Educational Administration: Theory and Practice
2024, 30(5), 11889-11896
ISSN: 2148-2403
https://kuey.net/

Research Article

A Study On The Impact Of Consumer Risk Perception And Innovativeness On Digital Banking Adoption In India.

Susanta Borah[1*], Dr. Mahesh L. Chaudhary[2]

[1*]Department: management Designation: phd scholar University: Gujarat National Law University, ORCID ID: https://orcid.org/0009-0008-3712-3617
[2]Assistant Professor of Management, Gujarat National Law University

***Corresponding Author:** Susanta Borah[1*]
*Department: management Designation: phd scholar University: Gujarat National Law University

Citation: Susanta Borah (2024), A study on the impact of consumer risk perception and innovativeness on digital banking adoption in India, Educational Administration: Theory and Practice, 30(5), 11889-11896
Doi: 10.53555/kuey.v30i5.5044

ARTICLE INFO

ABSTRACT

Purpose – The purpose of this paper is to analyse how consumer innovativeness can influence as a variable to positively impact digital banking adoption by reducing consumer perceived risk.

Design/methodology/approach –Structural equation modelling techniques was employed to study the impact of innovativeness and risk on digital banking adoption. The sample consists of 100 digital banking services users. Risk has been measured as a formative construct.

Findings – Results reveals consumer innovativeness as a key construct to improve digital banking adoption. Innovativeness effectively reduce consumer risk perception of using digital banking channel in the banking services context.

Practical implications – Practical guidelines are provided to bank management on how to use consumer innovativeness level as a segmentation variable to leverage migration to digital banking among actual customers who are nonusers or very rare users.

Originality/value – There is a lack of studies which connect consumer innovativeness and perceived risk in the digital banking context and specially on adoption of digital channel of banking from traditional banking avenues. Formative configuration of risk is quite an innovative approach to measure this construct.

Keywords - Risk assessment, Digital banking, Consumers

Introduction:

The banking and financial service industry across the globe has been promoting the customers to adopt electronic platforms for utilizing banking services. Banks seem to shift to digital delivery channels to provide their customers better services as well as to enhance their effectiveness and efficiency. However, the successful implementation of digital banking largely depends on the extent of how much customers are fully motivated to adopt it. In fact, over the Indian context, the adoption rate of digital banking is growing but at a very low rate especially in rural areas; and quite few studies conducted that have examined the related issues of digital banking. The Indian banking sector has undergone tremendous changes post demonetization and Government's digital India program. The purpose of this study is to understand the acceptance of digital banking channels by the existing bank customers who rely on traditional banking channels. Despite the strong evidence that many customers are well versed and rely on digital channels for banking transactions, others indicate that some customer segments may not be comfortable with these emerging digitized platforms due to certain inherent personal traits. Few studies have focused on bank customers' behavioural intention to use services through digital channel in India.

Banks have the advantage of minimizing the operation cost by migrating their existing customers to digital channels. Sarel and Marmorstein (2003) mentioned that, despite heavy investment by banks in developing online channels, many customers are inactive. Although government has taken Digital India initiative, digital banking adoption is still in the emergent stage in India, specially in rural areas. The way the products and services are packaged, proposed, delivered and consumed in the banking and finance industry is changing

due to the intervention of the internet (Sathye 1999).The developments in information technology provide efficient ways to the banking companies to serve their customers round the clock throughout the year (Hu and Liao 2011). The practical implementation of digital banking reduces the operating cost by about 20–25% and, as a result, increases the competitive edge of the banks (Olanrewaju 2018). Generally, M-banking platforms allow bank customers to carry out financial operations remotely through their mobile phones. These operations include balance inquiries, checking account history, card and cheque book ordering, loan applications, credit portfolio and securities monitoring, exchange rate and stock exchange monitoring, recharging phone accounts, bill payments and account-to-account money transfers at the national and international level (Chemingui and lallouna 2013).

Previous studies have explored online and mobile banking adoption in both developed and emerging economies (Bharti 2016; Tran and Corner 2016; Oruç and Tatar 2017; Hamidi and Safareeyeh 2019). In relation to conducting banking transactions, it was found that mobile banking did not reach a level of maturity globally and had a low adoption and diffusion rate, a few years ago especially in emerging economies (Cruz et al. 2010; Tran and Corner 2016; Hassan and Wood 2020; Shankar et al. 2020). Thus, numerous studies have explored online banking customers' intention to use mobile banking (Laforet and Li 2005; Cruz et al. 2010; Harris et al. 2016; Danyali 2018). However, few studies have addressed this phenomenon in India specifically.

This study aims to identify banking customer intention to used digital banking channels in India and influence of risk perception and innovativeness of their adoption of this form of banking. Banks provides mobile banking services (through SMS, USSD, or mobile banking applications) in India. The accelerating growth of mobile phones and broader coverage of mobile networks have made mobile banking an acceptable platform. Existing bank customers who use online banking would also prefer to use mobile banking due to the specific feature of the mobile device of being "on-the-go" and anywhere and anytime. Hence, it is essential to understand the current online banking users' intention towards mobile banking. The results of this study will provide an insight into the expectations of digital banking customers. This study will also enable banks to devise strategies to promote the adoption and improvement in customer experiences in both mobile and online banking. The study's findings can be subsequently used to promote mobile banking in both rural and urban regions in India.

Pallab Sikdar, Amresh Kumar and Munish Makkad (2015) establishes Trust, Usage Constraint, Ease of Use, Accessibility and Intention to Use are reliable andvalid factors determining internet banking adoption among customers in India. Accessibility, Usage Constraints, Intention to Use portrayed strong and significant relationship with overall customer satisfaction. Trust and Ease of Use are relatively weaker and insignificant contributors toward overall customer satisfaction.

Previous research has found the risk associated with possible losses from online banking transaction is greater than in traditional environments (Bradley and Stewart, 2002; Mukherjee and Nath, 2003; Wang et al, 2003). Moreover, it is also crucial for managers to understand the barriers to digital banking adoption in order to assign resources effectively to obtain competitive advantages and increase efficiency in the banking sector.

Recognising the key role of perceived risk in digital banking adoption, finding an operational leverage variable that could both mitigate consumer risk perception and positively influence digital banking adoption would be of keen interest to bank's management.

Literature review and hypothesis development

Numerous studies were conducted across the globe to find the contributing factors affecting the adoption of various forms of digital banking. The factors influencing customers to adopt e-banking service channels have been a topic of research in the developed world. Study of customer intentions and the adoption of digital banking have been recently the focus for scholars and practitioners worldwide, and this issue has seen a dramatic growth in the relevant literature of online banking channels. Numerous studies were conducted across the globe to find the contributing factors affecting the adoption of various forms of digital banking. The factors influencing customers to adopt e-banking service channels have been a topic of research in the developed world (Lasser et al. 2005; Kolodinsky et al. 2004; Pikkarainen et al. 2004; Karjaluoto et al. 2002; Daniel 1999; Sathye 1999; Yiu et al. 2007; Chan and Lu 2006; Suh and Han 2002). Most of the studies considered an extended technology acceptance model (TAM) to examine the factors infuencing the adoption of multiple forms of digital banking.

Accordingly, it could be argued that the biggest challenge for the success of this technology is in convincing the consumers to use it as a full alternative for traditional channels (Laukkanen, Sinkkonen, Kivijärvi, &Laukkanen, 2007). In fact, as Mobile banking is in the early stage of its implementation in Jordan, quite a few numbers of researchers (i.e. Alalwan, Dwivedi, Williams et al., 2016; Awwad and Ghadi, 2010; Khraim et al., 2011)

SECURITY

Security has always been one of the prime concerns in digital banking. According to Casaló et al. (2007) web site security, privacy and reputation have a direct and signifcant effect on customer trust and commitment in

online transactions of financial services companies. The study conducted by Musaev and Yousoof (2015) observed that banks and financial institutions need to build confidence and trust of their e-banking services in the area of data transfer, privacy, security, reliability and information quality. According to Bhatt and Bhatt (2016), security concerns were reported as one of the signifcant reasons behind customer resistance to mobile banking services. The banks/ financial institutions in interest of migrating their customers to digital banking convince their customers that their information and transaction are secure (Sharma 2011). Security and privacy have been noted to be vital aspect in the adoption of online banking (Hernandez and Mazzon 2017; Chen and Barnes 2007; Sathye 1999; Hamlet and Strube 2000; Tan and Teo 2000; Polatoglu and Ekin 2001; Black et al. 2002; Howcroft et al. 2002). The trustworthiness of the system will have a positive infuence on the behavioural intention towards the acceptance of mobile applications (Sharma et al. 2018). A study conducted by Alnsour and Al-Hyari (2011) has observed that awareness of security leads to trust and this trust has a direct impact on the usage of digital banking. Considering the above studies, the following hypothesis has been framed:

H1. There is no association between consumer's perceived risk in digital banking and digital banking usage.

INNOVATION

Dan Sarel,Howard Marmorstein (2003) observed Innovators and some early adopters exhibited strong interest and desire to adopt online banking services. Prospects that need to be converted to adopters now, however, do not fit into this 'ready and willing' category. The study indicated that most light users and future prospects could better be described as indifferent. Marketing to the indifferent consumer requires a completely different orientation. Banks need to examine the rich literature on diffusion of innovation to understand better the obstacles they are now facing. Domain-specific innovativeness aims to explicate the narrow facets of human behaviour within a person's specific interest domain. Consumer researchers have shown that innovative consumer behaviour is associated with heavy use of a product category (Dickerson and Gentry, 1983). Studies using the domain specific innovativeness scale show that fashion innovators spend more time, money and effort on new fashions than non-innovators do (Goldsmith and Flynn, 1992). Beldona et al.'s (2004) research showed that travel innovators travel more frequently than do non-innovators. Later research (Blake et al., 2003; Citrin et al., 2000; Goldsmith, 2000, 2001) has applied the domain specific innovativeness scale to online shopping and has shown a direct and positive influence of this variable both in the search for online purchase information and the decision to purchase through this channel. The study by Limayem et al. (2000) found that innovativeness influences internet shopping behavior both directly and indirectly through consumers' attitude and intentions. Goldsmith (2000) also evidenced that frequency of online buying and intent to buy online in the future were predicted by general innovativeness, online buying-specific innovativeness and Role of consumer innovativeness 57 Downloaded by University of Sussex Library At 11:48 03 July 2018 (PT) involvement with the internet. Citrin et al. (2000) supported this conclusion with their findings that domain-specific innovativeness along with internet usage directly influences consumers' internet shopping. Research by Lassar et al. (2005) evidenced that internet-specific innovativeness positively affects internet banking adoption. All these results support the relationship between innovativeness and new services adoption but, what is the rationale connecting innovativeness to new product adoption? In general, and following Hirschman (1980) innovators are novelty seekers and the desire to seek out what is new and different is conceptually indistinguishable from the willingness to adopt new products. But, as this author also points out, innovators are more creative, understanding this concept as consumption-related problem solving capability. Highly creative consumers are better able to decide whether to adopt a new product, as they need a smaller cognitive effort to comprehend the new product concept and have a higher competence to evaluate alternative products and select the superior one. We take the stance that domain-specific innovativeness plays an important role in the consumer internet banking acceptance decision and propose the hypothesis that online banking innovativeness measured by the DSI scale is positively correlated with the use of online banking services:
H2. There is no association consumer innovativeness and digital banking service usage

Literature review on new product adoption revealed several works which propose methods for distinguishing between categories of adopters (Bass, 1969; Rogers, 1962) and which try to characterize the behaviour of the individuals in the different categories (Brown, 1982; Donthu and Garcı´a, 1999; Eastlick and Lotz, 1999; Vrechopoulos et al., 2001). Rogers (1962) establishes a classification with five groups of adopters. Consumers who are the first to adopt an innovation are described as innovators and Rogers maintains that these innovators differ substantially from late adopters in terms of their socio-economic characteristics (e.g. education, social status), their communicative behaviour (e.g. social participation, knowledge of innovations, exposure to the media), but above all, their personal characteristics, which together with empathy and attitude to change, show a greater risk-taking propensity. Other studies which relate personal characteristics to innate consumer innovativeness have also found more favourable attitudes towards risk in innovator consumers next to higher levels of income and education, greater social mobility, and higher self-esteem and

opinion leadership (Gatignon and Robertson, 1991). The negative relationship between perceived risk and innovative behaviour is also supported in other studies (Bauer, 1960; Cox and Rich, 1964; Cunnigham, 1964; Ostlund, 1974). Ostlund (1974) evidenced that perceived risk is a strong predictor of the innovativeness of housewives. Research by Eastlick and Lotz (1999) focused on teleshopping evidenced that perceived risk was negatively related to the tendency to be a potential innovator. Empirical research by Nakata and Sivakumar (1996) shows that risk-taking behaviour is a typical characteristic of innovative managers. Shapira (1995) also found that executives unequivocally describe risk-prone managers as innovative. Rogers (1995) revealed that users with higher levels of personal innovativeness are more willing to cope with the uncertainty of innovative technologies. Within the context of online shopping, an individual innovative personality is related to risk-taking tendencies, since an innovative behaviour such as online banking use involves unavoidable risk and uncertainty (Gerrard and Cunningham, 2003; Hewer and Howcroft, 1999; Kassim and Abdulla, 2006; Polatoglu and Etkin, 2001). Specifically, online banking users cannot ensure the degree of service quality when they make a financial transaction. Online shopping is thus more prone to be welcomed and adopted by highly innovative shoppers, who have high levels of self-confidence about their online purchase behaviors (Limayem et al., 2000; Thatcher and Perrewe´, 2002). Recent research also indicated that travellers' risk-taking tendencies are significantly related to their innate personal innovativeness (Beldona et al., 2004; Christou et al., 2004; Klein et al., 2004; Nysveen, 2003; Sigala, 2004). Online travellers with higher personal innovativeness are more willing to take risks and purchase travel products and services online earlier than less innovative travellers (Beldona et al., 2004; Lee et al., 2007). In general, online banking users undergo a certain degree of uncertainty when they choose internet as a distribution channel because of the complexity of financial services linked to the physical separation between the bank advisor and the consumer (Flavia´n et al., 2005; Howcroft et al., 2007). However, not all banking customers have the same risk-taking capacity and risk tolerance level when they perform financial transactions online. Based on the literature review, we hypothesize that innovative consumers towards online banking will be less risk-averse than non-innovative online banking users.

H3. There is no association between consumer innovativeness and digital banking risk perception

Method

Data collection:

The research instrument employed to obtain the information was a survey based on a questionnaire with close-ended questions. These respondents resembled the target sample to be surveyed. According to previous research, online surveys offer great advantages over traditional mail surveys, such as lower costs and faster responses and wider geographic reach (e.g. Green et al., 2003; Illieva et al., 2002; Schuldt and Totten, 1994). In this study, final questionnaires were delivered to and collected from Bank customers both public and private banks. Interviewees answered a survey through link that wasdesigned specifically for collection of responses from participants. The sample was extracted from this population as follows.

Respondents are bank customers of 18 years of age or older who have use digital Banking channels. A total of 200 account holders were contacted during the survey; 133 agreed to participate. Of the questionnaires received, 100 (75.1 percent) were analyzed. The fieldwork was done in August-September 2023. Table I shows the profile of respondents. The total sample is composed of 60 percent men and 40 percent women. Major percentage of the sample is of age group of 18 years to 30 years i.e. 34 percent followed by 31 to 40 years which is 25 percent. In education graduate an above consists of majority i.e. 33 percent. In occupation majority of respondents are salaried (25 percent) or unemployed (26 percent). In terms of household income of respondents majority respondents are from families with annual income of 5 to 7 lakh. (26 percent)

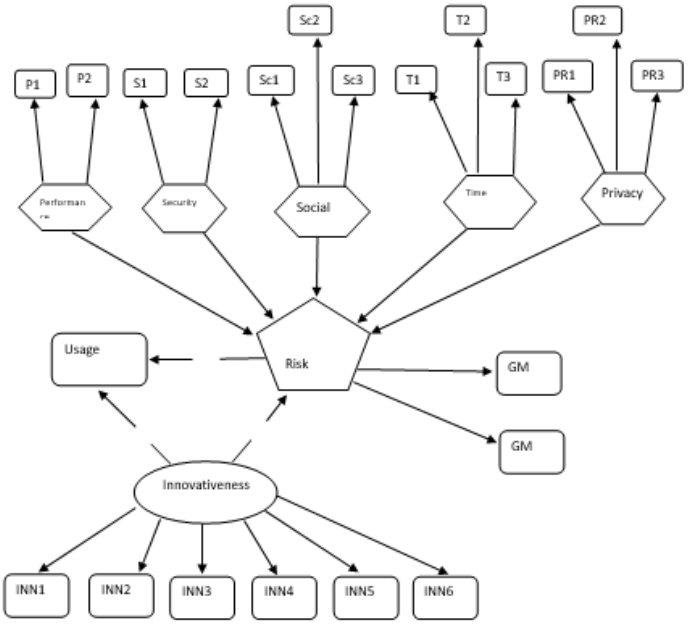

Figure 1: Conceptual model with hypothesized relationship

Table I: Demograhic sample

Characteristic	Percentage (N=100)
Gender	
Male	60
Female	40
Education	
Upto class X	19
Class XII	28
Graduate	33
Masters degree and above	20
Occupation	
student	17
Salaried	25
Unemployed	26
Self employed/ entrepreneur	20
Retired	12
Economic Status (Household earning P A)	
Up to 2.5 lakh	23
2.5 Lakh to 5 lakh	22
5 lakh to 7.5 lakh	26
7.5 lakh to 10 lakh	17
Above 10 lakh	12
Age group	
18-30	34
31-40	25
41-50	21
Above 50	20

Measures:

The constructs used in this study were adopted from previous studies and measured by multiple items 5-point Likert- type scales. Digital Banking usage among customers were measured by as by enquiring respondents about the percentage of their financial transactions carried out through digital channels of bank. To measure the innovativeness of the respondent a four item scale based on the Domain Specific Inventory developed by Goldsmith and Hofacker (1991) was implemented. The DSI scales can measure innovativeness of an individual towards a specific product field. The DSI scale which is a short reliable and valid self-report scale has been used in variety of researches and has been proved to be valid and reliable (Goldsmith, 2000:2001). Scales validated in previous studies were used to measure perceived risk dimensions (Doney and Cannon, 1997; Kumat et al, 1995; Roy et al, 2001; Littler and Melanthiou, 2006; Siguaw et al, 1998).

Risk is traditionally been measured as a reflective construct (e.g. Gonza´lez et al., 2006).To set the relation between risk construct and its dimentions, a formative operationalization model has been adopted; illustrated in Figure 1.

Since they share a common source, high intercorrelations among items are expected. On the contrarary in cases with risk perception, however these high intercorrelations may not exists necessarily. In certain situation a consumer may fear (security risk) that their data could be intercepted by unauthorized third

parties like hackers, and at the same time being confident that it is less time consuming using internet than going to the brick and mortar office in person (time loss risk). This absence of significant correlation is a specific characteristic of formative constructs (Jarvis et al., 2003). To make sure this part of the model is identified, two reflective indicators measuring global risk perception were added to the formative risk construct configuring an identified MIMIC model (Brown, 2006; Diamantopoulos and Winklhofer, 2001)

TableII: Measurement scale

Cons--truct	Dimension	Code	Statement	Source
Perceived risk	Securiry	S1	Do you worry to give credit card number or login to online banking websites	Cheung and Lee(2001); Flavian and Guinaliu and Hofacker (1191) and (2006); Janda el al (2002); Littler and Melanthiou (2006)
		S2	The data can be hacked by unauthorized user in banking websites	
	Privacy	PR1	Banking websites may provide my data to other company without my knowledge	
		PR2	Usage of online Banking exposes to receipt of spam	
		PR3	Banking websites endanger my privacy by using my personal information without my permission	
	Social	Sc1	Use of Digital Banking worsens your image among friend circle	
		Sc2	In opinion of my peer group I am doing wrong by using digital banking but not brick and mortar branches	
		Sc3	My friends and peers think I am being imprudent when I use banking websites services instead of brick and mortar branches	
	Time wastage	T1	Using digital banking is wastage of time	
		T2	Digital Banking usage requires to wait long time for transactions to be completed	
		T3	When I use digital banking I waste too much time performing online transaction	
	Performance	P1	It is very difficult to find out characteristic of digital banking	
		P2	Digital Banking donot provide the financial advantages listed on the website	
	Global Measure	GM1	Digital Banking websites cannot be trusted	
		GM2	It is very likely that digital banking operation will not meet my expectation	
Innovativeness of customer		I1	I am the first in my peer group to use digital banking services	Adapted from Goldsmith and Hofacker (1191) and (2006); Citrin et al (2000)
		I2	I am ready to trial new digital banking platforms	
		I3	Compared to my friends I seek out lot of information on digital banking channels	
		I4	I am the first to know of any new online banking services	
		I5	I would use new digital banking channel although none of my friends has used it before	
		I6	I know about new digital banking services before most other people in my circle do	
Digital banking usage		U	What percentage of your financial operations are performed digitally	

Results:

Reliability results: Perceived risk =0.98, Innovativeness= 0.95

To Analyse the hypothesis Multiple linear regression analysis was employed with 95 % confidence interval. The analysis showed a good model fit F (3.96)=202.0.P<.001, Adj R^2=0.859 and R^2 Change=0.863. The analysis shows that perceived risk has a negative effect on digital banking usage (β= -.092, t= -2.009 P<0.05). Hence, the hypothesis 1 is not accepted. The Analysis showed that Innovativeness of customer had a positive effect on usage of digital banking channels (β= 0.976, t= 21.42, P<0.05) indicating that hypothesis 2 is also not accepted.

The Analysis showed that Innovativeness of customer had a negative effect on perceived risk banking channels (β= 0.560, t= 6.69, P<0.05) indicating that hypothesis 3 is also not accepted.

Discussion and conclusion:

This paper brings in insights about customer innovativeness patterns and its contribution to adoption of digital banking platform. The research reflects integration of consumer innovativeness manner and the perceived adoption risks on digital banking services acceptance. The influence of innovativeness towards digital banking acceptance is direct and positive which agrees to similar results obtained in prior studies new technology products (Hirunyawipada and Paswan, 2006; Im et al., 2003) or online shopping (Citrin et al., 2000; Goldsmith, 2002; Limayem et al., 2000), but also on internet banking (Lassar et al., 2005, Joaquín Aldás-Manzano, Carlos Lassala-Navarré, Carla Ruiz-Mafé, Silvia Sanz-Blas, (2009) Bank management may also want to develop digital banking-related innovativeness among consumers. Ha and Stoel (2004) mentioned that innovativeness is positively related to product information enquiry in internet and that frequent information seekers are more likely to be purchasers in the future. Following that, marketers may create internet sites that facilitate and reward financial product comparison, thereby motivating them to increase the financial transactions performed through digital mode. Moore (1991) suggests innovators

provide companies with constructive feedback early in the design cycle and begin building a supporter who will influence buyers. The word of mouth promotion from innovators can influence positively on consumers to use digital banking channels for transaction.

Our results also depicts that perceived risk is a key inhibitor of digital banking use. The risk factor is divided into various dimension for the study to enable to evaluate predominance of individual dimension. This is important because it implies that while the perceived risk is posited to be multidimensional in nature, not all the dimensions are going to be salient in the digital banking services usage. This result guides to focus the efforts on dealing with the risk dimensions attending as per their level of importance (security, performance, social and privacy risks) instead of less weighted or the irrelevant one (time loss). Advertising and third-party trust-certification bodies are crucial tools in the task of raising awareness. Privacy risk should also be attended to. As Bestavros (2000) remarks, consumers are reluctant to share personal information for fear that their financial life disclosure in public. He advocated on building trust before preparing the customer profile. Avoiding forcing to fill out forms as a prerequisite for obtaining

information on the bank web site, letting the consumers know in a prominent position on the site that any data exchanged is confidential, and letting them decide how they would like to receive information are some measures towards gaining customer trust.

Focusing on trust creation makes prohibiting misuse/abuse of personal information crucial (Kleijnen et al., 2004; Nyshadham, 2000). Our results show that consumers do care about the responses from significant members of their societal network to the use of digital banking (social risk), coinciding with Hirunyawipada and Paswan (2016) in their research focused on technology

product adoption. As a final conclusion and in line with Lassar et al. (2005) we have found that, in trying to figure out acceptance of digital banking services banks need to recognize and appreciate the importance of internet-specific consumer innovation levels and characteristics. This task is crucial as it has been found that innovativeness influences positively on digital banking adoption both directly and by reducing perceived risk. Im et al.(2003) pointed out, sociodemographic variables cannot be used to identify innovative predispositions of consumers due to the nonsignificant relationship they found between innovativeness and personal characteristics, hence it is indeed a robust task to identify customer based on socio demographic variable and predict innovativeness. Part of the strength of a study lies in the acknowledgement of its limitations. As with any study, the findings reported here may be difficult to generalize beyond our specific sample. For instance, our results could differ if bank clients who have never

used internet to perform financial operations or who stopped using this channel due to lack of satisfaction, would had also been interviewed. As previous research (Sarel and Marmorstein, 2003; Shih and Fang, 2004) demonstrated, further research is needed to understand group differences for the factors influencing digital banking services adoption between pre-behaviour and post-behaviour users.

References

1. Aladwani, A.M. (2001), “Online banking: a field study of drivers, development challenges and expectations”, International Journal of Information Management, Vol. 21 No. 3, pp. 213-25.
2. Anderson, J.C. and Gerbing, D.W. (1988), “Structural equation modelling in practice: a review and recommended two-step approach”, Psychological Bulletin, Vol. 103, pp. 411-23.
3. Ba, S. (2001), “Establishing online trust through a community responsibility system”, Decision Supporting Systems, Vol. 31 No. 3, pp. 323-36.
4. Deutskens, E.C., De Ruyter, J.C. and Wetzels, M. (2006), “An assessment of equivalence between online and mail surveys in service research”, Journal of Service Research, Vol. 8 No. 4, pp. 346-55.
5. Flavia´n, C., Guinaliu, M. and Torres, E. (2005), “The influence of corporate image on consumer trust: a comparative analysis in traditional versus internet banking”, Internet Research, Vol. 15 No. 4, pp. 447-70.
6. Forsythe, S. and Shi, B. (2003), “Consumer patronage and risk perceptions in internet shopping”, Journal of Business Research, Vol. 56 No. 11, pp. 867-75.
7. Gerrard, P. and Cunningham, J.B. (2003), “The difusio´n of internet banking among Singapore consumers”, International Journal of Bank Marketing, Vol. 21 No. 1, pp. 16-28.
8. Hamid Reza Khedmatgozar, Arezoo Shahnazi. 2018. The role of dimensions of perceived risk in adoption of corporate internet banking by customers in Iran. Electronic Commerce Research 18:2, 389-412.
9. Hirunyawipada, T. and Paswan, A. (2006), “Consumer innovativeness and perceived risk: implications for high technology product adoption”, Journal of Consumer Marketing, Vol. 23 No. 4, pp. 182-98.
10. Howcroft, B., Hamilton, R. and Hewer, P. (2007), “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. 481-91.
11. INE (Spanish National Statistics Institute) (2007), “Encuesta sobre equipamiento y uso de tecnologı´as de la informacio´n y comunicacio´n en los hogares. Primer semestre 2007”, available at: www.ine.es/inebase/cgi (accessed 12 July 2007).

12. Joaquín Aldás-Manzano, Carlos Lassala-Navarré, Carla Ruiz-Mafé, Silvia Sanz-Blas, (2009) "The role of consumer innovativeness and perceived risk in online banking usage", International Journal of Bank Marketing, Vol. 27 Issue: 1, pp.53-75,
13. Kolodinsky, J.M., Hogarth, J.M. and Hilgert, M.A. (2004), "The adoption of electronic banking technologies by US consumers", International Journal of Bank Marketing, Vol. 22 No. 3, pp. 238-259.
14. Moskowitz, H.R. and Krieger, B. (2001), "Financial products: rapid, iterative and segmented development by conjoint measurement and self-authoring iterative procedures", Journal of Financial Services Marketing, Vol. 5 No. 4, pp. 343-55.
15. Mukherjee, A. and Nath, P. (2003), "A model of trust in online relationship banking", International Journal of Bank Marketing, Vol. 21 No. 1, pp. 5-15.
16. Rakhi Thakur, Mala Srivastava. 2015. A study on the impact of consumer risk perception and innovativeness on online shopping in India. International Journal of Retail & Distribution Management **43**:2, 148-166.
17. Sarel, D and Marmorstein (2003) " Marketing online banking services: the voice of the customer", Journal of financial services marketing Vol 8 No 2 pp 106-18
18. Sathye, M (1999) " Adoption of internet banking by Australian consumers and empirical investigation" International Journal of Bank Marketing. Vol 17 No 7, pp 324-24
19. SikdarPallab, Kumar Amresh and MunishMakkad (2015), "Online banking adoption A factor validation and satisfaction causation study in the context of Indian banking customers", International Journal of Bank Marketing Vol. 33 No. 6, 2015pp. 760-785
20. William James, Gladys Torres-Baumgarten, Goran Petkovic, Tetyana Havrylenko. 2009. A Psychographic Profile of Users of Internet-Related Technologies in Serbia and the Ukraine. Journal of East-West Business **15**:2, 119-140.