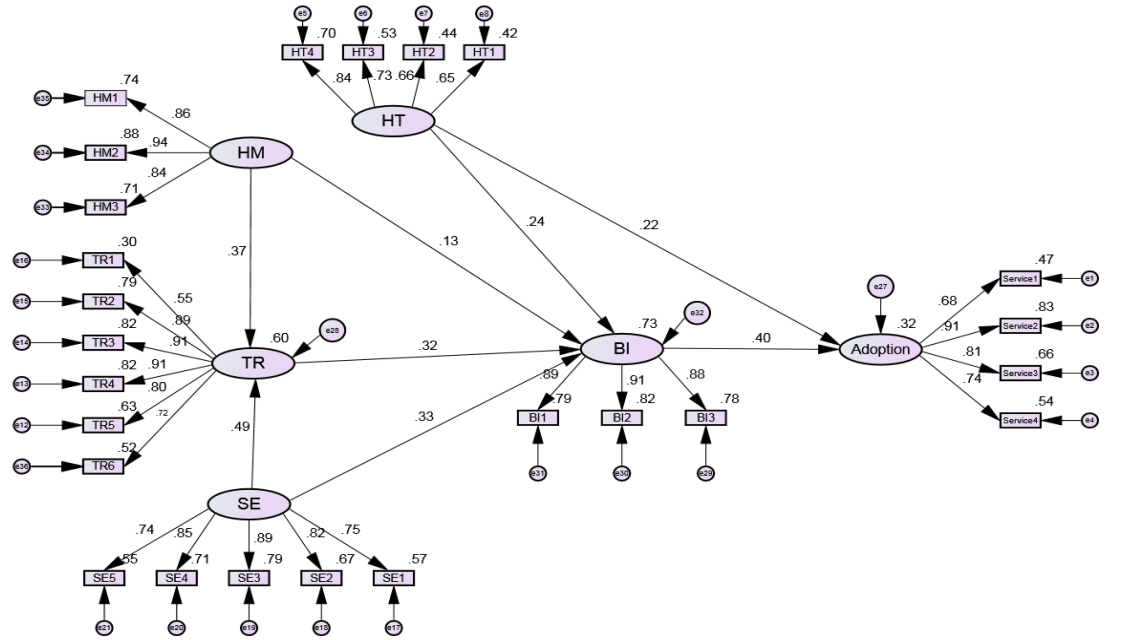

Figure 2: Results of Structural Model **(Source: Constructs adapted from Compeau and Higgins, 1995; Gefen et al., 2003; Venkatesh et al., 2012)**

Having studied the most important factors predicting Jordanian customers' intention and adoption of IB, the current study represents a substantial contribution to existing knowledge regarding IB and technology acceptance. Indeed, this study has provided a further understanding about the main aspects that should be taken into account by practitioners and researchers in addressing customers' adoption of such emerging systems. This study also goes beyond what has been proposed and examined in prior studies conducted in Jordan by considering new constructs (HM, HT) alongside SE and TR; and proposing new causal paths between the main antecedences of BI as well. Furthermore, the conceptual model was successfully able to predict a large portion of variance in BI (73%), which is very close to the value (74%) accounted for in the new model of Venkatesh et al. (2012). Such value extracted in this study was also realised to be higher than these accounted by other IB banking studies (i.e. 19% by Curran and Meuter (2005) and 20% 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 the 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 crucial role of SE have been largely supported by prior literature of IB (i.e. Al-Somali et al., 2009; Zhou, 2012). Accordingly, banks should concentrate more in developing customers' skills, experience and knowledge to use IB effectively. In this respect, conducting an effective training programme could enhance the customers' self-efficacy and, accordingly, their trust and intention to use IB (Compeau and Higgins, 1995).

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 the 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 (i.e. online banking transactions) (Curran and Meuter, 2005; Gefen et al., 2003). These results are in line with what has been confirmed over prior studies in the same area of interest (i.e. Akhlaq and Ahmed, 2013; Curran and Meuter, 2005; Riffai et al., 2012). This, in turn, provides clues for Jordanian banks to pay a further interest to the aspects contributing to customer trust in IB. Such as, improving the quality and performance of IB as well as developing policies pertaining to structural assurance could enhance customer trust in such technology (Yousafzai et al., 2010).

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. Banks could support the positive role of HT using different communication channels to teach customers how IB would enable them to attain a wider range of IB services in different times and places (Venkatesh et al., 2012). Further, banks should help customers to formulate a habitual behaviour towards IB by educating, training and letting them apply such systems through experimental accounts (Dwivedi and Irani, 2009).

As anticipated, HM was empirically proved 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 more 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 the information system (e.g. Venkatesh et al., 2012) and IB (i.e. Curran and Meuter, 2007; Riffai et al., 2012) has largely acknowledged the crucial role of intrinsic motivation in predicting the BI. Further, customers trust in IB was found to be strongly predicted by the role of HM. The findings in this regard provide further evidences supporting what has been reached by Hwang and Kim (2007) and Akhlaq and Ahmed (2013) regarding the crucial role of customers' emotion and feelings in shaping their trust beliefs towards the innovative systems. Therefore, Jordanian banks should build a positive perception about the novelty and innovativeness that are involved in using IB and, thereby, contributing to the role of HM. In this respect, attractive videos posted on YouTube, Facebook, Twitter could explain how these channels are contemporary and breaking new ground. In addition, banks should be customising a smart and creative interface design of IB. This could contribute to hedonic values related to these systems.

6.1 Limitations and Future Research Directions

The data of the current study was obtained using a convenience sample which, in turn, could negatively reflect on the results generalisability. 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 (e.g. Mobile banking, Telebanking). Further, this study concentrated on actual and potential adopters of IB while 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. Additionally, the demographic differences (e.g. age, gender, technology experience) should receive more interest by future researches due to the fact that these factors could reflect different levels of the impacting role of independent factors (e.g. HM and HT) on the BI and use behaviour as suggested by Venkatesh et al. (2012).

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