

## Design a New Model in Adoption of Internet Banking (B2c)

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### ABSTRACT

This study aims to investigate the effective factors on Internet Banking including convenience, accessibility, and perception of benefits. Note that the perception of benefits and security plays the most important role and indicate how useful these services are for the customers.

Similarly, a new model has been designed for Internet Banking Acceptance which is derived from some foreign models and an internal (Iran) model. This model shows a significant relationship between these factors on customer acceptance of Internet Banking. This model can also be applied for future researches with a larger sample.

The final section contains an analysis of the model, conclusions and recommendations for further research in order to promote the quality level of services effectively.

**KEYWORDS:** Internet banking, Perception of usefulness, Self- Effectiveness, Convenience, Trust, Security.

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### 1. INTRODUCTION

In banking system, doing affairs fast and save time are considered as the most important elements on success in competition among banks, and the customers as the main determining element of this competition, at first, emphasize on technology and speed and then on technical specialty of banks. Banking today needs modern methods, effective customer orientate, offering new technologies, and servicing the customer that every bank be more success in these affairs, it can absorb more resources in the competitive market, and as the result it has high productivity, and electronic banking is the only way to get this aim. Surveying the determining leads to better understanding of the beliefs of the potential users on new technologies. With regard to quality of these beliefs on users behavior, conditions can be created in which customers accept internet banking system fast.

(Mahdi and Mehrdad, 2010; Dube, et. al., 2009) In recent years, the adoption of e-banking began to occur quite extensively as a channel of distribution for financial services due to rapid advances in IT and intensive competitive banking markets [2] Lu,J.,Yu,C.S., Liu,C,E. and Yao,J. (2003) Internet Banking includes all electronic channels which provide the customers with obtaining information relating to their own accounts, transferring funds and paying accounts. These channels are: Internet, Mobile, Telephone, Digital Television, ITM (Automated Teller Machine). [3]

(Rubén Hernández-Murillo, Gerard Llobet and Roberto Fuentes, 2010 ) Bank-specific characteristics, such standard measures of financial health and bank size, are the main determinants in the adoption decision. Our results also indicate that bank membership to a holding company is an important factor in the speed of adoption. However, the fact that banks in most holding companies do not adopt simultaneously indicates that the adoption decision is taken at the bank level. [4]

(Vatanasombut et al, 2008) Recent literature on e-banking showed that the formation of trust can help reduce the impact of key inhibiting factors such as fears about using the online service among non-e-banking customers (Sarel and Mamorstein, 2003) From the banks' perspective, e-banking has enabled banks to lower operational industry that has caused the other banks to develop their various methods of banking.

### 2-The expression

According to Christopher, et.al. (2006), E banking has become an important channel to sell the products and services and is perceived to be necessity in order to stay profitable in successful. There is a growing interest in understanding the users' experience[2], as e-banking is observed to be a larger concept than user satisfaction. From this perspective, assessing the user experience is essential for many technology products and services[2](Tow Cheung, M.,Liao, Z.2002) Using web and internet technology, Internet Banking enables the customers to accomplish their financial transactions in a virtual environment. The studies conducted on customer acceptance of Internet Banking promote customer intention and perception to use Internet Banking and they also show how these attitudes and intentions influence the customer behavior to use Internet Banking. [7].

The banking industry play a significant role in supporting economic development through efficient financial services [4] )Almost all banks have invested in expanding and improving the Information Technology systems and a number of new e-banking services have been developed. At the same time, e-banking acceptance

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depends probably on bank service quality, customer preferences and satisfaction. Factor analysis results indicate that security, user friendly, queue management, accessibility, time factor and fund transfer are major factors. [3] Korgaonkar and Wolin identified the main individual needs for using the internet as social escapism, information, interactive control, and socialization and economic motivations. Concerns about security, privacy and trust as disincentives were also highlighted. [8] In recent years, developments in information technology and the resulting evolution of Internet banking have fundamentally changed the ways in which banks carry out their business and consumers conduct their everyday banking activities. [6] Internet Banking allows the customers to perform financial transactions via bank website anytime and anyplace more rapidly and cheaper in comparison with traditional banking. [8] Since the success or failure of system implementation largely depends on user acceptance of technology, much research has been carried out to Identify those critical factors that influence user acceptance, There is a need for research to identify the factors that affect consumer intention to use Internet banking services, this helps traditional banks improve their service quality and reduce their service costs as well as apply those kinds of marketing strategies which satisfy customers needs. [1]

(Mohamad Rizal Abdul Hamid, Hanudin Amin, Suddin Lada and Noren Ahmad, 2007 )The service providers must be more responsive on security issues. While there is no doubt that Internet banking transactions should have layered protection against security threats, the Internet banking service providers should approach security considerations as part of their service offerings because customers today are more concern on security. [9].

**Analysis of relations between the models**

In this considerable showed that Adoption Internet Banking factors with which of models designed, that

Model 3 Shahram Lichtenstin 2006	Model 2 Nasim Z. Hosein 2010	Model 1 Mohamad Mahmoud maymand, lotfolah forozandeh dehkordi, Mostafaahm adinejad 2009
Attention	Attention	----
Convenience	Convenience	Convenience
Accessibility	Accessibility	Accessibility
Usability	Usability	----
Self-efficacy	----	----
Risks & costs	----	----
Knowledge & Support	Knowledge & Support	----
Relative Advantage	----	----
----	Internet experience	----
----	Trust & security	Trust & security
----	----	Self-Effectiveness
----	----	Perception of usefulness
----	----	Quality internet

with attention to up figure can be understand that more factors of model of number 3 that with attention to subscriptions with model number 3, 2 different importantly factors too adoption and in final model be used and in end of too model number 1 that it a Iranian model and designed administration in Iran, 3 importantly factors with attention to that this 3 factors in foreign models don't be there are for final model at be used.

**4- Research method:**

The present research is an explanatory one based upon correlation method by the use of sample election. It is applicable from the viewpoint of goal and measurement from information gathering one. From performance method point of view, this research is scientific comparative one. This is because the real goal is regular description and real properties of a subject. It means that without any interfere of personal ideas and preferences researcher intends to Design a new model in Adoption of Internet banking (B2c). Then it has submitted different proposals based upon evaluations and conclusions of this research.

**5 -Internet banking**

(goodzinss 2008), Internet banking refers to providing electronic banking services via internet through personal computer or other internet-enabled devices. [1]

**6- Attention**

Many non-users mentioned not having known or thought about internet banking previously, nor having seen it advertised. Several non-users highlighted the usefulness of the research interviews as information sessions on internet banking. One non-user who owned a brochure business alluded to the ineffectiveness of internet banking marketing methods in which relevant materials were hidden inside standard bank mailings and subsequently discarded without having been read. Some participants remarked that they did not bank on the internet because they had not attempted it, believing it to be too complicated or of little interest – suggesting the need for banks to motivate interest, perhaps through an aggressive marketing campaign or incentives scheme [8].

3- Past Research (Background)

Result	Methods	The sample size	Society	Subject	year	scholar	Row
<i>It highlights that a consumer's willingness to use e-banking primarily depends on their perception of risk in transacting on the internet; trust of the specific e-banking website was secondary.</i>	Regression analysis	212person	Great Australian University Staff	To Trust or Not to Trust: The Consumer's Dilemma with E-banking	2009	David H. Wong, Claire Loh, Kenneth B. Yap, Randall Bak	1
<i>customers who have some level of Internet usage and some degree of Internet experience have led to an increase in the adoption of internet banking</i>	path analysis	362person	Users who did not use the Internet Banking	Internet banking: Understanding consumer adoption rates among community banks	2010	Nasim Z. Hosein	2
<i>PU, PEU and PR are the important determinants of online banking adoption.</i>	Regression analysis / Cronbach's alpha - the correlation matrix	300person	The use of Internet Banking in India	Internet Banking Adoption in an Emerging Economy: Indian Consumer's Perspective	2011	RahmathSafeena, Hema Date, Abdullah Kammani	3
<i>The introduction and growth of technology has been considered whilst acknowledging that providing a quality service is viewed as a key strategic factor in establishing competitive advantage.</i>	Questionnaire	43 banks	The use of banking services in Nairobi, Kenya	TECHNOLOGY AND SERVICE QUALITY IN THE BANKING INDUSTRY	2010	Thomas OgoroOmbati, Peterson ObaraMagutu, Stephen OnserioNyamwange, Richard BitangeNyaoga	4
<i>trust is the most important factor that influences the intention of current users of Internet banking to continue using the service, followed by compatibility and ease of use.</i>	Pearson correlation - multiple regression	210person	Internet banking users in the Klang Valley, Malaysia	Predictors of Intention To Continue Using Internet Banking Services: An Empirical Study of Current Users	2008	Huam Hon Tat, Khalil Md Nor, Eng Tzu Yang, KhorJiaHney, Lim Yik Ming, Tan Li Yong	5
<i>All six variables in this study (perceived ease of use, perceived usefulness, compatibility, trialability, trust, awareness) were found to have significant effect on IBSA</i>	CFA	565person	Four staff at the University of Jordan	Modeling the antecedents of internet banking service adoption (IBSA) in Jordan: A Structural Equation Modeling (SEM) approach	2011	Malek AL-Majali, NikKamariahNik Mat	6
<i>security, userfriendly, queue management, accessibility, time factor and fund transfer are major factors.</i>	Regression analysis / Cronbach's alpha	750person	Users of banking services 25 banks in Nigeria	E-BANKING IN DEVELOPING ECONOMY: EMPIRICAL EVIDENCE FROM NIGERIA	2010	Elisha Menson AUTA	7
<i>comparing our e-service quality model with traditional service quality models may provide more detailed insights into the field of quality perceptions.</i>	CFA ÆFA	---	-----	Measuring the quality of e-banking portals	2004	Hans H. Bauer, MaikHammerschmidt, Tomas Falk	8
<i>The service providers must be more responsive on security issues.</i>	-----	---	-----	A COMPARATIVE ANALYSIS OF INTERNET BANKING IN MALAYSIA AND THAILAND	2007	Mohamad Rizal Abdul Hamid, Hanudin Amin, SuddinLada, Noren Ahmad,	9
<i>The fact that banks in most holding companies do not adopt simultaneously indicates that the adoption decision is taken at the bank level.</i>	-----	---	-----	Strategic online-Banking Adoption	2010	Rubén Hernández-Murillo, Gerard Llobet, Roberto Fuentes	10

### **1-6- Accessibility**

“Access to computers is not the issue, but access to the internet is. We’ve all got computers at home, but not access to the internet at home.” This comment from a non-user is illustrative of non-user comments suggesting that missing or inadequate internet accessibility is a key influence on the adoption decision. Some participants with home internet connection utilized service provision with limited access hours, for cost-based reasons. They noted that this access time was used, however, for separate purposes such as finding children’s homework references. [8].

### **2-6- Self-efficacy**

Users generally expressed confidence in their ability to use the internet - a confidence acquired from multiple positive experiences and acquired familiarity with the internet channel. Moreover, self-efficacy with the internet banking application was also found motivational for some users with one non-user nominating lack of familiarity with the application as the sole rationale for non-adoption. By contrast, several non-users commented on how their lack of confidence in internet usage had led to non-adoption. The main reasons cited for low internet self-efficacy were fear of new technology, lack of access, lack of experience, and the perception that the internet was unnecessary to people’s lives. [8]

### **3-6- Convenience**

(Pew, 2003) Convenience was mostly described in terms of lifestyle, workplace use, housebound use, not having to travel, personal safety, not having to wait. [8]

### **4-6- Usability**

“The banks and financial institutions want everyone to go online, but they haven’t actually set up their system so that people can actually use it.” ‘Ease of use’ – or usability – was frequently cited and found closely linked to individual perceptions of complexity, web site design and integrate ability/interoperability. Interestingly, some non-users had formed views of complexity and site design usability issues without having sighted internet banking applications. Complexity concerns centered on registering and setting up the system. Some users noted that web site design was improving. In several cases, complexity and design issues had discouraged participants from pursuing internet banking. [8].

### **7- Risks& costs**

Rogers’ (1995) finding that more innovative, risk accepting people are ‘early adopters’ may explain why users in our sample were less risk averse than non-users. Consumers cited various types of costs which had inhibited their use of internet banking. Burnham *et al.* (2003) identified procedural, financial and relational costs considered by consumers when switching between various types of service offerings and such costs were cited by participants. [8]

### **8- Knowledge& Support**

However, many participants complained of inadequate access to required knowledge and to sources of assistance. Most participants believed this knowledge should be made available through immediate forms of interaction with banking personnel – face to face, online chat or telephone. Such media were preferred to e-mail, searchable internet-based knowledge repositories, web pages, or printed literature. Participants complained that many bank personnel knew very little about internet banking and, moreover, did not understand how it worked. Support was needed even prior to registration in the form of a demonstration or tutorial, so that a prospective user could assess how internet banking worked, with suggestions including having training running continuously at branches. As an example of the need for initial support, one participant commented on the difficulties of trying to arrange for banking personnel to visit a rural area to conduct an awareness and training class for potential internet bankers. Support was also needed for initial registration and set up, followed by responsiveness to ongoing concerns. One user observed that when banking staff were summoned to assist internet bankers, they were often not as responsive as with other types of consumers. [8]

### **9- Relative Advantage**

Participant perceptions of relative advantage had clearly influenced choices of banking method, as the above comment illustrates. We found that non-users were unaware of many of the relative advantages of internet banking such as the ability to print receipts (unavailable in phone banking) and the ability to store B-pay identifiers for a range of companies to which bills would regularly be paid (for example, utilities, credit card payments). Some non-users cited the lack of awareness of benefits as the reason why they had not adopted internet banking. Benefits were regarded as relative and were compared to a ‘satisfying’ (or ‘status quo’) decision with many non-users suggesting their banking needs were already being met [8]

**10- Internet Experience**

Based on related researches, prior technical skills in using the internet may affect intention to use internet banking. For example, prior computer experience has been found to influence intent to use a variety of technology applications including microcomputers and e-learning, as well as distance education .[6]

**11- Trust & security**

Trust, security, and privacy are multidimensional constructs and need further explanation. In this article the concentration is only on the aspects consumers are most concerned with. Which are interest in the level of confidence in the technology and willingness to adopt the online banking service as provided. Thereby the following hypotheses are proposed[6]

**12- Quality internet**

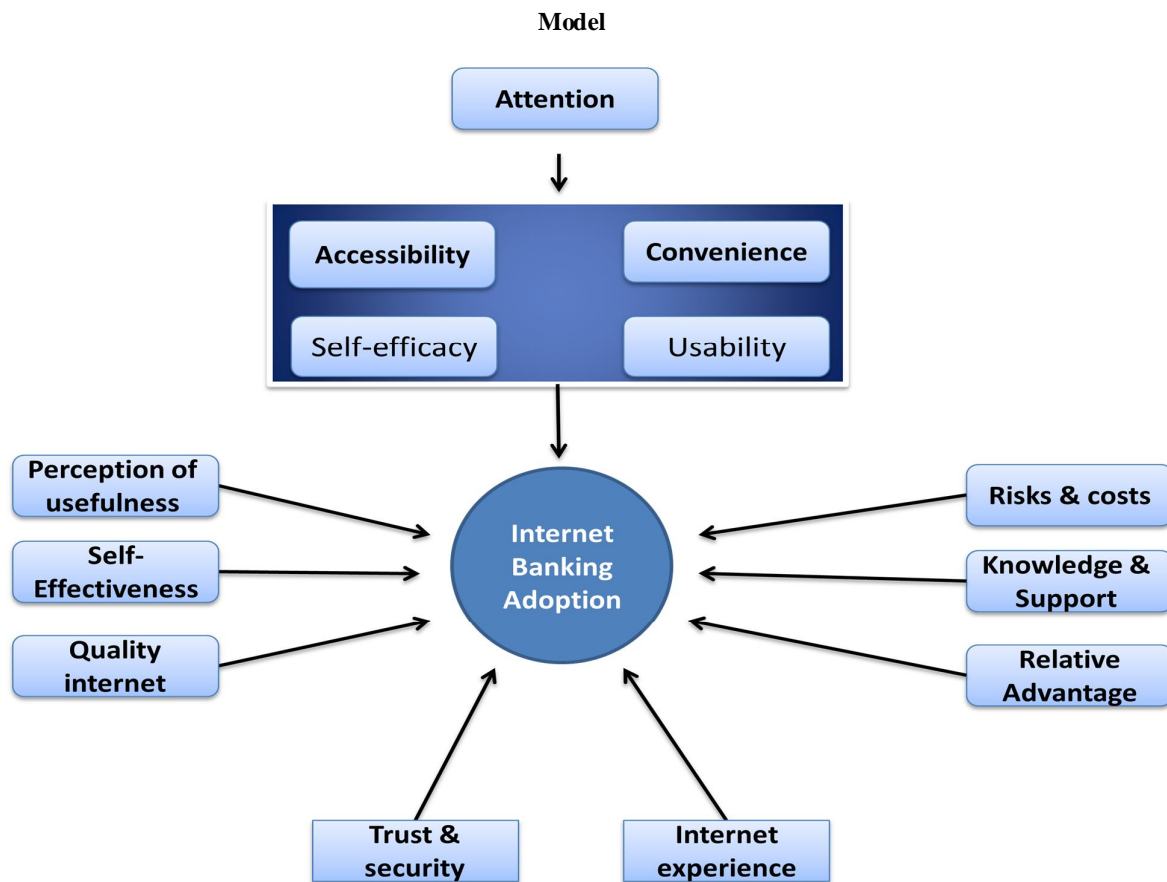
Picarenen et al (2004) argue that it is not possible to use internet banking without access to high-speed and high-quality internet. In a discovering research conducted in Finland, they demonstrated the quality of internet connection as an influential factor on Internet Banking Acceptance. [1]

**13- Self-Effectiveness**

defined computer self-efficacy as “judgment of one’s capability to use a computer”. They argued that computer self-efficacy represents its fundamental elements applied in the fields of use and mastery of information systems. Hill and smith (1987) argued that the computer self-efficacy represents behavioral intentions. [9] In previous studies, a significant positive correlation between previous computer technology experience and its consequences- such as its impact on the use of computer has been demonstrated. [1]

**14- Perception of usefulness**

Perceived usefulness explains the user's perception to the extent that the technology will improve the user's workplace performance. [11] Perceived ease of use explains the user's perception of the amount of effort required to utilize the system or the extent to which a user believes that using a particular technology will be effortless.[1]



### 15- Model Analysis

In internet banking model, the perceived ease of use of internet banking, accessibility to internet as well as usability constitute important parts of this model since these services require the ease of access to internet in order to use internet banking. Likewise, self-efficacy plays a key role, even though these services are easily accessible they would be of no use if the person is not capable of using them. Afterward, we examine the impact of risks, costs, confidence and security. These four factors act at the same direction so that if these banking services come along with high risks and costs, they will fail to attract customer acceptance to use these kinds of services. On the contrary, if these banking services come along with high security and confidence resulting from the relative advantages and perception of benefits among users, they will attract customers and direct them toward a potential users.

Finally, it should be noted that the internet user experience can create a positive experience in costumers' minds by raising the quality level of internet. Similarly, by promoting the knowledge level of the person regarding the associated services and by supporting the potential costumers via establishing the security of banking personal information, we widely observe the use of these kinds of banking.

### 16- Conclusion and suggestion

The perception of benefits, confidence and established security are regarded as the most effective factors on Internet Banking Acceptance. The information technology (IT) and the internet accessibility can, by means of banking support, encourage non users to use the internet services.

It should also be stated that many of non users did not have the necessary and sufficient knowledge regarding the relative advantages. So, this fails to attract the potential customer attention to this kind of banking. Nevertheless, the security of banking personal information has not just been justified for potential users wholly, so there has always been a fear to use internet banking. This leads to a decrease of banking acceptance among users.

It is strongly recommended that in order to motivate the users and customers to use internet banking, some enterprises must be undertaken including free training about how to employ this Internet Banking, making easier the use of this service as well as promoting the quality level of services via the relative advantages of banking.

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