

## **Adoption of Internet banking**

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**Abstract:** *The advent of internet has great impact on the electronic banking. By using internet, banking is no time limit and geographic. Customers worldwide can within 24 days of the week and all have access to their accounts. Internet banking by using internet and web technologies enable customers to finance their activities in a virtual environment to do this is the difference between internet banking and home banking that for achieving banking services via the internet, there is no need to install proprietary software rather banking services but also can be accessed via a internet public network and the customer is linked to your bank account via the internet. This type of banking is partially web-based banking subsidiary with the difference is that web banking services bank was considered first introduced bank and service. Internet banking also expanded with the development of web applications. With increasing internet access to people who provide these services to be developed and banks that are unresponsive to this issue will disappear from the market.*

**Keywords:** *Internet Banking, Adoption*

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### **I. Introduction**

Together with the increasing rate of Internet and mobile services penetration, we are witnessing significant changes regarding the conduct of economic transactions. Simultaneously, bank service providers have been constantly adapting to these changes and at the same time they have met consumers' requirements with new services. The core of banks new strategic orientation currently consists of developing new alternative distribution channels. In Olteanu's opinion the mobile phone, PC and the Internet are regarded as an option that was taken into consideration (Olteanu, 2000). Thus, since their emergence services like Internet Banking, Home Banking and Mobile Banking were launched on the market very rapidly. It is worth mentioning that these services have gained popularity among users in a relatively small period of time. The premise of this kind of transaction emergence is the computerization of banking operations, the irreversible characteristic of the bank management. Electronic banking services included under the umbrella term of ebanking are divided into three categories: Internet Banking, Home Banking and Mobile Banking. According to the definition provided by the current Romanian legislation, e-banking refers to a system that allows bank customers to perform banking activities without going to the banking institution and includes three categories mentioned above.

Virtual banks can be established in several ways. For example, new investors in the banking industry obtain charters from state or federal supervisory authorities to establish new, independent virtual banks (Furst et al., 2000). Alternatively, existing banking companies create virtual banks as separately capitalized subsidiary banks of a bank holding company (Furst et al., 2000). A third route is investors purchase the existing charter of a traditional bank, and then to recast the bank as a virtual bank under the existing charter (Furst et al., 2000). Hong Kong was the first Asian country to provide electronic banking services via the Internet in 1990 (Ongkasuwan and Tantichattanon, 2002). In 2000, the Hongkong Shanghai bank corporation (HSBA) bank in Hong Kong provided the first Internet based retail banking services to the public (Ongkasuwan and Tantichattanon, 2002). The bank provided Internet based deposits, stock trading, bill payment, and foreign exchange services for qualified customers at discounted transaction fees (Ongkasuwan and Tantichattanon, 2002). The bank also reduced the online stock trading commission from RMB0.5 to RMB0.25 for the Internet-based service in order to increase visiting rates and profits (Ongkasuwan and Tantichattanon, 2002). In Thailand,

due to the economic crisis and Non Performing Loan (NPL) in 1997, many banks were forced to reduce costs via a reduction in human resources (Ongkasuwan and Tantichattanon, 2002). Many experienced bank employees were offered early retirement and the remaining employees faced increased workloads with shorter service hours (Ongkasuwan and Tantichattanon, 2002). This change caused the majority of the Thai banks to use Internet banking to reduce waiting time, errors and costs, and ultimately improve customers' satisfaction. This allowed customers to access and inquire about their accounts and perform simple transactions via the Internet from their computer at home or work at their convenience (Ongkasuwan and Tantichattanon, 2002). The private customers banking portal of Hansabank has more than 397,000 registered users (Kerem, 2003). In Estonia, Internet banking possibilities are provided by all major banks. Out of the 233,700 people used Internet banking, many customers have used the services of more than one bank (Kerem, 2003). Estonia in general, is very suitable for Internet banking applications due to the relatively high penetration of personal computers and Internet access. The heavy user demographic group of Internet banking is between 35-49 years. The lowest usage rates are among 15-24 year olds since many of these younger people might not need a banking service (Kerem, 2003). In addition, single (not married) customers seem to be the dominant users of Internet banking (Kerem, 2003). In Australia, Internet banking growth has continued despite initial consumer security fears. In 2005, there were approximately 5.5 million Internet banking users (approximately 34 per cent of the adult population) (AC Nielsen, 2005). By offering Internet banking, the traditional financial institutions wanted lower operational costs, improve consumer banking services, retain customers, and expand their market share (Lichtenstein and Williamson, 2006). In New Zealand, customers have been accustomed to safe and secure „electronic information and money transfer systems“ (Boer, Evans and Howell, 2000). Increasing numbers of institutions have been introducing and expanding their Internet banking products into the New Zealand market, such as Australia and New Zealand (ANZ) Bank, Bank of New Zealand (BNZ), Auckland Savings Bank (ASB) Bank, National Bank of New Zealand, Westpac Trust Bank, and Taranaki Savings Bank (TSB) bank (Shergill and Bing, 2005). These banks offer a full range of Internet banking services and approximately 56% of the population uses Internet banking. In China, the electronic-based Internet banking is a relatively new banking method and provides financial transaction services to customers. The service includes 24 hour access to customer bank accounts, transfer transaction between accounts, personal financial consulting, online stock trading, shopping, and utilities fee payments (Ongkasuwan and Tantichattanon, 2002).

## **II. The Internet Banking Environment**

The internet distribution channel can add value to banking franchises in a number of ways, depending on whether it is used to augment physical branches (click-and-mortar banks) or in place of physical branches (internet-only banks). The strategic core of the click-and-mortar banking model is to route standardized, low-value-added transactions (e.g., bill payment, balance inquiries, account transfers, credit card lending) through the inexpensive internet channel, while routing specialized, high-value-added transactions (e.g., small business lending, personal trust services, investment banking) through the more expensive branch channel. By providing an option for customers who want to do some, but not all, of their banking over the internet, a click-and-mortar bank may be better able to retain its most-profitable customers. In contrast, the strategic core of the internet-only business model is to reduce overhead expenses by completely eliminating the physical branch channel. Most internet-only banking franchises in the United States have struggled for profitability. Some have exited the market via acquisition, voluntary liquidation, or regulatory closure. Others have remained in the market, but changed strategies, augmenting their transactional websites with physical branches. Similarly, a number of the large banking companies that launched "trade name" internet-only ventures, such as Washington-Mutual, have integrated these business units back into the main bank. However, a small number of internet-only banking franchises have achieved some measure of profitability and remain committed to this business model in the long run.

### **III. Factors Influencing The Acceptance Of Internet Banking**

Many factors are seen to be influencing the acceptance of Internet banking and it is important to take these factors into account when studying customer attitudes towards Internet banking. Awareness of Service and its benefits Pikkarainen (2004), has reported that the amount of information a customer has about Internet banking and its benefit may have a critical impact on the adoption of Internet banking. Moreover, Sathye (1999) note that low awareness of Internet banking is a critical factor in causing customers not to adopt internet banking. In addition Howcroft et al. (2002) find that lack of awareness of Internet banking services and its benefits are found to be reasons for consumers' reluctance to use Internet banking services. Security and reliability of transactions over the internet is a burning issue and it is an important factor that customers consider before adopting Internet banking. Some customers avoid electronic banking as they perceive it as being easily susceptible to fraud. This perception can damage consumers' confidence of the online system as a whole. According to a study conducted by Sathye (1999), 73% avoided the adoption online, banking because they are concerned about safety and security of transactions over the internet. Moreover, Sathye (1999) found that consumers will not be ready to change from present familiar ways of banking to Internet banking unless their specific need is satisfied.

### **IV. Quality Of The Internet Connection**

Quality of the Internet connection is seen to be an essential component for any Internet-based application. Sathye (1999) used Internet access as one of the factors affecting the adoption of Internet banking. Without a proper Internet connection the use of Internet banking is not possible. Pikkarainen et al. (2004) identifies the importance of a decent Internet connection and its quality in adopting Internet banking and he concludes that without a proper Internet connection, the use of Internet banking is not possible.

### **V. Demographic Characteristics**

Demographic factors are frequently used as a basis for understanding consumer characteristics. The popularity of using demographic factors is attributable to the observed relationship between the consumption of certain products and certain demographic factors. The demographic characteristics include age, sex, income, occupation, education. In Murillo and Roisman's (2004) report, the authors indicate that a bank's decision to provide Internet banking depends on the characteristic of the market the bank serves, such as the demographic characteristics of potential customers, as well as whether the bank is located in a metropolitan area. Demographic characteristics also play a vital role in understanding the buying behavior of consumers in different segments, and when the characteristics are identified, they enable companies to develop products and services according to customers' specific requirements, tastes, and preferences (Sakkthivel, 2006). In addition, for Internet banking service adoption, banks must consider a user's demographic characteristics to offer the correct range of service products. Several studies have been conducted to profile the Internet consumer's demographic characteristics and the results of these studies suggest that innovators who belong to the high income category are normally initial users of the Internet (Gan, Clemes, Limsombunchai, and Weng, 2006). Further, Sakkthivel (2006) reveals that the profile of an Internet user tends to be young, male, well educated, and earning an above-average income. According to Polatoglu and Ekin (2001) and Howcroft, Hamilton, and Hower (2002), demographic characteristics that describe typical electronic banking customers include young, affluent, and highly educated. A Finnish study (Mattila, 2003) reveals Internet banking users are relative wealthy, highly educated, and are in higher professions. Awamleh and Fernandes (2006) also find that in United Arab Emirates, young affluent and highly educated groups generally accept technological changes more readily.

### **VI. Impact Of Internet Banking On Customers**

Customers are expected to enjoy several benefits as a result of the implementation of Internet banking. Chan (2001) stated convenience as one of them. Johnson et al (1995) agrees that convenience is an important factor to customers. Devlin (1995) found that customers are now demanding greater conveniences and accessibility. This is reflected in longer branch banking hours and an increase in the choice of delivery mechanisms. Baldock (1997) found that the implementation of Internet banking would remove the constraints of time, place and form. The reason is that transactions can be conducted from anywhere and anytime as long as

they have access to a computer and connection to the Internet as banks would be “open” 24 hours a day and 7 days in a week (Chan, 2001; Johnson et al., 1995; Jeon and Rice, 1997; Baldock, 1997). Birch and Young, (1997) asserted that consumers would also enjoy the privilege of access to far more providers of financial services. As a result of a wider choice of Internet bank service providers, the costs searching, negotiating and concluding deals will be lower as the comparison of products and services would be made easier over the Internet (Peters, 1998). Information on pricing and returns is also far easier to gather (Birch and Young, 1997). Chan (2001) also quoted that customers will be able to save on traveling to the branch and other intangible factors like avoiding the aggravation of traffic jams and long queues as the advantages of Internet banking. He also stated that with certain browsers, the “autofill” feature will help save time because frequently visited website addresses, login names and passwords need not be typed over and over again. Indeed Birch and Young (1997) highlighted, customers will be able to conduct their banking transactions at ease, because they would not be subjected to high-pressure sales tactics.

## **VII. Awareness**

Adoption can be defined as the acceptance and continued use of a product, service or an idea. According to Rogers and Shoemaker (2001), consumers go through “a series of process in knowledge, conviction, decision and confirmation” before they are ready to adopt a new product or service. The adoption or rejection of an innovation begins when “the consumer becomes aware of the innovation” (Rogers and Shoemaker, 2001). Howard and Moore (2002) emphasized that adoption “consumers must become aware of new brand.” Lack of awareness is the most important factor that negatively affects Internet banking adoption (Sathye, 1999). In this same context we are able to argue that if the average consumers are not adopting Internet banking services due to their unawareness of the availability of such a service and / or benefits it offers. Ease of Use Cooper (1997) identifies “ease of use” as one of the three important characteristics from customer’s perspective for adoption of innovative service.

## **VIII. Cost**

Price/costs is one of the single most important factor that influences the consumer adoption of innovation. Suganthi et al (2001) found that cost as a characteristic of Internet banking. Two types of costs are involved in the Internet banking, i.e. normal costs associated with Internet activities and second is the bank charge and cost (Sathye, 1999). If consumers are to use new technologies, the technologies must be reasonably priced relative to alternatives (Willis Report, 1997). Otherwise, the acceptance of the new technology may not be viable from the standpoint of the consumer. Virtual Society Project researcher (Buzz, 2000), point out that millions of users are now turning their backs on the Internet due to its limitations and high access charges.

## **IX. Reluctance To Change**

Quinn and Mueller (2002) found that human beings try to resist change, especially towards technological innovations. According to Daniel (1999) also stated that there is a high level of customer inertia in changing their established banking arrangements. Sathye (1999) emphasized that customers, particularly the senior citizens, prefer personal interaction and that they have technology phobia.

## **X. Accessibility**

Finally, availability of access to computers/Internet is a prerequisite for adoption of Internet banking (Sathye, 1999). The more widespread the access to computer/Internet the greater the possibility of use of Internet banking adoption. O, Connell (1996) study found that lack of access to computers as one of the reasons for slow adoption of Internet banking. Daniel (1999) study in UK reveals that lack of customer access to suitable PCs as the main reason for low usage of electronic banking. In the same view Ramsay and Smith (1999) found that accessibility as one of the main reasons for non-adoption of Internet banking.

## **XI. Conclusion**

The objective of this study is to analyze the factors affecting bank customers’ decisions to adopt Internet banking. Identified that the characteristics of earlier adopters of innovation as having higher levels of

education, social status, self esteem and higher incomes. Therefore, bank manager should have different strategies in targeting different group of customers in terms of gender, age and education in order to promote and encourage Internet banking adoption. Internet Experience is identified as the most important factor influencing consumers to adopt Internet banking. Therefore, the government and banks have to develop methods that can increase bank customers' knowledge and skills about computers and Internet banking. Banks who try to attract new customers will also benefit from an understanding of why customers do not adopt Internet banking. Bank managers can make use of such information to develop appropriate strategies to attract new customers to use Internet banking services. In general, if the bank management has greater knowledge about the factors affecting their customers' adoption of Internet banking, then they have greater ability to develop appropriate strategies and hence increase the Internet banking adoption rate.

### References

- [1]. AC Nielsen, (2006). Online banking continues despite security concerns. AC Nielsen, 2005, Retrieved from World Wide Web on 7 February 2006 at
- [2]. Awamleh, R., and Fernandes, C. (2006). Diffusion of Internet banking amongst educated consumers in a high income non-OECD country. *Journal of Internet Banking and Commerce*, December 2006, Vol. 11, No. 3.
- [3]. Baldock, R. (1997). The Virtual Bank: Four Marketing Scenarios for the Future. *Journal of Financial Service Marketing*, 1(3), 260-268.
- [4]. Boer, B. D., Evans, D., and Howell, B. (2000). The state of e-New Zealand.
- [5]. Booz, Allen & Hamilton. (1996). *Internet Banking: A Global Study of Potential*, Booz, Allen and Hamilton Inc. New York, NY.
- [6]. Chan, L.M. (2001). Is Online Banking Safe, the Star (February), 42.
- [7]. Cooper, R.G. (1997). Examining Some Myths About New Product Winners, in Katz, R., ed., *The Human Side of Managing Technological Innovation*, Oxford, pp. 550-560.
- [8]. Daniel, E. (1999). Provision of Electronic Banking in the UK and the Republic of Ireland. *The International Journal of Bank Marketing*, 17(2).
- [9]. Furst, K., William, W. L., and Daniel, E. N. (2000). Internet Banking: Developments and Prospects. Office of the Comptroller of the Currency Economic and Policy Analysis Working Paper 2000-9.
- [10]. Gan, C., Clemens, M., Limsombunchai, V., and Weng, A. (2006). A Logit Analysis of Electronic Banking in New Zealand. *International Journal of Bank Marketing*, Vol. 24 No.6, pp. 360-383.
- [11]. Howard, J. & Moore, W. (2002). Changes in consumer Behavior Over the Product Life Cycle, in Tushman and Moore, ed., *Readings in the Management of Innovation*, Pitman, 128.
- [12]. Howcroft, B., and Hamilton, R., and Hewer, P. (2002). Consumer attitude and the usage and adoption of home-banking in the United Kingdom. *International Journal of Bank Marketing*. Vol. 20 (3), pp. 111-121.
- [13]. Jeon, L. & Rice, W.P. (1997). From Web Strategy to Implementation at Liberty Financial companies, in Cronin, M.J., ed., *Banking and Finance on the Internet*, John Wiley & sons, New York, NY, 107-136.
- [14]. Kerem, K. (2003). Internet banking in Estonia. PRAXIS Center for Policy Studies.
- [15]. Lichtenstein, S. and Williamson, K. (2006). Understanding Consumer Adoption of Internet Banking: An Interpretive Study in the Australian Banking Context. *Journal of Electronic Commerce Research*, Vol. 7, No. 2, pp. 50-66.
- [16]. Mattila, M. (2003). Factors affecting the adoption of mobile banking services. *Journal of Internet Banking and Commerce*, Vol. 8 No. 1, available at:
- [17]. Murillo, R. H., and Roisman, D. (2004). Point and Click, or Mortar and Brick? A look at Internet banking in the Eighth District. Article provided by Federal Reserve Bank of St. Louis in its journal: *The Regional Economist*, October, 2004.
- [18]. Ongkasuwan M. and Tantichattanon, W. (2002). A Comparative Study of Internet banking in Thailand. *Paper presented at the The First National Conference on Electronic Business, Bangkok, 24-25 October, 2002*.
- [19]. Peters, L. (1998). The New Interactive Media: One-to-one, But to Whom? *Marketing Intelligence & Planning*, 10(1), 22-30.
- [20]. Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., and Pahlila, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224-235.
- [21]. Polatoglu, V. N. and Ekin, S. (2001). An empirical investigation of the Turkish consumers' acceptance of Internet banking services, *International Journal of Banking Marketing*, 19(4), 156-165.
- [22]. Quinn, R.B. & Mueller, J.A. (2001). Transferring Research Results to Operations, in Tushman and Moore, ed., *Readings in the Management of Innovation*, Pitman, M.A, pp. 62.
- [23]. Ramsay, J. and Smith, M., (1999) Managing Customer Channel Usage in the Australian Banking Sector. *Managerial Auditing Journal*, 14(7).

- [24]. Rogers, E.M. & Shoemaker, F. (2001). *Communications in Innovation*, Free Press, New York, NY.
- [25]. Sakkthivel, A. M. (2006). Impact of Demographics On The Consumption Of Different Services Online India. *Journal of Internet Banking and Commerce*, December 2006, Vol. 11, No.3.
- [26]. Sathye, M. (1999). Adoption of Internet Banking by Australian consumers: an empirical investigation. *The International Journal of Bank Marketing*. 17(7), pp.324-334.
- [27]. Shergill G. S. and Bing L. (2005). Internet banking – An empirical investigation of Customers“ behavior for online banking in New Zealand. *Journal of E-business*. 5(1): 1-16.
- [28]. V., Olteanu, (2nd ed.), (2000 ) *Marketing of Services*. Uranus Publishing House, Bucharest,
- [29]. Wallis Report (1997). The Financial System Inquiry Final Report, AGPS, Canberra.