

## Understanding Customer's Initial Trust in Internet Banking Services: A Field Study in Jordan

**Ali Aljaafreh**

*University of Technology Sydney  
Sydney, Australia*

*Ali.Al-jaafreh@uts.edu.au*

**Ahmed Al-Ani**

*University of Technology Sydney  
Sydney, Australia*

*Ahmed.Al-Ani@uts.edu.au*

**Rasha Aljaafreh**

*Ministry of Education, Jordan*

*Raljaafreh@yahoo.com*

**Daniel Chandran**

*University of Technology Sydney  
Sydney, Australia*

*Daniel.Chandran@uts.edu.au*

### Abstract

The aim of this study is to develop a unified model of initial trust for the adoption of internet banking services (IBS) in developing countries. In particular, three groups of factors have been investigated: trust literature, diffusion of innovation theory, and national culture, in order to reveal their effect on forming a customer's initial trust in IBS. We collected data using a survey and then analysed it using structural equation modelling. According to the obtained results, initial trust in internet banking services was significantly affected by: (i) factors obtained from the trust literature, which are disposition to trust, organisational structural assurance, and reputation. (ii) Relative advantages, which was adopted from the diffusion of innovation theory. (iii) Uncertainty avoidance, which is a dimension of national culture. Also, analysis of results showed a high impact of initial trust in IBS on the intention to use it. However, unlike developed countries, we found that some factors not to have noticeable influence on initial trust in IBS, such as: technical structural assurance and individualism versus collectivism.

**Keywords:** Internet banking, Initial trust, National culture, Developing countries, Intention to use.

### 1. Introduction

The internet has rapidly evolved in recent years and become a necessity for individuals and business organisations. Organisations, such as banks, all over the world have perceived the internet's importance early and started using it to deliver their services. In 1996, Atlanta bank in the USA was the first bank that utilized the internet to deliver its services [10]. However, the adoption of internet banking services (IBS) is still facing many challenges, especially in developing countries, such as the Middle East and Africa. Statista.com [41] published a report showed that North America has the highest Internet Banking adoption ratio with 45%, followed by Europe with 37.8%, then 25.1% and 22% for Latin America and Asia Pacific respectively. The lowest ratio was for the Middle East and Africa with only 8.8%.

In fact, understanding the reasons behind the low adoption rates of new technologies has been identified as one of the most challenging impediments in the field [4]. In the financial environment, researchers have addressed trust as the milestone of the customers' willingness

to perform their transactions [36]. Since the customers' willingness depends on their trust in the services' providers, then identifying factors that affect customers trust is essential to enhance their intention to adopt and use the services [17]. Although there are many empirical studies that have investigated online trust, they main focused on developed countries [2]. Therefore, this study attempts to fill this gap of knowledge in the literature by conducting an empirical field research to investigate initial trust in IBS in developing countries, with particular emphasis on Jordan. Thus, a unified model is proposed to understand the initial formation of customers' initial trust in IBS and intention to use it.

## **2. Theoretical background**

### **2.1. Initial trust**

McKnight et.al.,[36] defined initial trust as the status quo in which customer trusted an unfamiliar party. Kim &Tadisina [22] pointed that initial trust represent the first stage of trust which is not based on any kind of previous experiences or interaction between the trust parties and described as a temporary stage of trust. Kim &Tadisina [22] defined initial trust as “a construct that measures trust in the initial stage of a relationship, in which a trustor's attitude may not have built up yet”. Therefore, introducing a new innovation service, or adopting a service in a new context will need to overcome the challenges of no previous experiences or first-hand knowledge from users [26, 30, 34, 36]. It is therefore expected that the users' adoption for a new innovation service will be affected by other factors such as certain perspectives and cognitive processes.

### **2.2. Initial trust antecedents**

Trust, in general, is built on five antecedents (bases): Personality, institution, cognition, economic (calculative), and experience. However, initial trust can be built only based on personality, institution, and cognition bases because all of these antecedents do not require prior experience or period of time for building the trust [13, 23, 26, 36].

#### **Personality**

This antecedent is related to propensity to trust, disposition to trust, or tendency to trust a trustee. It is defined as person's willingness or tendency to depend on others in different situations [33, 34]. Lee &Turban [27] stated that personality base trust is deeply related to the personality of the person as well as to his/her psychological development during the early period of his/her life. In addition, this antecedent is normally stable and is shaped during the lifelong experience of the trustor [40], and before any contact with the trustee. Thus, it is expected that the existing personality of a trustor may immediately built his/her initial trust in a trustee.

#### **Cognition**

It assumes that a trustor may trust a trustee based on his first impression about the trustee or the trustee's stereotype. McKnight et al. [34] explained the assumption that trust is formed based on rapid and cognitive cues and with the absence of first-hand experience. Obviously, cognition based trust could be one of the important bases to build the initial trust.

#### **Institution**

It assumes that a trustor can build his/her trust on a trustee if the trustor feels that the trustee's dealings fit a common standard [9] and if he/she believes that impersonal structure existed [28]. Therefore, if the trustee shows the trustor significant cues that the situation is normal

and the success is assured, then the trustor will trust this trustee. The required period of time to get trust based on this antecedent is not long, and thus; it can be considered as a source of initial trust.

### **2.3. Initial trust and the diffusion of innovation theory**

Rogers [39] defined innovation as idea, practice, or object that is perceived as new by an individual or other unit of adoption. [39] addressed five characteristics for new IT innovations: relative advantages, complexity, compatibility, triability, and observability. The literature also indicated that relative advantages, complexity, and compatibility are consistently significant in the adoption of a new innovation [7]. Many researchers applied the DOI theory to investigate the adoption of new IT innovations [37], eGovernment applications [7], and IBS adoption [3]. In the context of online trust, the DOI has been applied by utilizing some of its characteristics as trust antecedents. Kim et al. [23] and Susanto et al. [42] investigated relative benefits (advantages), while Lin et al. [31] examined the compatibility of new services. Their results confirm the significance of DOI based antecedents on initial trust and intention to use new innovations.

### **2.4. National Culture**

Although there is no accepted definition for national culture, the most popular definition introduced by Hofstede [20] is the collective programming of the mind which distinguishes the members of one group or category of people from another. Moreover, in the field of management information systems, Hofstede's cultural theory is considered as the most popular and the most used cultural theory [29]. This theory includes five dimensions that represent the culture: (i) uncertainty avoidance: the extent to which the members of group or society feel threatened by unknown situations, (ii) power distance: the extent to which the less powerful members of group or society accept and expect that power is unequally distributed, (iii) individualism vs. collectivism: the extent to which individuals are integrated into groups, (iv) masculinity vs. femininity: the extent to which gender roles are assigned in a culture, (v) long term vs. short term orientation: a society's preference to be more forward looking or future oriented.

Jordan, which belongs to the Arab world, is arguably a country that has one of the most complicated social and cultural systems [1]. Due to the differences between the culture of Arab and Western countries [19], many researchers from Arab countries investigated the effect of the national culture and claimed that it has crucial role in affecting individuals' behaviour toward adopting new IT innovations [2, 3].

## **3. Research model**

The research model we proposed for "initial trust in IBS that is particularly designed for developing countries" integrates the initial trust antecedents, DOI theory, and Hofstede's national cultural theory. The variables included in the model are conceptualised based on intensive review of the literature about initial trust and the adoption of new IT innovations in developing countries. Figure 1 shows our proposed research model and the relationships between its constructs.

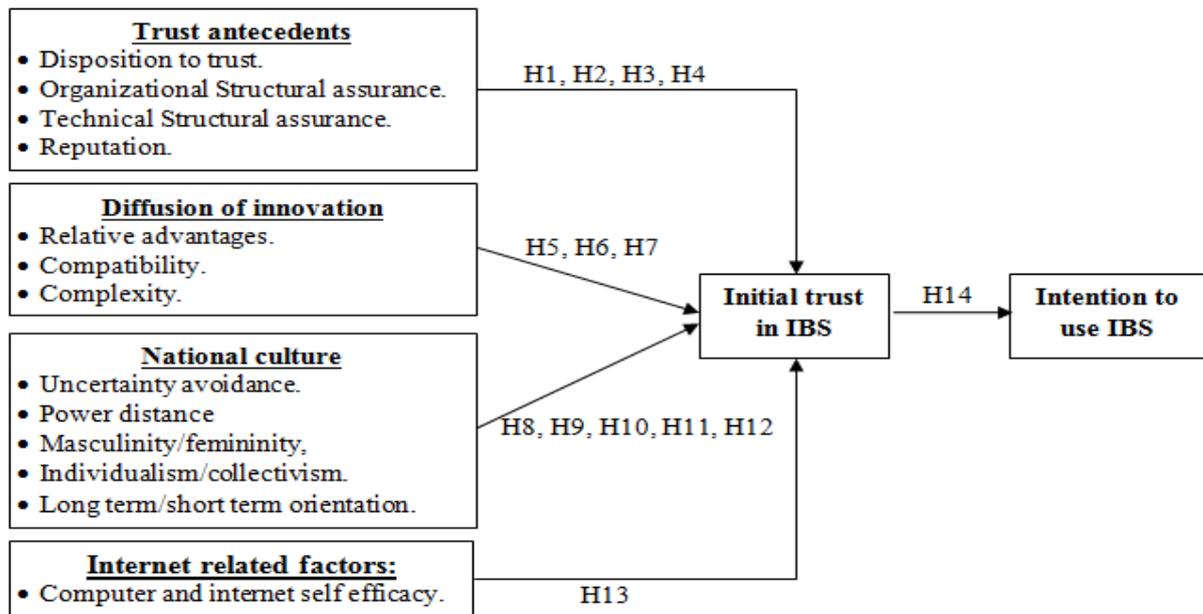


Fig.1. Research model of initial trust and intention to use IBS in developing countries

## 4. Hypotheses

### 4.1. Trust antecedents

#### Disposition to trust

Disposition to trust is an attribute which is deeply related to the individual's cultural background and formed during the early stage of his/her life affected by social and psychological factors [27]. The significant of this antecedent is clearly appeared in previous studies and was found to have effect on individuals' initial trust [13, 23, 25, 30, 31, 36]. Thus, the following hypothesis is to test the relationship between DT and initial trust in IBS.

*H1: A customer's disposition to trust (DT) is positively influences his/her initial trust in internet banking services.*

#### Structural assurance

In this study, we choose to examine the effect of structural assurance from two perspectives: organisational and technical. Organisational structural assurance is defined as the existence of guarantees, rules, polices, regulations, and other safeguards within the work environment [30, 34]. The presence of safe and secure safeguards will generate a positive feeling within the individuals (customers) toward the organisation (bank) and will not behave opportunistically [11].

*H2: A customer's perception of organisational structural assurance (OSA) is positively influences his/her initial trust in internet banking services.*

The other part of structural assurance is the technical structural assurance, which reflects the belief that the internet has protective legal, technical structures, encryption procedures, and/or privacy assurance [36]. The literature of initial trust shows that technical structural assurance significantly affects online initial trust [16, 23, 25, 30, 31, 35, 36].

*H3: A customer's perception of technical structural assurance (TSA) is positively influences his/her initial trust in internet banking services.*

### 4.2. Firm reputation

Building a reputation is considered as one of the most important challenges for firms. A firm should pay attention on how to manage the relationship with its customers over all its life in

order to win and maintain a good reputation. When the individual does not have sufficient information or first-hand knowledge about a firm, the reputation of that firm become a factor upon which the individual depends on to make his/her decision [34]. The literature review implied that reputation of a firm plays significant role in forming initial trust toward using a service or buying a product from that firm [23, 26, 30, 36, 42].

*H4: A customer's perception of bank's reputation (REP) is positively influences his/her initial trust in internet banking services.*

#### **4.3. Diffusion of innovation factors:**

##### **Relative advantages:**

One of the most important factors in the diffusion of innovation (DOI) theory is the relative advantages, which are defined as those advantages that accompanied the new IT innovations. According to [39], some of these advantages are: convenience of the service, economic benefits, enhance personal image, and satisfaction. The factor of relative advantages has been found to have a significant effect on customer's initial trust [23, 42].

*H5: Perceived relative advantages (RA) of internet banking services is positively influences a customer's initial trust in that services.*

##### **Compatibility:**

Another factor which is included in our model from this theory is compatibility. It is defined as "the degree to which an innovation is perceived as being consistent with the existing values, past experience, and needs of potential adopters" [39]. Studies in the field of adopting new IT innovations in Jordan and neighbouring Arab countries confirmed the importance of this factor [7]. In addition, Lin et al. [31] found that compatibility of mobile brokerage service affects customer's initial trust significantly.

*H6: Perceived compatibility (CPT) of internet banking services is positively influences a customer's initial trust in that service.*

##### **Complexity:**

Complexity is defined as "the degree to which an innovation is perceived as difficult to understand and use" [39]. In this study, complexity associated with the customer's perception and the associated difficulty of using IBS. Complexity associated with the new IT innovations was found to have significant effect on their adoption [7]. However, to the best of our knowledge, complexity has not been investigated before in the context of initial trust.

*H7: Perceived complexity (CPX) of internet banking services is positively influences a customer's initial trust in those services.*

#### **4.4. National culture**

Differences in the cultural indexes between Arab countries and developing countries motivated us to investigate the effect of national culture on the adoption of new IT innovations. To the best of our knowledge, the impact of Arab's national culture on initial trust in new IT innovations has not been examined before. Although many studies have been conducted about the formation of initial trust in developed countries, only few has investigated the impact of national culture on trust, trust attitude, or initial trust [8, 12, 14]. Therefore, the effect of national culture dimensions on initial trust is hypothesised as:

- *H8: Power distance (PD) is negatively influence a customer's initial trust in IBS in the Jordanian context.*
- *H9: Uncertainty avoidance (UA) is negatively influence a customer's initial trust in IBS in the Jordanian context.*

- *H10: Individualism vs. collectivism (IC) is negatively influence a customer's initial trust in IBS in the Jordanian context.*
- *H11: Masculinity vs. femininity (FM) is negatively influence a customer's initial trust in IBS in the Jordanian context.*
- *H12: Long-term vs. short-term orientation (LSO) is negatively influence a customer's initial trust in IBS in the Jordanian context.*

#### **4.5. Familiarity with the internet**

Studies about the effect of initial trust on e-vendor considered that familiarity with a similar environment may positively affect the customer's initial trust [15, 36]. Other researchers have also stated that the familiarity with the online environment positively affect individual's initial trust in eVendors or eServices [30]. We will investigate individual's computer and internet self-efficacy in the construction of the proposed model.

*H13: A customer's computer and internet self-efficacy (CISE) is positively influences his/her initial trust in internet banking service.*

#### **4.6. Initial trust and usage intention**

Trust is considered as the milestone and key of the success of any online or offline dealing. The level of trust that individuals' have on a trustee (e.g. individual or firm) affects their intention to use its services or products [15, 17, 23, 24]. In addition, researches who focused on intention to use internet banking [25, 42] or mobile banking [23] pointed out the importance of the relationship between initial trust and intention to use internet and mobile banking services. In developing countries, trust was considered as a factor that positively influenced the acceptance, adoption or use of new IT innovations [3, 7].

*H14: A customer's initial trust is positively influences his/her intention to use internet banking services.*

### **5. Research method**

To examine the research hypotheses, a survey was conducted in Jordan. A questionnaire was adopted as a survey instrument [6]. The questionnaire consists of two parts: the first part contains questions to address the sample characteristics (i.e. demographic variables), and the second part contains measurement items adequately adapted from the literature. The questionnaire was designed to collect data at the individual level. A five-point Likert rating scale was used in the questionnaire. The instrument was pretested through conducting a pilot study in Jordan with 75 responses that were randomly distributed [5]. The study sample was made up of 1050 employees from public and private sectors. The number of returned surveys was 573, which represents a response rate of 55%. After deleting improper responses that contain outliers and missing values, the final number of usable surveys was 540. The sample characteristics showed that (57% of the participants were males, (62%) were working in the public sector, (79%) had more than 3 years of computer experience, (61%) used the internet daily, (64%) got an income less than 500 Jordanian Dinar/month, and 72% of the respondents lived in cities.

### **6. Data analysis**

In this section, we employed IBM SPSS 22.0 to reveal the sample characteristics. For the reliability, test for distribution's normality, and validity of constructs we used Cronbach's alpha, Kolmogorov-Smirnov test and exploratory factor analysis (EFA) respectively. To analyse the normality of the survey, we conducted a Kolmogorov-Smirnov test for the 540 responses. The results indicated that all measurements were significant. Thus, all the items in the survey were distributed normally.

To estimate the reliability scores of the constructs, we employed the Cronbach's alpha function. All Cronbach's alpha values were found to be more than the threshold value (according to Nunnally [38], a value of 0.7 was found to be appropriate), except for the Long term vs. Short term orientation (LSO) construct (0.515). Results show that item LSO2 has the lowest correlation with other items in the same construct; therefore, we decided to delete LSO2 which in turn increased the value of Cronbach's alpha to 0.626. We decided to accept this value, which is not considerably lower than the adopted threshold, and is accepted by other researchers, such as Malhotra [32].

To test the validity of the construct, we conducted an exploratory factor analysis (EFA) using the principal component as an extraction method and VARIMAX as a rotation method. To determine the number of the extracted factors, we used Hair et.al [18] criterion (eigenvalue greater than 1). Moreover, we followed the recommended cut-off value of greater than 0.45 with a significant level of 0.05 for a sample contains more than 150 participants [18] to ensure that a variable in each factor has a significant effect.

## 7. Structural equation modelling

In this study we used structural equation modelling (SEM) with maximum likelihood estimation to test the proposed model. The Amos software (version IBM SPSS Amos 22.0.0) was used in this analysis. The data was found to meet the following requirements of Amos: has a normal distribution, and sufficient sample size (greater than 200) [18]. To achieve more accurate results and validity, and to examine the model fit, we adopted two-step analysis in which the measurement model was first assessed and then the structural regression model was applied.

### 7.1. Confirmatory factor analysis (CFA)

In the initial CFA, we examined all the measures resulted from EFA. The values of the fit index were low which indicate that the overall fit of the initial CFA model is poor. In order to improve the fit values, we used the modification index (MI) option which is recommended by [18]. The final version of the CFA model includes 38 measures out of 49 resulted from the EFA. Based on the MI values, 11 measures were deleted (TSA3, TSA4, PD3, LSO1, LSO3, CISE3, CPT1, CPX1, CPX4, DT3, INT2, and INT3).

In addition, the internal consistency for each construct was assessed using the composite reliability [21] and shows that all the CR values are above the 0.70 threshold [18]. Also, the average variance extracted (AVE) values also support the discriminant and convergent validity. All the values of AVE are greater than 0.50 which confirm the convergent validity [18]. Moreover, the square root of the AVE for each construct was found to be more than 0.70, and is greater than the construct's correlation with other constructs [18]. Table 5 summarises the fit index of the initial and final measurement models with the respect to cut off values.

**Table 1.** Summary of fitness statistics for the measurement model

Type	CMIN/df ≤ 3	GFI ≥ 0.90	AGFI ≥ 0.80	RMR ≤ 0.50	TLI ≥ 0.90	CFI ≥ 0.90	RMSEA ≤ 0.80
Initial measurement model	2.634	0.834	0.803	0.054	0.849	0.868	0.055
Final measurement model	1.953	0.908	0.879	0.042	0.925	0.940	0.043

CMIN: the minimum chi-square, df: degree of freedom, RMR: root mean square residual, GFI: Goodness of Fit index, RMSEA: root mean square error of approximation. AGFI: Adjusted GFI, TLI: Tucker-Lewis index, CFI: comparative fit index.

The fit indices of the final measurement model are acceptable and support both convergent and discriminant validities. The final CFA values are passed to the second assessment step, i.e., the structural regression model.

## 7.2. Structural regression model

The structural model aimed to explain the theoretical relationship between the constructs. The obtained Structural model fitness incidents are: CMIN/df: 1.927, RMR: .042, GFI: .907, RMSEA: .041. AGFI: .881, TLI: .927, CFI: .940, R<sup>2</sup> for initial trust in IBS = 0.321, R<sup>2</sup> for intention to use IBS = 0.216. All the obtained values are within the recommended range, which reveal that the model has a good fit [18].

The maximum likelihood technique was used to assess the path coefficients of the relationships between constructs. Results reveal that five hypotheses were found to support initial trust in IBS (H1: Disposition to trust → initial trust, H2: Organisational structural assurance → initial trust, H4: Reputation → initial trust, H5: Relative advantages → initial trust, and H8: Uncertainty avoidance → initial trust). Moreover, H14 which evaluates the relationship between initial trust → Intention to use was also supported. On the other hand, seven hypotheses were rejected (H3, H6, H7, H9, H10, H11, and H13) as they did not have significant estimates. Also, H12 was removed during the CFA stage.

## 8. Discussion

### 8.1. Results analysis

In this study, we examined relationships between antecedents of initial trust (exogenous variables), initial trust in IBS, and intention to use IBS (endogenous variables). The obtained results indicate that the highest correlation path was between initial trust in IBS and intention to use IBS. Moreover, three factors of the trust antecedents group (disposition to trust, organisational structural assurance, and reputation) have significant effect on initial trust in IBS, while technical structural assurance does not have a significant effect. In the cultural side, only one dimension was found to significantly affect initial trust in IBS, which is uncertainty avoidance. Finally, relative advantage was the only factor from the diffusion of innovation group which was found to have significant effect on initial trust in IBS. The model explained 32.1% of the variance in initial trust in IBS.

### 8.2. Trust antecedents

In this study, the personality based trust is represented by disposition to trust. Our data did not support H1. The results showed that disposition to trust influence customer's initial trust negatively with a path coefficient (-0.126) which was found to be significant ( $p < 0.05$ ), however; this result contradicts previous studies that revealed positive effect of disposition to trust on initial trust in IBS. The justification could be since disposition to trust is built by the individual's lifelong experiences [40], the upbringing of a person plays a significant role and affects his/her disposition to trust. This could also be influenced by the context of this study, the sample population [26], and other social factors such as culture. In addition, a rational explanation of this result is that our sample population have had no prior experience with IBS, which means they will consider such eservice to be a risky activity.

Two structural assurance contexts were investigated in the current study, organisational structural assurance, which is concerned with the safeguards and regulations that banks guarantee in the work place, and technical structural assurance, which focuses on the internet environment and to which extent this environment guarantee information security and privacy. On one hand, the obtained results reveal that organisational structural assurance positively affects initial trust in IBS. Our hypothesis H2 is supported (path coefficient value of 0.180 with a significance level of  $p < 0.01$ ). The explanations of the positive effect may emerge from the individuals' understanding of the regulations and safeguards provided by banks as a previous knowledge about the bank ability to protect its customers, and therefore affect their initial trust positively. The significant impact of organisational structural assurance is supported by the results of other studies [30]. Also, the obtained results did not

support hypothesis H3 about technical structural assurance, and hence agree with the finding of prior studies [30].

The reputation of a bank, stated in hypothesis H4, is shown to have a high and positive effect on the customer's initial trust in IBS provided by that bank. The path coefficient is (0.350) with a significance level of  $p < 0.001$ . Similar findings were reported in a number of previous studies [23, 30, 42]. The rational explanation of the significant effect of reputation is that individuals depend on their knowledge about the bank to determine whether to trust it or not. In other words, individuals consider bank's reputation as first-hand knowledge that is used to build their initial trust of any service offered by that bank. The argument about trust antecedents confirmed the suggestion that initial trust is built upon three trust bases [34]: personality (disposition to trust), institutional (organisational structural assurance), and cognitive (reputation).

### **8.3. Diffusion of innovation**

Three factors from this theory have been examined in this study: relative advantages, compatibility, and complexity. The obtained results support H5 with a path coefficient of (0.405) which indicates that relative advantages positively and significantly affect initial trust in IBS in the Jordanian context. Relative advantages scored the highest coefficient among all antecedents, and it was the strongest in affecting initial trust in IBS. This is consistent with previous findings [23, 42] and confirms the importance of this factor. However, the obtained results do not support H6 and H7. Obtained results related to the diffusion of innovation theory factors indicate that customers who have not used IBS before could not comprehend the compatibility and complexity associated with IBS, and hence those two factors did not influence customers' initial trust in IBS.

### **8.4. National culture dimensions**

This study investigates five cultural dimensions of the Hofstede's cultural theory [20]. Hypotheses H8 to H12 represent the proposed relationships between these dimensions and initial trust in IBS in the Jordanian context. It was expected that the uncertainty avoidance index would negatively impact building initial trust in IBS. A rational explanation is that since uncertainty avoidance is defined as tolerance for uncertainty and initial trust is built without any prior knowledge, people who live in a culture of high uncertainty avoidance index have low tolerance to uncertainty and thus low tendency toward trusting ambiguous services. According to Al-Hujran et.al [1], this index is noticeably higher in the Arab countries, including Jordan, compared to the USA and other western countries. The obtained results support this statement, as they show that uncertainty avoidance has a negative effect on initial trust in IBS with path coefficient -0.166, and a significance level of  $p < 0.01$ . Previous studies also support this finding [8, 12, 14].

The last latent factor is computer and internet self-efficacy (hypothesis H13). This factor focuses on the general experiences and skills that individuals have in computers and internet. The obtained results do not support this hypothesis, and accordingly indicate that technological experience of individuals do not affect their tendency toward trusting ambiguous technological services.

Finally, the relationship between initial trust in IBS and intention to use IBS (H14) is confirmed according to the obtained results, where this hypothesis is assigned the highest path coefficient in the model (0.465) with a significance level of  $p < 0.001$ . This hypothesis was also supported by previous studies [23, 25, 31, 42].

### **8.5. Implications**

This study contributes to the scholarly literature of initial trust and the literature of intention to use new innovations in relatively new context. Although intention to use new technological innovations has been studied before, our model is more comprehensive and noticeably differs from existing e-services models that have been proposed for similar environments [3].

Moreover, initial trust has not been thoroughly investigated in developing and Arab countries, thus; one of the main contributions of this study is to introduce a highly justifiable theoretical foundation for investigating initial trust in the context of IBS in developing countries.

The results provide empirical evidence to support: (i) the relationship between initial trust and the behavioural intention to use IBS; (ii) relationships between initial trust and its predictors (disposition to trust, organisational structural assurance, reputation, and relative advantages); (iii) differences in culture have significant effect on initial trust formation in ambiguous and uncertain environments, such as IBS.

Practically, banks in Jordan should pay more attention on marketing their online services through explaining their advantages in terms of reducing cost, saving time, and improving convenience and efficiency. This can be achieved by enforcing customers' belief in the efficiency and effectiveness of the technology, which in turn will affect their belief in the relative advantages of online services.

## 9. Conclusion

Despite its importance for many developing countries, only few studies currently exist about the formation of initial trust in developing [42] and Arab countries [2]. The current study proposed and examined a unified model of initial trust formation in IBS in the context of developing countries. Different dimensions were utilized, including: national culture, diffusion of innovation theory, and computer and internet self-efficacy. The empirical investigation of our model enhances our understanding of initial trust formation in developing and Arab countries. We conducted an empirical examination by surveying employees in Jordan during the second half of 2014 for the research model of this study. The collected data was analysed and the model hypothesis were tested through applying important tests and approaches such as: reliability, normality distribution, EFA, CFA, and SEM.

Findings of this study have significant implications for the academic and practical fields. Previous studies that deal with online initial trust in developing countries have not focused on the cultural influence [2]. Also, this collection of factors has not been examined in a comprehensive framework before. Moreover, conducting such a study in the context of Arab countries contributes to bridging the gap between developing and developed countries. In addition to its obvious contributions to the adoption of IBS in developing countries, this study will also be beneficial to the adoption of other online services. Accordingly, generalization of the proposed model to other services/countries is possible and will open the door for new studies.

## 10. References

- [1] Al-Hujran, O., Al-dalameh, M. & Aloudat, A. (2011). The Role of National Culture on Citizen Adoption of E-government Services: An Empirical Study. *Electronic Journal of E-Government*, 9(2), 93-106.
- [2] Al-Jaafreh, A., Gill, A., Al-Ani, A. & Al-adaileh, R. (2014). A Review of Literature of Initial Trust in E-Services: The Case of Internet Banking Services in the Jordanian Context. *Journal of Electronic Banking Systems*.
- [3] Al Sukkar, A. & Hasan, H. (2005). Toward a model for the acceptance of internet banking in developing countries. *Information Technology for Development*, 11(4), 381-398.
- [4] Aladwani, A. M. (2003). Key Internet characteristics and e-commerce issues in Arab countries. *Information Technology & People*, 16(1), 9-20.
- [5] Aljaafreh, A. & Al-Ani, A. (2014). Conceptualizing Initial Trust in Internet Banking Services: A Pilot Study. *Information Systems Development: Transforming Organisations and Society through Information Systems (ISD2014 Proceedings)*. Varaždin, Croatia: Faculty of Organization and Informatics.

- [6] Aljaafreh, A., Al-Ani, A., Aladaileh, R. & Aljaafreh, R. (2015). Initial trust in Internet banking service in Jordan: modelling and instrument validation. *Journal of Theoretical & Applied Information Technology*, 74(1).
- [7] Alomari, M., Woods, P. & Sandhu, K. (2012). Predictors for e-government adoption in Jordan: Deployment of an empirical evaluation based on a citizen-centric approach. *Information Technology & People*, 25(2), 207-234.
- [8] An, D. & Kim, S. (2008). Effects of National Culture on the Development of Consumer Trust in Online Shopping.
- [9] Bahmanziari, T., Odom, M. D. & Ugrin, J. C. (2009). An experimental evaluation of the effects of internal and external e-Assurance on initial trust formation in B2C e-commerce. *International Journal of Accounting Information Systems*, 10(3), 152-170.
- [10] Bidgoli, H. (2004). *The internet encyclopedia*. New York: John Wiley and Sons.
- [11] Doney, P. M. & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *the Journal of Marketing*, 35-51.
- [12] Doney, P. M., Cannon, J. P. & Mullen, M. R. (1998). Understanding the Influence of National Culture on the Development of Trust. *Academy of Management review*, 601-620.
- [13] Gefen, D. (2000). E-commerce: The Role of Familiarity and Trust. *Omega*, 28(6), 725-737.
- [14] Gefen, D. & Heart, T. H. (2006). On the Need to Include National Culture as a Central Issue in E-commerce Trust Beliefs. *Journal of Global Information Management (JGIM)*, 14(4), 1-30.
- [15] Gefen, D., Karahanna, E. & Straub, D. W. (2003). Trust and TAM in Online Shopping: an Integrated Model. *MIS quarterly*, 51-90.
- [16] Gefen, D. & Straub, D. W. (2003). Managing User Trust in B2C E-services. *E-service Journal*, 2(2), 7-24.
- [17] Gefen, D. & Straub, D. W. (2004). Consumer Trust in B2C E-commerce and The Importance of Social Presence: Experiments in E-products and E-services. *Omega*, 32(6), 407-424.
- [18] Hair, J., Black, W., Babin, B., Anderson, R. & Tatham, R. (2006). *Multivariate Data Analysis*: NJ: Pearson Prentice Hall.
- [19] Hofstede, G. (1980). *Culture's consequences: International differences in work-related values (5 bindi)*: Sage Publications, Incorporated.
- [20] Hofstede, G. (1997). *Cultures and organizations: software of the mind*. New York: McGraw-Hill.
- [21] Khadraoui, M. & Gharbi, J.-E. (2013). Initial trust toward an unknown website. *á Computer and Information Technology (WCCIT), 2013 World Congress on*.
- [22] Kim, E. & Tadisina, S. (2007). A model of customers' trust in e-businesses: micro-level inter-party trust formation. *Journal of Computer Information Systems*, 48(1), 88-104.
- [23] Kim, G., Shin, B. & Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19(3), 283-311.
- [24] Kim, J. B. (2012). An Empirical Study on Consumer First Purchase Intention in Online Shopping: Integrating Initial Trust and TAM. *Electronic Commerce Research*, 12(2), 125-150.
- [25] Kim, K. K. & Prabhakar, B. (2004). Initial Trust and the Adoption of B2C E-Commerce: The Case of Internet Banking. *ACM sigmis database*, 35(2), 50-64.
- [26] Koufaris, M. & Hampton-Sosa, W. (2004). The Development of Initial Trust in an Online Company by New Customers. *Information & Management*, 41(3), 377-397.
- [27] Lee, M. K. & Turban, E. (2001). A Trust Model for Consumer Internet Shopping. *International Journal of electronic commerce*, 6, 75-92.
- [28] Lee, S. M. & Lee, S. J. (2005). CONSUMERS'INITIAL TRUST TOWARD SECOND-HAND PRODUCTS IN THE ELECTRONIC MARKET. *Journal of Computer Information Systems*, 46(2).
- [29] Leidner, D. E. & Kayworth, T. (2006). Review: A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict. *MIS quarterly*, 30(2), 357-399.

- [30] Li, X., Hess, T. J. & Valacich, J. S. (2008). Why Do We Trust New Technology? A Study of Initial Trust Formation with Organizational Information Systems. *The Journal of Strategic Information Systems*, 17(1), 39-71.
- [31] Lin, J., Lu, Y., Wang, B. & Wu, S. (2011). Initial Trust and Adoption of Mobile Brokerage Service. *International Journal of Mobile Communications*, 9(2), 124-143.
- [32] Malhotra, N. K. (2008). *Marketing Research: An Applied Orientation*, 5/E: Pearson Education India.
- [33] Mayer, R. C., Davis, J. H. & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review*, 20(3), 709-734.
- [34] McKnight, D. H., Cummings, L. L. & Chervany, N. L. (1998). Initial Trust Formation in New Organizational Relationships. *Academy of Management review*, 473-490.
- [35] McKnight, H., Choudhury, V. & Kacmar, C. (2002a). Developing and Validating Trust Measures for E-Commerce: An Integrative Typology. *Information systems research*, 13(3), 334-359.
- [36] McKnight, H., Choudhury, V. & Kacmar, C. (2002b). The Impact of Initial Consumer Trust on Intentions to Transact with a Web Site: a Trust Building Model. *The Journal of Strategic Information Systems*, 11(3), 297-323.
- [37] Moore, G. C. & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), 192-222.
- [38] Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- [39] Rogers, E. M. (1995). *Diffusion of innovations*. New York: Free press.
- [40] Rotter, J. B. (1971). Generalized Expectancies for Interpersonal Trust. *American psychologist*, 26(5), 443-452.
- [41] Statista, c. (2012). development of global online banking penetration in April 2012 by region (percent).
- [42] Susanto, A., Lee, H., Zo, H. & Ciganek, A. P. (2013). User Acceptance of Internet Banking in Indonesia: Initial Trust Formation. *Information Development*, 1-14.