International Journal of Bank Marketing

Consumer's initial trust formation in IOB's acceptance: The role of social influence and perceived compatibility

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The role of social influence and perceived compatibility

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Received 21 December 2017
Revised 12 April 2018
20 May 2018
Accepted 26 June 2018

Abstract

Purpose – The purpose of this paper is to explore how variables like propensity to trust, website usability, social influence, customer awareness about internet-only banks (IOBs) and perceived compatibility influence customers' initial trust formation toward IOBs' acceptance. The model is based on the technology acceptance model, diffusion of innovation theory and theory of reasoned action.

Design/methodology/approach – A non-probability convenience sample of 239 IOBs' potential adopters from France was used to test the structural equation model between initial trust antecedents and IOB's usage intention.

Findings – Findings confirm the important role of trust in initiating customers' relationship with IOBs and show that social influence, compatibility and website usability contribute the most to IOB's initial trust formation. Indeed, it has been found that the level of consumer information about IOBs and propensity to trust have a moderate impact on consumer's initial trust. Results revealed that there is a general lack of consumer's awareness about IOB's services features.

Practical implications – To promote the trustworthiness of their sites and services to potential consumers, IOBs should enhance WOM by using social network applications. IOBs need to develop marketing communication campaigns in which they can educate potential customers about IOB's features. In addition, IOBs should demonstrate to their customers that IOBs' banking system is consistent with their current lifestyle. IOBs are encouraged to develop a favorable impression by investing heavily on their website usability and information design.

Originality/value – This study contributes significantly to the marketing research literature related to consumer trust and electronic banking literature. Indeed, only a few marketing studies have been conducted about IOBs. The results show the role played by initial trust formation in the case of IOBs. In addition, it points out the importance of five trust cues: individual cues, knowledge cues, institutional cues, cognitive cues and social cues (social influence).

Keywords Compatibility, Social influence, Trust, Internet-only banks, Propensity to trust

Paper type Research paper

Introduction

Banking has come a long way from the days when consumers had to stop by a bank branch or an ATM machine to complete their payments and check their balances. Today, consumers use both online and mobile banking, and are seeking greater accessibility and control over their personal finances – a service which is provided by the immediacy of online banking. Online banking has become the norm in developed economies. In 2017, France has been quick to adopt digital banking and has taken the lead over some other developed markets, including the USA, where just 69.3 percent of internet users bank digitally (eMarketer, 2017). Indeed, almost 80 percent of the French's internet users (33.8m people) have visited an online banking site at least once a month, and it is estimated that nearly 70 percent of France's adult population and 84.3 percent of its adult internet users will bank online in 2021 (eMarketer, 2017). Compared to other European countries, French customers

International Journal of Bank Marketing

0265-2323
DOI 10.1108/IJBM-12-2017-0270

are also more likely to manage their financial investments online than are banking customers from other European countries such as the UK (68 percent of internet banking penetration) or Germany (59 percent of internet banking penetration) (Statistica, 2016).

Even though French customers seem to be adopting more online banking along with traditional banking ("clicks and mortar" banking model), customers are still skeptical toward using internet-only banks (IOBs). IOB adoption rate in France was estimated to be 10 percent of the French banking sector in 2016 (Simon-Kucher & Partners-Research Now, 2017). Thus, IOB's penetration rate in France increased from 7.1 percent in 2014 to 8.3 percent in 2015 (+1.4 percent per year). In addition, Macron's new law simplifying customer mobility in relation to bank accounts was expected to generate more growth in 2017 (OpinionWay Study for Fortuneo, 2017). It is expected that one in five French banking customers intend to change their bank during the next 12 months, and 24 percent of them claim to be ready to opt for an IOB (OpinionWay Study for Fortuneo, 2017). IOBs are like e-retailers with reduced overhead expenses, offering a lot of advantages such as convenience and cost savings (higher interest rates on deposit accounts, lower loan rates and reduced fees).

Being branchless, IOBs are only accessible via website or mobile applications. The IOBs operating in the French market are historically brokers or saving institutions such as ING Direct (Groupe néerlandais ING), subsidiaries of traditional banks as Boursorama (Société generale), BforBank (Crédit agricole), Fortuneo (Crédit mutuel-Groupe Arkéa), Hello Bank (BNP Paribas), Monabanq (Crédit mutuel-CIC) or insurance firms (Axa banque, Allianz banque, etc.) (Table I). In order to attract new customers, most IOBs offer attractive promotional offers like free bank cards, with a bonus sum of cash (€80 to €120) to open a new account. Following the success of IOBs, traditional banks have been adopting a defensive approach. They had to implement online channels to serve consumers who need self-care offerings in parallel with their branches (eLCL for LCL banque, la Net Agence for BNP Paribas, etc.).

In recent years, more competitive actors entered the pure players' environment. This refers to FinTechs like the "Nickel Account" (an account "without bank" that can be opened on presentation of an ID card in 2,500 licensed tobacconists in France) or mobile banks such as Soon (Axa banque), N26 and, recently, Orange Bank (launched in November 2017) accessible only through mobile. On the other hand, an IOB is recognized as a dynamic and evolving sector; therefore, the competition remains fierce. In this context, IOBs consider trust building as a strategic imperative to enhance consumer loyalty, attract new consumers and ultimately capitalize upon the growing popularity of the sector (Kaabachi *et al.*, 2017).

Since IOBs involve more risk than a regular brick and mortar banks due to the distant and spatial nature of the online environment and the uncertainty of using an open technological infrastructure for financial transactions, consumers indicated that they did not trust IOBs and felt unsafe using them. Globally, 44 percent of consumers do not trust financial organizations that do not have any branches (EY's Global Consumer Banking Survey, 2016). Indeed, 64 percent of French banking consumers indicate that they want to visit a branch and call a real person to purchase a new product or get advice. According to

Table I. The main IOBs operating in France

	Owner	Date of establishment	Number of clients in 2017
BforBank	Crédit Agricole	2009	165.000
Boursorama	Société générale	2004	1,000.000 (+24%/2016)
Fortuneo	Credit Mutuel-Arkea	2000	365.000
Hello bank	BNP Paribas	2013	300.000
ING Direct	Groupe néerlandais ING	2000	1,000.000

EY's Global Consumer Banking Survey (2016), customers' trust in banks in France is the lowest in Europe (36 percent). Moreover, it seems that the lack of trust is one of the most cited reasons which discourages French bank consumers to use IOBs services (Simon-Kucher & Partners-Audirap, 2014; Simon-Kucher & Partners, 2015; OpinionWay Study for Boursorama, 2014; EY's Global Consumer Banking Survey, 2016). Trust is one of the main issues that often present a challenge for both customers who want to trust their banks and for financial institutions that need to retain customers and grow their business. Thus, IOBs are aware of the importance of establishing trust with their customers (EY's Global Consumer Banking Survey, 2016).

It is, therefore, important for IOBs to understand the variables that contribute to consumer's initial trust. While it has been proven that trust strongly affects French consumers' decision to use internet banking and become loyal toward the service (Sanchez and Gallie, 2010; Sahut *et al.*, 2011), a very little has been written about IOB's trust. While it is established that IOBs and click and mortar models are the main players operating in the online banking sector, there is no research that has distinguished consumers' trust toward these two e-banking models. The term online bank is used interchangeably to design IOBs and the click and mortar banking model in the literature related to internet banking. This research overcomes this gap by focusing on IOB's model. In addition, the IOB industry is so new that a very little has been written about it in the marketing literature.

This research extends previous research investigating IOBs' initial trust building antecedents in the French context (Kaabachi *et al.*, 2017). Based on theories such as technology acceptance model (TAM) (Davis, 1989), diffusion of innovation theory (DOI) (Rogers, 2003) and theory of reasoned action (TRA) (Ajzen and Fishbein, 1980), we attempt to explore how other variables such as propensity to trust, website usability, social influence, customer awareness about IOBs and perceived compatibility influence the initial formation of French consumers' trust toward IOBs. While previous research has explored some variables that contribute to IOB's initial trust (Kaabachi *et al.*, 2017), none of the research has explored the effect of social influence, customers' propensity to trust and website usability.

First, we present the literature review related to the role of trust in bank relationship by emphasizing on the initial trust concept. Then, the theoretical hypotheses are developed and tested. Next, we present the methodology used, followed by an analysis and results. Finally, a discussion and research implications are highlighted with research limitations and suggestions for future research.

Conceptual model and research hypotheses

Trust in banking

A large stream of research has emphasized the relevance of trust in all long-term relationships at least in the financial markets, regardless of their nature (Hurley *et al.*, 2014). Trust is important to improve customer relationships in general, since it facilitates transactions with customers and reduces uncertainty (Morgan and Hunt, 1984). In the banking sector, consumers with a certain level of trust expect that financial institutions will not behave opportunistically at their expense, even if there is an opportunity to do so (Nooteboom, 1996). Bank's trust has been defined as the expectation held by customers that the bank keeps its promises and acts according to the agreed promises, procedures and outcomes (Pauline *et al.*, 2017). Consumer's trust in e-banking services has gained special interest as a research area of its own and trust has been identified as a critical factor for e-banking adoption (Al-Ajam and Khalil, 2013; Nguyen *et al.*, 2014; Suh and Han, 2002; Yousafzai *et al.*, 2005, 2009; Dimitriadis and Kyrezis, 2010; Grabner-Kraeuter and Faullant, 2008; Montazemi and Qahri-Saremi, 2015; Md Nor and Pearson, 2008; Aljaafreh, 2016).

However, the majority of these studies focused essentially on consumers with prior experience with online banks, where trust is usually knowledge based, and results from the accumulated experience of dealing with e-banking service providers. Thus, it is important to note that very few researchers expressed interest in consumer's initial trust toward e-banks (Kim and Prabhakar, 2004; Aljaafreh, 2016; Susanto *et al.*, 2013; Kaabachi *et al.*, 2017). Initial trust is established at the initial stage of the relationship and occurs when parties are unfamiliar with each other and do not have credible and meaningful information about each other (Bigley and Pearce, 1998). Initial trust is crucial to relationship building between consumers and online vendors, since initial consumers' beliefs regarding vendor trustworthiness determine whether or not customers will make their first purchase. Therefore, studying initial trust is particularly relevant when focusing on the period during which a consumer intends to interact with IOBs' website for the first time. Unlike traditional banks, IOBs do not have a well-known offline brand and may encounter challenges building consumer's trust in their services. Obviously, initial trust is easier to build when the bank is a brick and mortar institution because consumers consider brand recognition as being one of the most important criteria in their banking institution choice. McKnight *et al.* (1998) defined initial trust as one who believes in and is willing to depend on another party and distinguished between two constructs: trusting intention (behavioral aspect), the trustor's willingness or intent to depend on the trustee in a given situation (Currall and Judje, 1995); and trusting beliefs (cognitive aspect) refer to an expectation or sentiment about an exchange partner's "ability, benevolence and integrity" (Gefen and Straub, 2004). In the banking context, Pauline *et al.* (2017) identified integrity (the fairness, morality, honesty and "good character" of the bank), transparency (the information provision, the disclosure of rules, regulations and processes, the ease and comprehensibility of products and services, and the accessibility for questions and complaints), customer orientation (customer care and customer empowerment) and competence (product and consumer knowledge) as the most important determinants of bank trust.

Initial trust formation and its antecedents. In an e-commerce setting, company's reputation information and an offline parent brand are important cues on which consumers may rely to base their trust toward an online retailer. However, such information may not be available to consumers when they deal with unfamiliar e-vendors (Brengman and Karimov, 2012). Initial trust is based on the first impression that the customer has about the company or an e-tailer (Wakefield *et al.*, 2004; Kaabachi *et al.*, 2017). It consists of the initial stages of the trust relationship and is one of the most important one to build long-term relationships (McKnight *et al.*, 1998). Drawing on the attribution and cue utilization theory, prior researchers have suggested several cues that influence trustworthiness inferences in initial relationships (Geigenmüller and Greschuchna, 2011; Wood *et al.*, 2008). Initial trust depends on customers' trusting intentions (dependence on another person) as well as their trusting beliefs (ability, benevolence and integrity of the trustee) (McKnight *et al.*, 1998).

The literature agrees that initial trust between parties will be based on personality cues related to an individual's deposition to trust or on institutional cues that enable one person to trust others (Gefen *et al.*, 2003; McKnight *et al.*, 1998). Prior trust research indicates that a trustor may categorize an unfamiliar trustee as trustworthy or untrustworthy based on rapid cognitive cues or first impressions (Meyerson *et al.*, 1996) such as vendor reputation, website design quality and website assurance (Lu and Zhou, 2007; Li *et al.*, 2008; Lowry *et al.*, 2008; Zhou and Tian, 2010; Karimov *et al.*, 2011; Wu *et al.*, 2011; Aljaafresh, 2016). In addition to the trust literature, technology theories such as TAM (Davis, 1989) and DOI theory (Rogers, 2003) are most widely used in studying online initial trust in electronic commerce. It has been stated that variables such as consumer awareness about a new service, perceived relative advantage, compatibility, perceived usefulness, ease of use and subjective norm impact consumers' initial trust in the e-vendor (Karimov *et al.*, 2011; Koufaris and Hampton-Sosa, 2004; Zhou and Tian, 2010;

Zhou, 2014). Several variables have been found to generate initial trust in the e-tailing context to the user's characteristics such as his/her propensity to trust, personal innovativeness and familiarity with technology (Yu and Asgarkhani, 2015); however, some other variables are related to the company itself (reputation, size and corporate image). In the internet online banking environment, previous research has shown that familiarity with internet banking and bank reputation were found to affect consumers' initial trust in IOBs (Kaabachi *et al.*, 2017). In addition, website quality, its usability and the quality and quantity of information also affect initial trust (Yousafzai *et al.*, 2005). Finally, the establishment of initial trust depends also on a person's perceptions of the institutional environment and his/her feelings or beliefs that the environment in which he or she transacts has appropriate safeguards and protections (McKnight and Chervany, 2002). Thus, factors such as structural assurance, situational normality, internet trust, government regulations as well as third-party endorsements have been identified as positive predictors of trusting beliefs toward a web-based vendors (McKnight and Chervany, 2002; Gefen *et al.*, 2003; Li *et al.*, 2008; Lowry *et al.*, 2008; Wakefield *et al.*, 2004; Kim, 2012; Grabner-Kraüter, 2008; Aljaafresh, 2016).

While previous studies have explored initial trust in the e-tailing context as well as for bricks and mortar banks, this study extends a previous study of initial trust formation to the context of internet-only banking (Kaabachi *et al.*, 2017) and incorporates propensity to trust, website usability, social influence, customer awareness about IOBs and perceived compatibility as antecedents of initial trust formation in IOBs' acceptance (Table II).

The model is presented in Figure 1.

Development of theoretical model

Propensity to trust

Trust characteristics are those factors that influence tendency to trust and can be associated with the psychological, interpersonal, experiential and cultural features that influence the process of trusting others. Propensity to trust is one of them (Jones and Leonard, 2008; Li *et al.*, 2008). It is a psychological trait that refers to the tendency to believe or not believe in others and trust them (McKnight *et al.*, 1998). This tendency is formed by the trustor's lifelong experiences, and impacts how much trust one has for others prior to any interaction (Mayer *et al.*, 1995). In the e-commerce context, the results regarding the influence of trust propensity on online initial trust have been contradictory. While previous studies suggest that when the relationship between the trustor and the trustee is new, such as in the case between a customer and an unfamiliar e-tailer, disposition to trust will be a strong determinant of initial trust (McKnight, Choudhury and Kacmar, 2002; Li *et al.*, 2008; Wu *et al.*, 2011; Chen and Barnes, 2007; Chang and Chen, 2008; Gefen and Straub, 2004; Kim, 2012; Brengman and Karimov, 2012; Gu *et al.*, 2016; Chiu *et al.*, 2017), others show that the propensity to trust is not an important precursor of initial trust building (McKnight and Chervany, 2002; Lowry *et al.*, 2008; Wu *et al.*, 2011; Aljaafreh, 2016).

Several studies have supported a significant relationship between the individual's disposition to trust and his or her initial trust toward banking channels (Grabner-Kraeuter and Faullant, 2008; Md Nor and Pearson, 2008; Susanto *et al.*, 2013; Montazemi and Qahri-Saremi, 2015; Wang *et al.*, 2017). Dimitriadis and Kyrezis (2008) showed that propensity to trust influences customers' bank trust for brick and mortar as well as some distribution channels such as ATMs, internet and phone banking. In addition, a person who tends to believe that others are generally reliable and easy to trust will believe that online banks will act in his/her best interest, keeping promises and remaining honest (Yu and Asgarkhani, 2015). Thus, we expect that:

H1. There is a positive relationship between propensity to trust and French consumer's initial trust in IOBs.

Constructs	Measures	Sources
Initial trust toward IOBs	I believe that IOBs provide reliable financial services I believe that IOBs provide safe financial services I believe that IOBs are predictable about their services I believe that IOBs provide detailed Information about their terms and conditions (purchase process) I believe that IOBs provide accurate financial services I believe that IOBs are trustworthy	Kim *et al.* (2009), Wu and Chen (2005)
Usage intention of IOBs	I will use IOBs for my banking needs Using IOBs for handling transactions is something I will do I will see myself using IOBs for processing my banking transactions	Cheng, Lam and Yeung (2006)
Perceived website usability	IOBs website is easy to use, even when visiting it for the first time The IOBs website content was accurate and well organized The IOBs website menu options were easy to understand and straightforward Navigation throughout the IOBs website was complicated The structure of this site seems logical to me	Loonam and O'Loughlin (2008), Susanto *et al.* (2013)
Propensity to trust	Generally, I trust other people I feel that people are generally trustworthy I rely that people will do what they promise to	Dimitriadis and Kyrezis (2008)
Perceived compatibility	Using IOBs fit well with the way all aspects of my banking activities IOBs fit my needs Using IOBs is well suited to my working style Using IOBs fits well with the way I like to manage my finance	Gounaris and Koritos (2008)
Social Influence	People who are important to me would think that I should use IOBs People who influence me would think I should use IOBs People whose opinions are valued to me would prefer that I should use IOBs	Wu and Chen (2005)
Level of information about IOBs	I believe to be (totally … Not all) informed about the range of products and services offered by IOBs I believe to be (totally … Not all) informed about the benefits of using IOBs I believe to be (totally … Not all) informed about using of IOBs I believe to be (totally … Not all) informed about security and privacy issues I believe to be (totally … Not all) informed about the IOBs from media	Al-Somali *et al.* (2009)

Table II.
Scales and construct measures

Website usability

Website usability is defined as the user's subjective perception regarding the amount of effort necessary to learn and use a technology and is one of the two main beliefs of the TAM (Davis, 1989). It has to do with browsing the website with ease and perceived ease of use. Past research has demonstrated that high website usability and good navigability contribute to the level of trust that users have toward an e-tailer website (Cyr, 2008; Wu *et al.*, 2011; Chen and Dibb, 2010). Several studies have established a positive relationship between usability and initial trust and have demonstrated that a well-designed website, that is easy to use, will be relevant for new customers since it will help them develop their initial trust beliefs toward the company (Koufaris and Hampton-Sosa, 2004; Hampton-Sosa and Koufaris, 2005). The same relationship prevails in internet banking services (Susanto *et al.*, 2013; Dimitriadis and Kyrezis, 2010; Wang and Shan, 2013). An easy to use e-banking website with well-designed

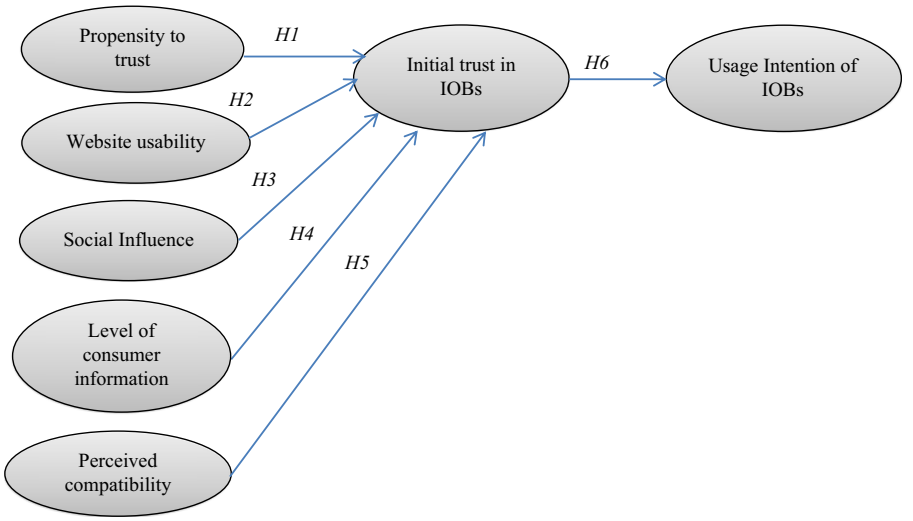

Figure 1.
Conceptual model

interfaces and powerful navigation tools will reflect the bank's benevolence and affect the user's trust. In addition, research has shown that website ease to use is the most important factor considered by French consumers when they intend to adopt internet banking (Sanchez and Gallie, 2010; OpinionWay study for Boursorama, 2014). Therefore, we posit that:

H2. There is a positive relationship between website usability and French consumer's initial trust in IOBs.

Social influence

Social influence is defined as a "person's perception that most people who are important to him think he should or should not perform the behavior in question" (Ajzen and Fishbein, 1980). According to the TRA, people may choose to perform a behavior even if they are not favorable toward it as long as it is favorable to the referent group. Research has shown that social influence, particularly advice obtained from peers such as friends, family members and colleagues, is a strong influencer in building trust (Sztompka, 1999). In their studies, Li *et al.* (2006, 2008) pointed out the significant effect of subjective norm on trusting beliefs and attitudes. Similarly, Zhou and Tian (2010) indicated that there is a significant positive relationship between perceived reference power and consumers' online initial trust toward an online vendor. In online banking, several researchers have demonstrated the effect of social influence on consumers' trust (Montazemi and Qahri-Saremi, 2015; Chaouli *et al.*, 2016). Yousafzai *et al.* (2005) asserted that the presence of customers' testimonials on the website encourages consumers to develop trusting beliefs toward the bank. In the French context, Sanchez and Gallie (2010) found that social influence impacts the consumers' decision to use internet banking. Thus, we posit that:

H3. Social influence will positively affect French consumer's initial trust in IOBs.

The level of information

The adoption process starts with the knowledge stage, in which an individual learns about the existence of innovation and seeks information about it (Ismail, 2006). According to DOI

theory (Rogers, 2003), the level of information about innovations is crucial in the adoption initial stage to increase product awareness among consumers and reduce their uncertainty (Rogers, 2003). Several studies indicated the important role of information content in signaling online merchant trustworthiness (Cyr, 2008; Ganguly *et al.*, 2009; Gao *et al.*, 2010). Chen and Dibb (2010) demonstrated that trust increases with the provision of high-quality product information on the website. Site trustworthiness depends on the extent to which the product information is sufficient, up to date, easy to understand, relevant, consistent and accurate (Chen and Dibb, 2010). Numerous studies in e-banking have established that information content and information quality positively influence consumer's trust (Montazemi and Qahri-Saremi, 2015; Yu and Asgarkhani, 2015). Thus, we expect that:

H4. A high level of customer information will positively affect French consumer's initial trust toward IOBs.

Perceived compatibility

Perceived compatibility is defined as the degree to which an innovation is perceived as consistent with the existing sociocultural values and beliefs, past experiences and needs of adopters (Rogers, 2003). It also involves the degree to which the new innovation is consistent with existing consumer affect, cognition and behavior (de Ruyter *et al.*, 2001). In the Chinese online banking context, Shan and Lu (2009) showed a positive relationship between the compatibility perceived by customers toward online banking and initial trust toward online banking. This finding contradicts Aljaafreh's (2016) study, which rejects the effect of perceived compatibility on IOBs' initial trust. In addition, compatibility was found to be a significant factor that reduces the level of risk perception and enhances customer's trust in 3G mobile banking services (Lee *et al.*, 2003). In the same vein, Lin *et al.* (2011) demonstrated the impact of perceived compatibility on initial trust toward mobile brokerage services as well as the intention to adopt it. Perceived compatibility has been found to be positively related to attitude (Md Nor and Pearson, 2008) and internet banking adoption (Ndubisi and Sinti, 2006; Gounaris and Koritos, 2008; Mansumitrchai and Chiu, 2012; Al-Ajam and Nor, 2013). Sanchez and Gallie (2010) pointed out that French consumers intended to use internet banking when they perceived the new banking channel as being compatible with their lifestyles and banking needs. Thus, we hypothesize that:

H5. High perceived compatibility will positively affect French consumer's initial trust in IOBs.

Usage intention

It has been established that trust plays a central role in building successful long-term interpersonal business relationships (Dwyer *et al.*, 1987). The effect of trusting beliefs on behavioral intention has gained significant support in the trust literature (Gefen *et al.*, 2003; Lowry *et al.*, 2008; McKnight *et al.*, 1998; McKnight, Choudhury and Kacmar, 2002; Zhou and Tian, 2010; Slade *et al.*, 2016; Gu *et al.*, 2016; Chiu *et al.*, 2017). Trusting beliefs ensure that the vendor is both able (because of his/her competence) and willing (due to his/her benevolence and integrity) to deliver the goods and services purchased (McKnight, Choudhury and Kacmar, 2002). Customer trust reduces any behavioral uncertainty toward e-tailers, and provides him/her with the feeling of some control over a potentially uncertain transaction, encouraging their usage intention and helping build long-term relationships (Bhattacherjee, 2002). Several researchers revealed that the intention to patronize internet banking depends on the consumer's trusting beliefs about the bank (Dimitriadis and Kyrezis, 2008, 2010; Montazemi and Qahri-Saremi, 2015; Nguyen *et al.*, 2014; Yousafzai *et al.*, 2009;

Kaabachi *et al.*, 2017). French consumers have been found to value trust toward internet banking (OpinionWay Study for Boursorama, 2014), which strongly affects their usage intention (Simon-Kucher & Partners, 2015). Therefore, we posit that:

H6. Consumers' initial trust in IOBs will positively affect French consumer's intention to adopt it.

Research methodology

Sample and data collection

This study looked at the factors affecting French consumers' initial trust in IOBs. In this study, internet bankers were considered as IOB's potential adopters. They are still IOB's non-adopters and might become IOB's users. A non-probability convenience sample was used in Summer 2015 and 400 questionnaires were sent through an e-mail announcement to senior undergraduates and MBA students (two-thirds of respondents) as well as to academic and administrative staffs (one-third of respondents) from a large French business school located in Paris. Participants were selected by using a non-probability convenience sampling technique (Zikmund, 2003). As an incentive to participate, students were offered a credit of two extra points added to one of their exams. Only 239 surveys could be used due to missing data and incomplete surveys.

The questionnaire was translated and back-translated to French, making sure that the meanings of words and sentences did not change across culture. Cross-cultural equivalence (normative, semantic and measurement) was ensured (Mullen, 1995). The questionnaire was first sent to three academic experts on e-commerce and two on financial and banking sector for their feedback. Based on their comments, we revised the questionnaire. Then, a pilot test was conducted on a representative sample of 30 individuals and the questions were modified according to the results.

The survey comprised three sections. A few introductory questions referring to consumers' general knowledge about IOBs and their familiarity with existing IOB brands in France were asked at the beginning of the questionnaire to filter respondents. This information was essential to participate in the survey to make sure that the sample consists of non-users of IOBs. In the following section, questions about each construct were asked and consumers had to indicate their agreement or disagreement based on a five-point Likert scale (1 – strongly disagree to 5 – strongly agree). The measurement items (Table II) were based on existing scales. The questionnaire was pre-tested first with a pilot sample of 30 respondents. Demographic questions were in the survey's third final section of the survey. Initial trust, website usability and propensity to trust assessment were adapted from previous scales developed in the literature on initial trust and its antecedents in the e-commerce domain in addition to the literature review related to trust in online and mobile banking services. Perceived initial trust was measured by six items adapted from Kim *et al.* (2009) and Wu and Chen (2005). Perceived website usability was assessed by five items modified from Loonam and O'Loughlin (2008) and Susanto *et al.* (2013) and propensity to trust was assessed by three items adapted from Dimitriadis and Kyrezis (2008). Previous studies on internet banking and mobile banking adoption were also requested for measuring social influence, level of information, perceived compatibility and usage intention. Social influence and usage intention were evaluated by three items each modified from Wu and Chen (2005) and Cheng, Lam and Yeung (2006). The four items measuring perceived compatibility and the five items assessing the level of information about IOBs were adapted from Gounaris *et al.* (2009).

To assess website usability, participants were asked to interact with one of the five IOBs websites proposed on the list and state the name of the IOBs website chosen. Five principal French IOBs were selected: ING direct, Boursorama, Fortuneo, Monabanq and BforBank.

To make sure that the subjects have never visited the website in the past, they were first asked to indicate which of the participating websites they had visited, to eliminate the effect of prior experience with the company and its website. Once directed to an IOB website they had never visited before, subjects were instructed to assume the role of IOBs' future adopters and navigate the IOB website. After the site navigation, participants were requested to indicate their agreements on the various statements about the website usability.

Descriptive analysis

After discarding cases with incomplete and/or rushed responses, 239 surveys were used for analysis.

Sample demographics are depicted in Table III. The survey was administered to an equal number of females (49.8 percent) and males (50.2 percent). Most of the respondents varied in age between 18 and 65 with the highest participants (47.3 percent) being between 35 and 49. The majority of respondents were well-educated, with 35.5 percent graduates and 27.6 percent of post-graduates. Participants were 100 percent aware of internet online banking. A large percentage of respondents (40 percent) preferred ATMs as their preferred method of transaction followed by 35 percent for online banking. Based on the data collected, it seems like online banking is gaining more importance for consumers.

Reliability and validity tests

A structural equation modeling (Hair *et al.*, 1995) using Amos 18 package was applied to analyze the hypothesized relationships in our research model, and the reliability and

Characteristics	Respondents Frequency	Valid %
Gender		
Male	120	50.2
Female	119	49.8
Age (years)		
18–24	23	8.8
25–34	65	27.2
35–49	113	47.3
50–65	22	9.2
65 or more	18	7.5
Educational qualification		
Elementary	15	6.27
Undergraduate	20	8.36
Professional	53	22.17
Graduate	85	35.56
Postgraduate	66	27.61
Preferred methods of performing banking transactions		
ATMs	97	40.59
Visit bank	48	20.83
Telephone	10	4.18
Online banking services	84	35.1
Knowledge of internet-only bank		
Yes	239	100
No	0	0

Table III. Characteristics of the sample

validity of measures for the model constructs were evaluated. Cronbach's α statistic was calculated. As shown in Table IV, all reliability measures were well above the recommended level (0.7), as recommended by Nunnally (1978). Convergent validity was established with the square root of the AVE for each construct being greater than 0.5 and discriminant validity was established by finding that the correlations between the constructs were all lower than AVE (Hair *et al.*, 1995). The items factor loading and the AVE of each construct exceeded the acceptable cut-off of 0.5. Therefore, convergent validity for all constructs was established. Table V shows that the AVE of the individual variables is higher than the shared variances between the variables, thus confirming discriminant validity.

Constructs	Items	Loading	Cronbach's α	Convergent validity	AVE
Usage intention	UI1	0.842			
	UI2	0.914	0.875	0.85	0.801
	UI3	0.928			
Social influence	SN1	0.875	0.801	0.894	0.721
	SN2	0.873			
	SN3	0.803			
Propensity to trust	PT1	0.780			
	PT2	0.905	0.819	0.74	0.741
	PT3	0.892			
Level of customer information about IOBs	LI1	0.944			
	LI2	0.864	0.906	0.84	0.753
	LI3	0.783			
	LI4	0.831			
	LI5	0.910			
Initial trust	IT1	0.736			
	IT2	0.814	0.843	0.77	0.566
	IT3	0.799			
	IT4	0.797			
	IT5	0.742			
	IT6	0.609			
Compatibility	COM1	0.901			
	COM2	0.884	0.880	0.67	0.747
	COM3	0.808			
	COM4	0.855			
Perceived usability	PQ1	0.880			
	PQ2	0.931	0.936	0.81	0.796
	PQ3	0.925			
	PQ4	0.906			
	PQ5	0.817			

Table IV. Psychometric properties of the constructs

Construct	SI	WU	COM	PT	LI	IT	UI
SI	*0.89*						
WU	0.273	*0.81*					
COM	0.252	0.247	*0.67*				
PT	0.159	0.146	0.147	*0.74*			
LI	−0.06	0.105	−0.09	0.010	*0.84*		
IT	0.274	0.298	0.238	0.167	0.058	*0.77*	
UI	0.218	0.329	0.191	0.132	0.054	0.234	*0.85*

Notes: SI, social influence; WU, website usability; Com, compatibility; PT, propensity to trust; LI, level of information; IT, initial trust; UI, usage intention

Table V. Discriminant validity of constructs

Results

Results for the proposed conceptual model revealed that the research model fits the data. The model's key statistics are good and acceptable since the CMIN/DDL = 1.32; GFI = 0.893; AGFI = 0.856; CFI = 0.978; NFI = 0.916; TLI = 0.972; RMSEA = 0.037 (0.027; 0.046); SRMR = 0.041. The standardized path coefficients (β) and corresponding *t*-values were examined to test the significance and strength of the relationship between the dependent and independent variables. As shown in Table VI and Figure 2, results provide evidence that all of the proposed hypotheses were statistically significant. The model explained about 71.6 percent of the variance in initial trust and 52.2 percent of the variance in usage intention. As expected, initial trust had a significant and strong impact ($\beta = 0.724$; $t = 8.030$) on usage intention. It has also been supported that propensity to trust ($\beta = 0.113$; $t = 2.239$), website usability ($\beta = 0.299$; $t = 4.477$), level of customer information about IOBs ($\beta = 0.189$; $t = 2.976$), perceived compatibility ($\beta = 0.303$; $t = 3.748$) and social influence ($\beta = 0.313$; $t = 4.233$) influence French consumer's initial trust in IOBs.

Table VI. Assessment of the structural model

Hypothesis no.	Hypothesis path	Parameter estimate (β)	*t*-value	*p*-value	Results
H1	PT → IT	0.113	2.239	0.025**	Supported
H2	WU → IT	0.299	4.477	0.000**	Supported
H3	SI → IT	0.313	4.233	0.000***	Supported
H4	LI → IT	0.189	2.976	0.003**	Supported
H5	COM → IT	0.303	3.748	0.000**	Supported
H6	IT → UI	0.724	8.030	0.000**	Supported

Notes: SI, social influence; WU, website usability; COM, compatibility; PT, propensity to trust; LI, level of information; IT, initial trust; UI, usage intention. **$p < 0.05$; ***$p < 0.001$

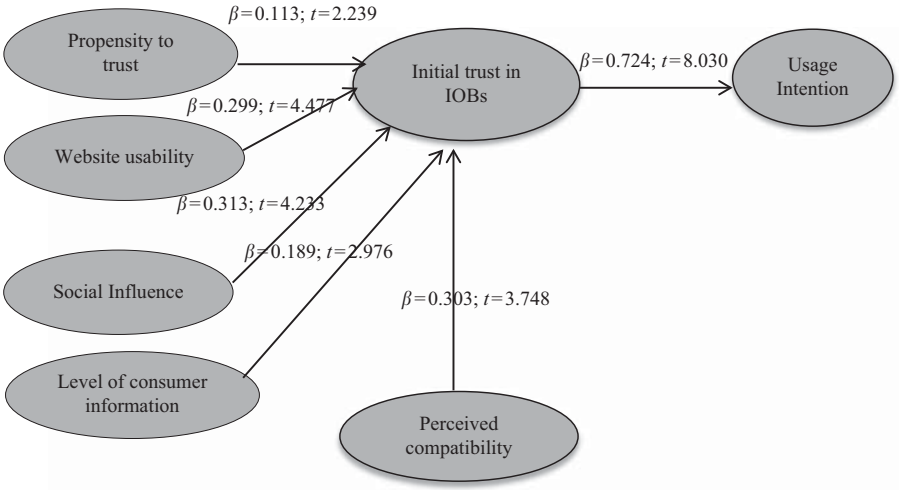

Figure 2. The result of structural

Notes: CMIN/DDL=1.32; GFI=0.893; AGFI=0.856; CFI=0.978; NFI=0.916; TLI=0.972; RMSEA=0.037 (0.027; 0.046); SRMR=0.041

Discussion and implications

Findings confirm the effect of initial trust on consumer's intention to use IOBs services (Kaabachi *et al.*, 2017) and showed that social influence, compatibility and website usability are the best contributors of initial trust formation in IOBs. In addition, results show that the level of consumer information about IOB's features and propensity to trust have moderate an impact on consumer's initial trust.

Findings showed that social influence emerged as the best predictor of initial trust in IOBs ($\beta = 0.313$; $t = 4.233$). This is in line with previous research showing that in the absence of first-hand experience or any knowledge about a brand or an e-vendor, consumers intend to rely on social influence to build their trust (Li *et al.*, 2008). This implies that IOBs should employ WOM communication to promote their website and services trustworthiness to potential consumers. Bank managers should take reference groups into account when promoting IOBs usage. For instance, positive testimonials on the website should be added. Literature on DOI has emphasized the importance of messages, communication channels and flow of leaders' opinions as means to foster the diffusion of a new product (Rogers, 2003). Thus, word of mouth influences customer knowledge, expectations, attitudes, behavioral intentions and ultimately behavior (Katz and Lazarsfeld, 1966; Daugherty and Hoffman, 2014). This influence is especially important with intangible products that are difficult to evaluate prior to consumption like banking services. Many researchers have shown that word of mouth is one of the most influential sources of information about products and services (Lee and Youn, 2009; Jalilvand and Samiei, 2012). In a competitive environment, where the key variable is the offered interest rate, IOBs should ensure a positive customer experience to retain customers and attract new clients through positive word of mouth. Boursorama's (2015) study highlighted that consumers' satisfactory experience with IOBs leads to a powerful word-of-mouth effect with a 91 percent recommendation rate. Using social media is considered as the best way to easily and effectively interact with banking clients and ask them for providing their feedback and sharing their experience. It has been proved that the use of social network application (SNSs like Facebook, YouTube, Twitter and corporate blogs) is recommended in signaling the trustworthiness of unfamiliar e-tailors (Brengman and Karimov, 2012).

Perceived compatibility is the second most important factor influencing initial trust in IOBs ($\beta = 0.303$; $t = 3.748$). Our results indicate that when consumers perceive IOBs as having a good fit with their needs and lifestyles, they will be more confident to adopt the service. This result contradicts Aljaafreh's (2016) study that rejects the effect of perceived compatibility on IOBs' initial trust in the Jordanian context. In fact in order to attract more users, banks need to demonstrate the usefulness of their services and focus on the way it fulfills customers' banking needs. During initial service encounters, employees should demonstrate their responsiveness, particularly their ability to understand customer needs and requirements. Perceiving a service provider as able to understand customers will generate a positive image about the employees' ability to provide client-specific solutions and to pursue consumer interests. Geigenmüller and Greschuchna (2011) demonstrated that customer's understanding exerts a substantial influence on service provider trustworthiness. Personalization increases perceptions of utility and ease of use, making the delivery of e-banking services more efficient and effective (Wang *et al.*, 2017). It also influences the development of trusting beliefs toward an unfamiliar e-retailer (Chen and Barnes, 2007; Wu *et al.*, 2011; Koufaris and Hampton-Sosa, 2004). Thus, IOBs should offer a more customized experience to their clients and develop new products and services adapted to consumer's banking needs and habits.

Furthermore, findings showed the role of website usability in influencing consumers' trust ($\beta = 0.299$; $t = 4.477$). As the website is a IOBs' primary interface to the customer and a strong cue to build its trustworthiness, it is essential to provide a user-friendly website. IOBs

must ensure an effective navigation for both inexperienced and experienced users. Website usability is a very important tool that influences consumers' trust (Palmer, 2002). Consumers will feel more in control and thus more empowered (Hampton-Sosa and Koufaris, 2005). Website usability appears to play an important role in e-commerce and in the e-banking system (Zhou, 2014; Akhlaq and Ahmed, 2013). Indeed, consumers will feel that the bank is delivering what it promised. This result confirm our previous research indicating the strong effect of website quality on IOBs' initial trust building (Kaabachi *et al.*, 2017).

Obviously, consumer's initial trust toward IOBs depends on their disposition to trust others ($\beta = 0.113$; $t = 2.239$). Despite expectations, trust propensity was the least influential variable. This may be because new web users still consider online banking as a very risky activity. In fact, when a transaction is done at a bank with which the customer had no prior experience, they might ignore their general tendencies to trust others and will perhaps rely on extrinsic cues to establish their initial trusting beliefs about IOBs. The effect of trust propensity on initial trust might be indirect rather than direct. Consumers with high trust propensity, regardless of risks, tend to be more positive and accepting of things at first sight (Graziano and Tobin, 2002). Thus, it is expected that consumers with high level of disposition to trust will be more sensitive to WOM and receptive to advertising campaigns. In addition, they might also develop positive attitudes toward IOBs services that will be perceived as useful, compatible with their needs and ease of use. In fact, the effect of propensity to trust on trust formation will be prominent when customers become familiar with an IOB website and have formed their initial trust beliefs. A longitudinal research should be conducted to clarify the relationship between trust propensity and initial trust.

This research stated that the amount of information that consumers have about IOBs influences moderately their initial trust ($\beta = 0.189$; $t = 2.976$). This result is in accordance with studies highlighting the significant role of information content in signaling the trustworthiness of an online merchant (Cyr, 2008; Ganguly *et al.*, 2009; Gao *et al.*, 2010; Karimov *et al.*, 2011). In addition, it confirms previous findings about the impact of consumer's familiarity with online banking services on consumer's initial trust toward IOBs. To explain the weak effect of level of consumer's information about IOBs on initial trust, we conducted a descriptive analysis. The result presented in Table VII reveals that French consumers have lower levels of information about IOBs attributes, benefits and use. It appears that 8.4 percent of respondents are totally informed about the benefits of IOBs, approximately 50.6 percent of respondents are informed about the range of products and services provided by IOBs, 10.9 percent are found to be aware about usage of IOBs and only 9.2 percent indicate they are informed about security and privacy issues. Thus, IOBs should implement an educational marketing campaign to support potential adopters who need to be reassured about the system's reliability and security. An informational campaign should be used to enhance consumer's knowledge about IOBs products and services offerings, usefulness and ease of use. Consumers should be aware of banks procedures on how privacy, security problems and the risks associated with certain behaviors in the use of an

Table VII. Awareness of the IOBs features

Statement	Totally informed (%)	Informed (%)	Neutral (%)	Not informed (%)	Not at all informed (%)
I believe to be […] *about*					
The range of products and services offered by IOBs	8.4	20.1	28.5	36.4	6.7
The benefits of IOBs	15.9	34.7	7.1	38.9	3.3
Using of IOBs	7.1	3.8	14.2	35.6	38.9
Security and privacy issues	1.7	7.5	10.9	37.2	42.7

e-banking system are being handled (Fonseca, 2014). By providing consumers with more information, the bank can be perceived as being able to fulfill consumer's promises. IOBs are encouraged to develop a favorable positive image by investing heavily in their website information design. The IOB website should be useful and become a reliable source of information for new customers. IOBs need to promote their brands through aggressive communication campaigns that specifically target non-adopters. Prior research emphasizes the specific role of communication during the initial stages of a service relationship (Parasuraman *et al.*, 1985; Rogers, 2003). Many studies have highlighted that advertising contributes to the creation of brand awareness (Romaniuk *et al.*, 2004; Alhaddad, 2015). According to Yousafzai *et al.* (2005), the brand stands as a symbol of quality and assurance in the online environment. A well-known brand reduces the risk for consumers when they transact with an e-vendor (Cao and Gruca, 2004). Thus, brand awareness is an important factor for new customers to initialize online trust (Lowry *et al.*, 2008; Chang and Chen, 2008). Tran and Corner (2016) showed that mass media have positive effects on mobile banking perceived credibility.

In addition, as ambassadors of their firms, employees play a vital role in initiating customer relationship. The trust literature proved the significant influence of individual employee communication on perceived trustworthiness (Anderson and Narus, 1990; Geigenmüller and Greschuchna, 2011). Thus, IOBs should encourage their employees to develop an interactive relationship with new consumers by ensuring high-quality information and transaction support. The use of instant messaging, e-mail links, videoconferences and chat rooms reduces perceived risk and enhances consumer's trust toward an unfamiliar e-retailer.

Findings highlight that consumers' initial trust has a positive effect on consumer's intention to use IOBs ($\beta = 0.724$; $t = 8.030$). This finding is in line with several previous research works showing that trust affects strongly the consumers' initial and continued use of internet banking service (Kaabachi *et al.*, 2017; Aljaafreh, 2016; Dimitriadis and Kyrezis, 2008; Yousafzai *et al.*, 2009; Yu and Asgarkhani, 2015). IOBs need to attract new consumers and encourage them to initiate a relationship in order to establish trust. Results show that it can be achieved by increasing consumer's awareness about IOBs services with a focus on their relative advantage, ease of use and compatibility with consumer's needs and lifestyle. It is also important to ensure that consumers have a clear understanding of security policies and statements. IOBs should pay attention to the website quality and encourage WOM since social influence has emerged as the best predictor of initial trust in IOBs.

In summary, this study extends previous research investigating IOBs' initial trust building in the French context (Kaabachi *et al.*, 2017), and highlights the variables on which IOBs should emphasize on to develop the right strategies to increase French customer's willingness to trust their services. Global IOBs' initial trust formation model in France should depend on five trust cues: individual cues, knowledge cues, institutional cues, cognitive cues and environment or social cues (Figure 3).

Limitations and directions for future research

Despite the interesting findings of the present study, it has some limitations. The first limitation of the empirical study is the use of convenient sample rather than a random one. Results should not be generalized to the whole French population. Thus, subsequent research is needed to assess the generalizability of these findings to French consumers at large. The respondents selected in this study were non-users of IOBs with some experience with internet banking services (have to be internet banking users from bricks and mortar banks). The examination of the demographic profile of the respondents shown in Table III revealed that the large cohort of our sample is the 35–49 age group, while the others consumer segments are underrepresented. This can be justified by the fact that the

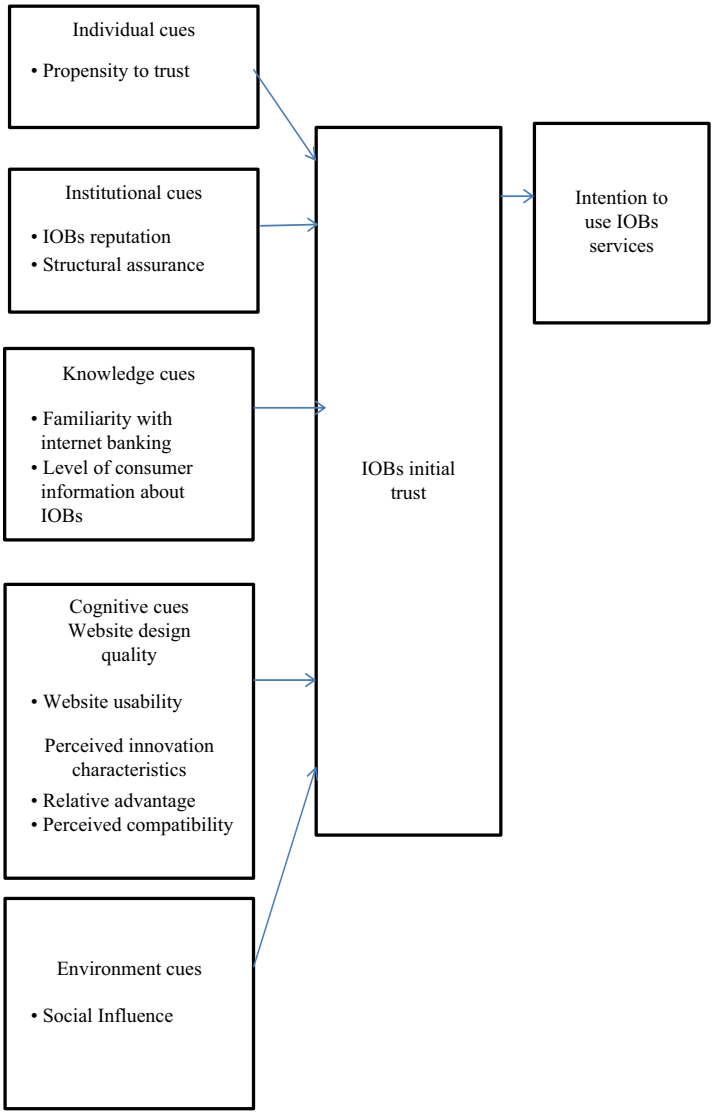

Figure 3.
Global IOBs' initial trust formation model

35–49 year old consumers have the broadest usage of online banking services. Our descriptive analyses (Table III) highlighted that among the 35–49 age group, online banking is the preferred method of performing banking transactions (56 percent), followed by 41.5 percent for ATMs (Table III). This is also in accordance with French online banking market studies that have established that the 25–39 and the 40–54 year old segments are heavy users of online banking services, while the 15–24 and 55–64 year old consumers are among the lowest users (Simon-Kucher & Partners-Audirap, 2014; Simon-Kucher & Partners, 2015). Nevertheless, the over-representation of the 35–49 year old consumers on the selected sample implies that our results should be interpreted cautiously and may not be generalized to all consumers groups. Heavy access among both the 35–49 year old segment

reflects their increasing financial responsibilities and their familiarity with managing accounts online. These consumers have advanced computer skills and are both digitally and financially savvy which justify why website usability, social influence and compatibility strongly influence their initial trust in IOBs and their intention to use it. Consumers who have more ability to use banking technologies and computer software for managing money than others might more easily adopt IOBs. Their ability might improve their efficiency in the use of IOBs since they might invest less time to learn the usage of IOBs services that would affect their attitude toward IOBs usage.

Both researchers and IOB managers should pay attention to individual differences, including socio-demographic characteristics (age, gender, educational level or income level), technology readiness, computer skills, and preference for personal contact, when they develop their strategy since these factors determine new technology adoption and the probability of internet banking adoption (Grabner-Kräuter and Breitenecker, 2010; Yousafzai and Yani-de-Soriano, 2012; McKechnie *et al.*, 2006). Many studies have established a negative relationship between age and new technology acceptance (Karjaluoto *et al.*, 2002). Older individuals have limited experience using computers and the internet, and many do not choose IOB technology because of the associated difficulty and risk.

According to eMarketer's (2017) study, 88.5 percent of French internet users aged 18–34 year old and, nearly, 61 percent of seniors 65 and older were expected to use digital banking in 2018. It also recommended that researchers should understand in depth the characteristics of the target market in order to build an effective strategy and enhance their trust toward IOBs. On one the hand, to attract older consumers, IOBs should focus mainly on the website design to ensure a smooth and easy to use navigation, secure banking transactions and more interactivity by integrating human assistance and support. On the other hand, to appeal to millennials, IOBs should emphasize on their relative competitive advantage and the compatibility of their services with millennial lifestyles. Their communication strategy should focus on providing competitive prices, loyalty programs, discounts and an enjoyable customer digital experience through customization as well as many value added services that facilitate consumers' financial lives like personal financial management tools.

In this study, the assessment of website usability has certain limitations. First, we used websites of well-known French IOBs. This can distort research findings since respondents should interact with unfamiliar IOBs brands on which they have no prior information. To overcome this bias, further studies should design hypothetical IOBs' websites and ask respondents to evaluate their usability. Second, while this study uses a simplistic approach to assess website usability, future research should use a more accurate and reliable evaluation method by providing a more detailed and complete usability criteria or checklist derived, for instance, from the Nielsen's ten heuristics for user interface design and evaluation. Third, a comparative analysis of the usability of the main French IOBs websites is useful for both researchers and managers. Further studies should pay attention to that issue.

Another limitation consists in the fact that the sample in this study is highly educated since it consists essentially MBA students. Several studies found that consumers who were most likely to purchase financial services over the internet were younger, better-educated males from higher social classes with the highest incomes and greatest use of IT (Devlin and Yeung, 2003). Research has shown that more educated individuals may require less training in response to technological change (Bartel and Sicherman, 1998). Howcroft and Hamilton (2005) revealed also that people who are highly educated are likely to demonstrate confidence when using financial services. Consequently, well-educated individuals will respond more quickly than less-educated individuals when IOBs are introduced and will be confident in using their services. They might be willing to take the time to learn how to use

IOB website because they have the skills to acquire the knowledge quicker. This implies that researchers should extend and test our conceptual model to less-educated sample. IOBs managers should develop the website information content based on the customer educational level. The information content must be well organized, clear and easy to understand. Effective transaction support (online assistance, help function and FAQ) must be provided to provide less-educated consumers with IOBs services, usability and benefits. Future research should explore different educational levels and their relationship with IOBs trust. In addition, studies should explore how less-educated customers can be more sensitive to social influence when they intend to interact with IOBs.

This study focuses on IOBs usage in France, since culture dimensions influence initial trust formation (Aljaafreh, 2016); therefore, a comparative study with other countries and cultures may be useful and interesting. In addition, some of the limitations of this research consist in the fact that initial trust was conceptualized as a unidimensional construct, while some studies have considered initial trust beliefs as a multidimensional concept including ability, benevolence and integrity dimensions. Further research should explore the effect of all the variables used in our two studies on the three trust belief dimensions. While the focus of this research is the intention to use IOBs as a unique consequence of initial trust, other dependents variables such as perceived risk, WOM intention, consumer involvement and perceived value should be incorporated in the model and considered for future studies. While our initial trust formation model study has explored IOBs, the same model should be applied in other contexts since the French internet banking sector is becoming more competitive with the entrance of non-banks such as fin-tech start-up and mobile banks such as orange Bank. In addition, the variables used in the current study were not exhaustive and future studies could further extend the model tested by including other factors such as perceived complexity, trialability, observability, perceived usefulness, attitude and perceived behavior control. The same model should consider cultural differences and include Hofstede's cultural dimensions by integrating uncertainty avoidance, power distance, individualism vs collectivism, masculinity vs femininity and long-term orientation vs short-term orientation. Rogers (2003) defined the innovation decision process to include four stages namely knowledge, persuasion, decision and confirmation. We mainly focus on the formation of trust at the knowledge stage. Researchers can conduct longitudinal studies in the future to examine how trust forms through the other process phases.

References

Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behavior*, Prentice Hall, Englewood Cliffs, NJ.

Akhlaq, A. and Ahmed, E. (2013), "The effect of motivation on trust in the acceptance of internet banking in a low income country", *International Journal of Bank Marketing*, Vol. 31 No. 2, pp. 115-125.

Al-Ajam, A.S. and Khalil, M.N. (2013), "Internet banking adoption: integrating technology acceptance model and trust", *European Journal of Business and Management*, Vol. 5, pp. 207-215.

Al-Ajam, A. and Nor, K.M. (2013), "Evaluation of internet banking service adoption among Yemeni customers", *Kuwait Chapter of Arabian Journal of Business and Management Review*, Vol. 2 No. 6, pp. 39-48, doi: 10.12816/0001207.

Alhaddad, A.A. (2015), "The effect of advertising awareness on brand equity in social media", *International Journal of e-Education, e-Business, e-Management and e-Learning*, Vol. 5 No. 2, pp. 73-84.

Aljaafreh, A.O. (2016), "An investigation of factors affecting initial trust in internet banking services in Jordan", available at: https://opus.lib.uts.edu.au/bitstream/10453/44179/2/02whole

Al-Somali, S.A., Gholami, R. and Clegg, B. (2009), "An investigation into the acceptance of online banking in Saudi Arabia", *Technovation*, Vol. 29 No. 2, pp. 130-141, doi: 10.1016/j.technovation.2008.07.004.

Anderson, J.C. and Narus, J.A. (1990), "A model of distributor firm and manufacturing firm working partnerships", *Journal of Marketing*, Vol. 54 No. 1, pp. 42-58, doi: 10.1177/002224299005400103.

Bartel, A.P. and Sicherman, N. (1998), "Technological change and the skill acquisition of young workers", *Journal of Labor Economics*, Vol. 16 No. 4, pp. 718-755, doi: 10.1086/209904.

Bhattacherjee, A. (2002), "Individual trust in online firms: scale development and initial test", *Journal of Management Accounting Research*, Vol. 19 No. 1, pp. 211-241.

Bigley, G.A. and Pearce, J.L. (1998), "Straining for shared meaning in organization science: problems of trust and distrust", *Academy of Management Review*, Vol. 23 No. 3, pp. 405-421, doi: 10.5465/amr.1998.926618.

Boursorama (2015), "Boursorama, the most recommended bank in France according to Boston Consulting Group's Brand Advocacy Index", Boulogne-Billancourt, Paris, September 10, available at: http://groupe.boursorama.fr/static-0123/cache/attachment/file/boursorama-the-most-recommended-bank-infrance.1199268460.pdf (accessed February 20, 2016).

Brengman, M. and Karimov, F.P. (2012), "The effect of web communities on consumers' initial trust in B2C e-commerce websites", *Management Research Review*, Vol. 35 No. 9, pp. 791-817.

Cao, Y. and Gruca, T. (2004), "The influence of pre and post-purchase service on prices in the online book market", *Journal of Interactive Marketing*, Vol. 18 No. 4, pp. 51-62.

Chang, H.H. and Chen, S.W. (2008), "The impact of online store environment cues on purchase intention: trust and perceived risk as a mediator", *Online Information Review*, Vol. 32 No. 6, pp. 818-841.

Chaouli, W., Ben Yahia, I. and Souiden, N. (2016), "The interplay of counter-conformity motivation, social influence, and trust in customers' intention to adopt Internet banking services: the case of an emerging country", *Journal of Retailing and Consumer Services*, Vol. 28, January, pp. 209-218.

Chen, J. and Dibb, S. (2010), "Consumer trust in the online retail context: exploring the antecedents and consequences", *Psychology & Marketing*, Vol. 27 No. 4, pp. 323-346.

Chen, Y.-H. and Barnes, S. (2007), "Initial trust and online buyer behavior", *Industrial Management & Data Systems*, Vol. 107 No. 1, pp. 21-36.

Cheng, T.C.E., Lam, D.Y.C. and Yeung, C.L. (2006), "Adoption of internet banking: an empirical study in Hong Kong", *Decision Support System*, Vol. 42, pp. 1558-1572.

Chiu, J.L., Bool, N.C. and Chiu, C.L. (2017), "Challenges and factors influencing initial trust and behavioral intention to use mobile banking services in the Philippines", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 11 No. 2, pp. 246-278.

Currall, S.C. and Judge, T.A. (1995), "Measuring trust between organizational boundary role persons", *Organizational Behavior and Human Decision Processes*, Vol. 64 No. 2, pp. 151-170, doi: 10.1006/obhd.1995.1097.

Cyr, D. (2008), "Modeling website design across cultures: relationships to trust, satisfaction, and e-loyalty", *Journal of Management Information Systems*, Vol. 24 No. 4, pp. 47-72, doi: 10.2753/mis0742-1222240402.

Daugherty, T. and Hoffman, E. (2014), "eWOM and the importance of capturing consumer attention within social media", *Journal of Marketing Communications*, Vol. 20 Nos 1/2, pp. 82-102.

Davis, F.D. (1989), "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS Quarterly*, Vol. 13 No. 3, pp. 319-339.

Devlin, J.F. and Yeung, M. (2003), "Insights into customer motivations for switching to internet banking", *The International Review of Retail, Distribution & Consumer Research*, Vol. 13 No. 4, pp. 375-392.

de Ruyter, K., Wetzels, M. and Kleijnen, M. (2001), "Customer adoption of e-service: an experimental study", *International Journal of Service Industry Management*, Vol. 12 No. 2, pp. 184-207.

Dimitriadis, S. and Kyrezis, N. (2008), "Does trust in the bank build trust in its technology-based channels?", *Journal of Financial Services Marketing*, Vol. 13 No. 1, pp. 28-38.

Dimitriadis, S. and Kyrezis, N. (2010), "Linking trust to use intention for technology-enabled bank channels: the role of trusting intentions", *Psychology and Marketing*, Vol. 27, pp. 799-820.

Dwyer, F.R., Schurr, P.H. and Oh, S. (1987), "Developing buyer seller relationships", *Journal of Marketing*, Vol. 51 No. 2, pp. 11-27, doi: 10.2307/1251126.

eMarketer (2017), available at: www.emarketer.com/Article/Digital-Banking-More-Widespread-France-than-US/1015816

EY's Global Consumer Banking Survey (2016), "Customer trust: without it, you're just another bank", 18pp, available at: www.ey.com/gl/en/industries/financial-services/banking—capital-markets/ey-trust-without-it-youre-just-another-bank (accessed September 23, 2017).

Fonseca, J.R.S. (2014), "e-banking culture: a comparison of EU27 countries and Portuguese case in the EU27 retail banking context", *Journal of Retailing and Consumer Services*, Vol. 21, pp. 708-716.

Ganguly, K., Upadhyay, S., Irmler, M., Takenaka, S., Pukelsheim, K., Beckers, J. and Stoeger, T. (2009), "Pathway focused protein profiling indicates differential function for IL-1B, -18 and VEGF during initiation and resolution of lung inflammation evoked by carbon nanoparticle exposure in mice", *Particle and Fibre Toxicology*, Vol. 6 No. 1, p. 31, doi: 10.1186/1743-8977-6-31.

Gao, M., Liu, K. and Wu, Z. (2010), "Personalisation in web computing and informatics: theories, techniques, applications, and future research", *Information Systems Frontiers*, Vol. 12 No. 5, pp. 607-629, doi: 10.1007/s10796-009-9199-3.

Gefen, D. and Straub, D.W. (2004), "Consumer trust in B2C e-commerce and the importance of social presence: experiments in e-products and e-services", *Omega*, Vol. 32 No. 6, pp. 407-424.

Gefen, D., Karahanna, E. and Straub, D.W. (2003), "Trust and TAM in online shopping: an integrated model", *MIS Quarterly*, Vol. 27 No. 1, pp. 51-90, doi: 10.2307/30036519.

Geigenmüller, A. and Greschuchna, L. (2011), "How to establish trustworthiness in initial service encounters", *Journal of Marketing Theory and Practice*, Vol. 19 No. 3, pp. 391-405.

Gounaris, S. and Koritos, C. (2008), "Using the extended innovation attributes framework and consumer personal characteristics as predictors of internet banking adoption", *Journal of Financial Services Marketing*, Vol. 13 No. 1, pp. 39-51, doi: 10.1057/fsm.2008.4.

Gounaris, S.P., Tzempelikos, N.A. and Chatzipanagiotou, K. (2009), "The relationships of customer-perceived value, satisfaction, loyalty and behavioral intentions", *Journal of Relationship Marketing*, Vol. 6 No. 1, pp. 63-87.

Grabner-Kraeuter, S. and Faullant, R. (2008), "Consumer acceptance of Internet banking: the influence of Internet trust", *International Journal of Bank Marketing*, Vol. 26 No. 7, pp. 483-504.

Grabner-Kräuter, S. and Breitenecker, R. (2010), "Assessing the probability of internet banking adoption", *Advances in Advertising Research*, Vol. 1, pp. 267-282.

Graziano, W.G. and Tobin, R.M. (2002), "Agreeableness: dimension of personality or social desirability artifact?", *Journal of Personality*, Vol. 70 No. 5, pp. 695-728.

Gu, Z., Wei, J. and Xu, F. (2016), "An empirical study on factors influencing consumers' initial trust in wearable commerce", *Journal of Computer Information Systems*, Vol. 56 No. 1, pp. 79-85.

Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1995), *Multivariate Data Analysis*, 3rd ed., Macmillan Publishing Company, New York, NY.

Hampton-Sosa, W. and Koufaris, M. (2005), "The effect of web site perceptions on initial trust in the owner company", *International Journal of Electronic Commerce*, Vol. 10, pp. 55-81.

Howcroft, B. and Hamilton, R. (2005), "Customer involvement and interaction in retail banking: an examination of risk and confidence in the purchase of financial products", *Journal of Services Marketing*, Vol. 21 No. 7, pp. 481-491.

Hurley, R., Gong, X. and Waqar, A. (2014), "Understanding the loss of trust in large banks", *International Journal of Bank Marketing*, Vol. 32, pp. 348-366.

Ismail, S. (2006), "Detailed review of roger's diffusion of innovations theory and educational technology related studies based on rogers' theory", *The Turkish Online Journal of Educational Technology*, Vol. 5 No. 2, pp. 14-23.

Jalilvand, M.R. and Samiei, N. (2012), "The impact of electronic word of mouth on a tourism destination choice: testing the theory of planned behavior (TPB)", *Internet Research*, Vol. 22 No. 5, pp. 591-612.

Jones, K. and Leonard, L.N.K. (2008), "Trust in consumer-to-consumer electronic commerce", *Journal of Information and Management*, Vol. 45 No. 2, pp. 88-95.

Kaabachi, S., Ben Mrad, S. and Petrescu, M. (2017), "Consumer initial trust toward internet-only banks in France", *International Journal of Bank Marketing*, Vol. 35 No. 6, pp. 903-924.

Karimov, F.P., Brengman, M. and Van Hove, L. (2011), "The effect of website design dimensions on initial trust: a synthesis of the empirical literature", *Journal of Electronic Commerce Research*, Vol. 12 No. 4, pp. 272-301.

Karjaluoto, H., Mattila, M. and Pento, T. (2002), "Factors underlying attitude formation towards online banking in Finland", *International Journal of Bank Marketing*, Vol. 20 No. 6, pp. 261-272.

Katz, E. and Lazarsfeld, P.F. (1966), *Personal Influence, the Part Played by People in the Flow of Mass Communications*, Transaction Publishers, 400pp.

Kim, G., Shin, B. and Lee, H.G. (2009), "Understanding dynamics between initial trust and usage intentions of mobile banking", *Information Systems Journal*, Vol. 19, pp. 283-311.

Kim, J.B. (2012), "An empirical study on consumer first purchase intention in online shopping: integrating initial trust and TAM", *Electronic Commerce Research*, Vol. 12 No. 2, pp. 125-150.

Kim, K.K. and Prabhakar, B. (2004), "Initial trust and the adoption of B2C e-commerce: the case of Internet banking", *Database for Advances in Information Systems*, Vol. 25, pp. 50-64.

Koufaris, M. and Hampton-Sosa, W. (2004), "The development of initial trust in an online company by new customers", *Information & Management*, Vol. 41, pp. 377-397.

Lee, M. and Youn, S. (2009), "Electronic word of mouth (eWOM) How eWOM platforms influence consumer product judgement", *International Journal of Advertising*, Vol. 28 No. 3, pp. 473-499.

Lee, Y., Kozar, K.A. and Larsen, K.R.T. (2003), "The technology acceptance model: past, present, and future", *Communications of AIS*, Vol. 12, pp. 752-780.

Li, X., Hess, T. and Valacich, J. (2006), "Using attitude and social influence to develop an extended trust model for information systems", *ACM SIGMIS Database*, Vol. 37, pp. 108-124.

Li, X., Hess, T. and Valacich, J. (2008), "Why do we trust new technology? A study of initial trust formation with organizational information systems", *The Journal of Strategic Information Systems*, Vol. 17, pp. 39-71.

Lin, J., Lu, Y., Wang, B. and Kee Wei, K. (2011), "The role of inter-channel trust transfer in establishing mobile commerce trust", *Electronic Commerce Research and Applications*, Vol. 10, pp. 615-625.

Loonam, M. and O'Loughlin, M. (2008), "Exploring e-service quality: a study of Irish online banking", *Marketing Intelligence & Planning*, Vol. 26, pp. 759-780.

Lowry, P.B., Vance, A., Moody, G., Beckman, B. and Read, A. (2008), "Explaining and predicting the impact of branding alliances and web site quality on initial consumer trust of e-commerce web sites", *Journal of Management Information Systems*, Vol. 24, pp. 199-224.

Lu, Y. and Zhou, T. (2007), "A research of consumers' initial trust in online stores in China", *Journal of Research and Practice in Information Technology*, Vol. 39, pp. 21-34.

McKechnie, S., Winklhofer, H. and Ennew, C. (2006), "Applying the technology acceptance model to the online retailing of financial services", *International Journal of Retail & Distribution Management*, Vol. 34 Nos 4/5, pp. 388-410.

McKnight, D.H. and Chervany, N.L. (2002), "What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology", *International Journal of Electronic Commerce*, Vol. 6, pp. 35-59.

McKnight, D.H., Choudhury, V. and Kacmar, C. (2002), "The impact of initial consumer trust on intentions to transact with a web site: a trust building model", *The Journal of Strategic Information Systems*, Vol. 11, pp. 297-323.

McKnight, D.H., Cummings, L.L. and Chervany, N.L. (1998), "Initial trust formation in new organizational relationships", *Academy of Management Review*, Vol. 23, pp. 473-490.

Mansumitrchai, S. and Chiu, C. (2012), "Adoption of internet banking in UAE: factors underlying adoption characteristics", *International Journal of Management and Marketing Research*, Vol. 5, pp. 103-113.

Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995), "An integrative model of organizational trust", *The Academy of Management Review*, Vol. 20, pp. 709-734.

Md Nor, K. and Pearson, J.M. (2008), "An exploratory study into the adoption of internet banking in a developing country: Malaysia", *Journal of Internet Commerce*, Vol. 7, pp. 29-73.

Meyerson, D., Weick, K.E. and Kramer, R.M. (1996), "Swift trust and temporary groups", in Kramer, R.M. and Tyler, T.R. (Eds), *Trust in Organizations: Frontiers of Theory and Research*, Sage Publications, Thousand Oaks, CA, pp. 166-195.

Montazemi, A.R. and Qahri-Saremi, H. (2015), "Factors affecting adoption of online banking: a meta-analytic structural equation modeling study", *Information & Management*, Vol. 52 No. 2, pp. 210-226.

Morgan, R. and Hunt, S. (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 No. 3, pp. 20-38.

Mullen, M.R. (1995), "Diagnosing measurement equivalence in cross-national research", *Journal of International Business Studies*, Vol. 26 No. 3, pp. 573-596.

Ndubisi, N.O. and Sinti, Q. (2006), "Consumer attitudes, system's characteristics and Internet banking adoption in Malaysia", *Management Research News*, Vol. 29, pp. 16-27.

Nguyen, L., Nguyen, D.T. and Singh, T. (2014), "Effect of trust on consumer intention to use electronic banking in Vietnam", *Proceeding of Global Business and Finance Research Conference, Melbourne, May 5–6*.

Nooteboom, B. (1996), "Trust, opportunism and governance: a process and control model", *Organization Studies*, Vol. 17 No. 6, pp. 985-1010.

Nunnally, J.C. (1978), *Psychometric Theory*, 2nd ed., McGraw-Hill Book Company, New York, NY.

OpinionWay Study for Boursorama (2014), "Simple, affordable and safe: the French are taking to online banking", Boulogne-Billancourt, Paris, July 1, available at: groupe.boursorama.fr/…/simple-affordabitialtrustinInternetBankingServicesinJordan(Doctoral dissertation).leand-safe-the-french-ar (accessed January 20, 2016).

OpinionWay Study for Fortuneo (2017), "Faire des économies sur ses frais bancaires en 2017? Une evidence pour 86% des Français", available at: https://mabanque.fortuneo.fr/datas/files/fortuneo-cp-sondage-mobilite-bancaire.pdf

Palmer, J.W. (2002), "Web site usability, design, and performance metrics", *Information Systems Research*, Vol. 13 No. 2, pp. 151-167.

Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, Vol. 49, pp. 41-50.

Pauline, W.J., van Esterik-Plasmeijer, W. and van Raaij, F. (2017), "Banking system trust, bank trust, and bank loyalty", *International Journal of Bank Marketing*, Vol. 35 No. 1, pp. 97-111.

Rogers, E.M. (2003), *Diffusion of Innovations*, 5th ed., The Free Press, IL, 210pp.

Romaniuk, J., Sharp, B., Paech, S. and Driesener, C. (2004), "Brand and advertising awareness: a replication and extension of a known empirical generalisation", *Australasian Marketing Journal*, Vol. 12 No. 3, pp. 70-80.

Sahut, J.M., Khalfallah, M. and Mutte, J.L. (2011), "Satisfaction et fidélisation aux services d'internet banking, quelle influence sur la fidélité à la banque", *Management & Avenir*, Vol. 7, pp. 260-280.

Sanchez, C.R. and Gallie, J.B. (2010), "Adoption of internet banking: evidence from France", *International Journal of Management and Marketing Research*, Vol. 3, pp. 297-323.

Shan, C. and Lu, Y.-B. (2009), "How offline-to-online trust transference affect the foundation of online banking initial trust: an empirical investigation", *2009 IITA International Conference on Services Science, Management and Engineering*, *Zhangjiajie*, *July 11–12*.

Simon-Kucher & Partners (2015), "Les banques traditionnelles face à l'évolution des banques en ligne … et demain des banques sur réseau social?", December, Paris, available at: www.lesechos.fr/16/02/2016/LesEchos/22130-135-ECH_les-banques-en-ligne-gagnent-la-confiance-des-francais.htm (accessed January 20, 2016).

Simon-Kucher & Partners-Audirap (2014), "Développement des banques en ligne", Paris, available at: www.audirep.fr/pj/Audirep_Etude_Banque_en_ligne_VF_12122014.pdf

Simon-Kucher & Partners-Research Now (2017), available at: www.lesechos.fr/30/03/2017/LesEchos/22415-131-ECH_les-banques-en-ligne-se-font-enfin-une-place-sur-le-marche.htm

Slade, E., Williams, M., Dwivedi, Y. and Piercy, N. (2016), "Exploring consumer adoption of proximity mobile payments", *Journal of Strategic Marketing*, Vol. 23, pp. 209-223.

Statistica (2016), "Online banking penetration in France", available at: www.statista.com/statistics/380840/online-banking-penetration-in-france/ (accessed January 20, 2016).

Suh, B. and Han, I. (2002), "Effect of trust on customer acceptance of internet banking", *Electronic Commerce Research and Applications*, Vol. 1, pp. 247-263.

Susanto, A., Lee, H., Zo, H. and Ciganek, A. (2013), "User acceptance of internet banking in Indonesia: initial trust formation", *Information Development*, Vol. 29, pp. 309-322.

Sztompka, P. (1999), *Trust: A Sociological Theory*, Cambridge University Press, 214pp.

Tran, H.T.T. and Corner, J.L. (2016), "The impact of communication channels on mobile banking adoption", *International Journal of Bank Marketing*, Vol. 34 No. 1, pp. 78-109.

Wakefield, R.L., Stocks, M.H. and Wilder, W.M. (2004), "The role of web site characteristics in initial trust formation", *Journal of Computer Information Systems*, Vol. 45 No. 1, pp. 94-103.

Wang, B. and Shan, C. (2013), "The effect of online-to-mobile trust transfer on the foundation of mobile banking trust", *Communications and Network*, Vol. 5 No. 1, pp. 112-115.

Wang, M., Cho, S. and Denton, T. (2017), "The impact of personalization and compatibility with past experience on e-banking usage", *International Journal of Bank Marketing*, Vol. 35 No. 1, pp. 45-55.

Wood, J.A., Boles, J. and Babin, B.J. (2008), "The formation of buyer's trust of the seller in an initial sales encounter", *The Journal of Marketing Theory and Practice*, Vol. 16 No. 1, pp. 27-39.

Wu, I.-L. and Chen, J.-L. (2005), "An extension of trust and TAM model with TPB in the initial adoption of on-line tax: an empirical study", *International Journal of Human- Computer Studies*, Vol. 62, pp. 784-808.

Wu, Y.-L., Chiu, C.-Y. and Li, C.-P. (2011), "Impact of web usability on user acceptance using tourism website", *Journal of Statistics and Management Systems*, Vol. 14, pp. 1007-1025.

Yousafzai, S. and Yani-de-Soriano, M. (2012), "Understanding customer-specific factors underpinning internet banking adoption", *International Journal of Bank Marketing*, Vol. 30 No. 1, pp. 60-81.

Yousafzai, S., Pallister, J. and Foxall, G. (2009), "Multi-dimensional role of trust in Internet banking adoption", *The Service Industries Journal*, Vol. 29, pp. 591-605.

Yousafzai, S.Y., Pallister, J.G. and Foxall, G.R. (2005), "Strategies for building and communicating trust in electronic banking: a field experiment", *Psychology and Marketing*, Vol. 22, pp. 181-201.

Yu, C.S. and Asgarkhani, M. (2015), "An investigation of trust in e-banking: evidence from Taiwan and New Zealand empirical studies", *Management Research Review*, Vol. 38, pp. 1267-1284.

Zhou, T. (2014), "An empirical examination of initial trust in mobile payment", *Wireless Personal Communications*, Vol. 77 No. 2, pp. 1519-1531.

Zhou, M. and Tian, D. (2010), " An integrated model of influential antecedents of online shopping initial trust: empirical evidence in a low-trust environment", *Journal of International Consumer Marketing*, Vol. 22, pp. 147-167.

Zikmund, W.G. (2003), *Business Research Methods*, 7th ed., Thomson/South-Wester, OK, 427pp.

Further reading

Aljaafreh, A., Al-Ani, A., Aladaileh, R. and Aljaafreh, R. (2015), "Initial trust in internet banking service in Jordan: modeling and instrument validation", *Journal of Theoretical & Applied Information Technology*, Vol. 74 No. 1, pp. 68-81, available at: www.jatit.org/volumes/Vol74No1/9Vol74No1.pdf

Bashir, I. and Madhavaiah, C. (2014), "A conceptual model in predicting internet banking adoption", *International Journal of Qualitative Research in Services*, Vol. 1 No. 4, p. 321, doi: 10.1504/ijqrs.2014.065790.

Bitter, S., Kräuter, S.G. and Breitenecker, R.J. (2014), "Customer engagement behaviour in online social networks – the Facebook perspective", *International Journal of Networking and Virtual Organisations*, Vol. 14 Nos 1/2, p. 197, doi: 10.1504/ijnvo.2014.065088.

Bloemer, J., Ruyter, K.D. and Peeters, P. (1998), "Investigating drivers of bank loyalty: the complex relationship between image, service quality and satisfaction", *International Journal of Bank Marketing*, Vol. 16 No. 7, pp. 276-286, doi: 10.1108/02652329810245984.

Bond, C. (2014), "Afraid to try an online bank? You need to read this", January 22, available at: www.huffingtonpost.com/casey-bond/afraid-to-try-an-online-banking_b_4613428.html

Cheng, C., Ma, X., Yan, X., Sun, F. and Li, L.M. (2006), "MARD: a new method to detect differential gene expression in treatment-control time courses", *Bioinformatics*, Vol. 22 No. 21, pp. 2650-2657, doi: 10.1093/bioinformatics/btl451.

Ennew, C. and Sekhon, H. (2007), "Measuring trust in financial services: the Trust Index", *Consumer Policy Review*, Vol. 17 No. 2, pp. 62-68.

Faber, J. and Fonseca, L.M. (2014), "How sample size influences research outcomes", *Dental Press Journal of Orthodontics*, Vol. 19 No. 4, pp. 27-29, doi: 10.1590/2176-9451.19.4.027-029.ebo.

Gambetta, D. (2000), "Can we trust trust?", in Gambetta, D. (Ed.), *Trust: Making and Breaking Cooperative Relations*, Chapter 13, electronic ed., Department of Sociology, University of Oxford, pp. 213-237.

Grabner-Kräuter, S. and Kaluscha, E.A. (n.d.), "Consumer trust in electronic commerce: conceptualization and classification of trust building measures", *Trust and New Technologies*, doi: 10.4337/9781848445086.00009Gr.

Katz, E. and Lazarsfeld, P.F. (1955), *Personal Influence: The Part Played by People in the Flow of Mass Communication*, Free Press, Glencoe, IL.

Salo, J. and Karjaluoto, H. (2007), "A conceptual model of trust in the online environment", *Online Information Review*, Vol. 31 No. 5, pp. 604-621.

Statista (2015), "Online banking penetration in France", available at: www.statista.com/statistics/380840/online-banking-penetration-in-france/ (accessed January 20, 2016).

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