



The Future of Mobile Banking

Gökçağ Polat¹

Abstract

With new technology, the bond between banking services, online systems and the customer are increasing. Internet banking is a widely used contact method between the customer and the bank. It provides easy access, time saving for the customer and cost saving and ability to be in touch with the customer to the bank. Now with the usage of smart phones, internet banking takes one step further and allows the customer and the bank to be in touch in all times. A lot of banks have applications for android processors or iPhones. Social media also has an important effect on the increasing of usage rates. The aim of this study is to consider the future of mobile banking and also in this study the adaptation process of the banks to mobile banking will be examined. Mobile phone is more accessible than internet connection through personal computers and mobile phone operators have a wider coverage area. It provides sustainable customer relations for banks which they do not have any branches. For this research, expert opinion was taken. These experts are the banking professionals who have experience more than five years in marketing and alternative distribution channel departments of the banks.

Keywords: Internet Banking, Mobile Banking, Sustainable, Technology

Introduction

With new technology alternatives marketing channels became very important for banks. Banks are able to reach their customers through different channels like telephone, automated teller machine (ATM) and internet besides retail banking. The technology adds new dimensions to the classic banking systems. For example, over the last few years, self-service technologies have replaced the need for face-to-face interaction between banks and customers [1].

One of the self service applications is mobile banking. Mobile banking (m-banking) is making banking transactions on mobile devices like smartphones and tablets through applications. Mobile banking applications are tailored to all major mobile service providers and banks.

Although ATM, telephone, and internet banking offer effective delivery channels for traditional banking products, mobile banking as the newest delivery channel established by retail and microfinance banks in many developed and developing countries is likely to offer even more services and have significant effects on the market [2].

Traditional banking in rural areas does not work well [3, 4], because of poor transportation services, long distances, and the resulting high cost of delivery. Branchless banking, in which a resident of a village acts as an agent for a faraway bank, provides a way of connecting rural people to the banking world. It simplifies to reach customers and contribute to sustainable customer relations. It enables a host of services including simple withdrawals and deposits. It reduces two of the biggest problems to financial access: the cost of roll-out (the cost of having a physical presence) and the cost of low value transactions [4].

¹ Gökçağ Polat, Marmara University, Institute of Pure and Applied Sciences, Department of Engineering Management, Istanbul, Turkey, gokcagpolat@gmail.com



As the penetration of smartphones increases the tendency of the consumer to be online the usage of mobile banking also increases. Besides the branches, call centers or ATMs are not only touch points for banks. Banks invest in mobile banking applications to be more in touch with the customer in all times. By this way, banks provide sustainable customer relations. It is also time saving and more efficient for the customer and cost saving for the banks. Banks must also add value to their mobile banking applications to provide more powerful customer relations.

Mobile banking has advantages for customers. Through mobile banking, customers can make different banking transactions easily. Internet access cost is important but phone operators offer tariffs which include internet usage. People do not need high internet package to use mobile banking. They can buy the package which they need only and internet connection costs are even lower than internet usage costs from houses.

A lot of banks see the mobile banking as the most important trend in future. According to the Banks Association of Turkey Report mobile banking user number was 8 million 853 thousand in third quarters of 2014 [5]. According to Financial Empowerment in the Digital Age research, Turkey is the leader at using mobile banking in first half of the year 2014 in European Countries. This research also say number of mobile banking users who use internet increased from 49% to 56% in Turkey [6]. The number of mobile banking users increases but at the same time the number of internet and mobile fraud increases. According to research made from Ernst and Young, 68% of smartphone users do not use mobile banking because of the security reasons [7]. Fraudulent capture the password of customers and they can attain customers' accounts. So fraud is an important issue for customers as they perceive fraud as an important threat. To overcome fraud problems banks try to increase their security precautions and give information to consumers to protect them against fraud.

The purpose of this research is to consider the future of mobile banking and also in this study banks' precautions to mobile banking fraud was examined. For this aim questions were asked banking professionals in order to get more detailed information about the present and future mobile banking.

The significance of the paper is to emphasize the importance of mobile banking in future with developing technology according to both banks and customers.

Literature Review

Internet banking is defined as the use of banking services through the computer network (the Internet), offering a wider range of potential benefits to financial institutions due to more accessibility, user friendly use of the technology and lower transaction costs [8].

Pikkarainen, Pikkarainen, Karjaluoto, and Pahlila highlighted two main reasons for the development and proliferation of internet banking. First, the cost savings by the banks compared with the traditional channels; second, the reduction of branch networks and, therefore, the costs with staff [9]. Jayawardhena and Foley also identified the benefit of increasing the customer base, because using multiple distribution channels (branch networks, Internet banking, mobile banking, etc.) amplifies market coverage by enabling different products to be targeted at different demographic segments [10].

Internet banking offers many advantages both for the banks and customers. First the advantage of it for banks is the potential savings from the cost of maintaining a traditional branch network, and it creates an opportunity



to increase the consumer base by reaching a differentiated target group from the traditional bank customers [11].

The development of electronic banking to mobile banking the services of bank have actually upgraded with the introduction of different kind of innovative functions and practices, the question arise, whether the technology will be adopted by the customer on same footing? Or the technological advancement would discover easy way for acceptance by the user as compare to the internet? Many researchers take this question. Customers are now more interested in new channel and less willing in doing transactions physically; they are less loyal to traditional moves and methods and more demanding for superior service quality [12]. The increasing circulation of mobile technology and WAP-enabled strategy has brought very visible development in electronic banking [13].

Many of the determinants valid for electronic banking are also valid for banking through mobile devices [14]. Time saving, and freedom from the place and time constraints, immediacy or service speed, compatibility and convenience with life style are the factor that stimulate the use of technology in service, while complication of service like perceived cost, service ignorance of electronic devices, perceived credibility, perceived trust are factors which require a brief touch for better understanding as comparative issues in both technologies while increasing features of mobile phones and increasing numbers of mobile users making this device as big channel and vast potential for service sector [15].

Banks are investing in mobile technology and security, developing smartphone applications, adding new features such as remote deposit of checks, and educating consumers. Consequently mobile banking adoption among consumers has been much faster than the adoption of online banking more than a decade ago [16].

Internet and mobile Internet banking services are the most innovative and profitable banking services introduced by commercial banks in Turkey. According to Turkish banking Association's (TBB) statements Isbank offered the first internet banking service in 1997 to its customers and were followed by Garantibank in the same year. And for year 2004 it's reported that 22 banks in Turkey were offering internet banking services to their customers. According to a recent statistic about the Internet Banking usage in Turkey made by Turkish Banking Association, there are 15 million users registered for retail banking and approximately 1 million users for corporate banking. This makes 16 million for overall registered users of which are 17% active for retail banking and 47% for corporate banking.

Fraud encompasses a range of irregularities and illegal acts characterised by intentional deception or misrepresentation, which an individual knows to be false or does not believe to be true. Fraud is perpetrated by a person knowing that it could result in some unauthorised benefit to him or her, to the organization, or to another person, and can be perpetrated by persons outside and inside the organization. Fraud perpetrated to the detriment of the organization is conducted generally for the direct or indirect benefit of an employee, outside individual, or another organization [17].

Methodology

Questions about mobile banking were asked to five banking professionals who are Individual Internet Executive, Mobile Services Executive, Alternative Distribution Channel Specialist, Head of Anti-money Laundering and IT Auditor of different banks and one consultant who gives consultancy to banks by face to face in depth interview method. These people have more than five years' experience in their areas. Questions are:

- What are the main differences between internet and mobile banking?
- What does mobile banking bring as innovative to customers life or banking sector?
- Do you think that there is any security problem with mobile banking? What are the security problems?



- Why do banks give importance to mobile banking?
- Is there any effect of social media on mobile banking usage?
- What do you think about the future of mobile banking?
- What can banks do to remove customers' worries?

These questions were chosen to see the effects of mobile banking over banks and sustainable customer relations. Most of the researches about mobile banking are focused on customers' behavior. On this paper I wanted to research the mobile banking under the aspects of banks. Experts' opinions were received by the questions if there is contribution or not to sustainable customer relations of mobile banking. While asking these questions to Individual Internet Executive and Mobile Services Executive, these professionals answered the questions together.

Findings

Firstly asked "what are the main differences between internet and mobile banking?" All banking professionals said mainly both of them includes similar applications. But, mobile technology grows more quickly than internet technology both in Turkey and in the World. For this reason banks give more importance to mobile banking investment. Mobile banking is not an alternative channel; it is now a basic service channel. Banks have a lot of customers from all parts of Turkey. Some small towns do not have enough banking opportunities and internet infrastructure. But banks reach easily to all of their customers through mobile banking. In the near future all services done from internet banking will be also possible via mobile banking.

The consultant said that processes in banking sector started to be similar among competitors. Different thing is only advertisements. With new innovative products people now are more mobile and to follow the agenda are more online. Internet banking was the one of the first step of adaptation to changing world conditions. But it was not enough to provide sustainable customer relations while smartphone user numbers were increasing sharply. So mobile banking started to be important one step further than internet banking for banks. To get new customers and to be in first place in market, banks should make more investment to their mobile banking applications.

Second question is "what does mobile banking bring as innovative to customers life or banking sector?" Mobile Services Executive, Alternative Distribution Channel Specialist and Individual Internet Executive said customers think that mobile banking simplifies the financial management. Because customers always have smartphones with them and they easily check their financial statements with mobile banking applications. Also, banks expand their customer network easier than traditional banking. Fingerprint technology is slowly entering our lives for mobile banking. It will simplify the usage and it will strengthen the security. To enter a person's bank account, you will need his fingerprint.

Head of Anti-money Laundering and IT Auditor said customers do a lot of banking transactions by mobile banking except withdrawal, deposit, credit card delivery and transactions which need wet signature like mortgage.

Consultant said that banking sector had a new platform through the mobile banking. Banks compete to have best mobile banking application. Customers want from banks user friendly applications.

Third question is "do you think that there is any security problem with mobile banking? "What are these security problems?" These questions were asked only to Head of Anti-money Laundering and IT Auditor as these questions are mainly of interest to these two experts.



Head of Anti-money Laundering said that mobile banking technology develops but also some new fraud transactions improve with the technology. Banks make investment to prevent cyber-attack. To use mobile banking customers have to have user name and a unique password. After entering these values a security message is sent to customer's mobile phone. Banks strengthen their security precautions. Smartphones may receive some cyber-attacks but customers prevent that by using only secure and certificated applications.

IT Auditor said customers should never follow a banking link sent to them in a text message or e-mail. These links can probably lead customers to fake websites and if customers enter their user name and password to this websites, customers' accounts become an open target to cyber-attack. Not to be exposed to fraud, consumers should not share their all mother's maiden name, credit card and debit card password, credit card security number, internet branch password and internet banking login and disposable password.

Fourth question is "what can banks do to remove customer's worries about security?" Alternative Distribution Channel Specialist, Individual Internet Executive and Mobile Services Executive said that a lot of security programs are used to prevent fraud. Education is given by banks about how customers can use this security programs efficiently. Public Wi-Fi areas aren't very secure. If customers want to control their bank accounts, they do not use public wireless. Banking applications are more secure than connecting from websites of the banks.

IT Auditor and Head of Anti-money Laundering said that banks buy new more powerful security programs to prevent cyber-attack. To have a customer's banking account, you must have both customer's phone and his password. A lot of tests were done to see the security defects. Firstly, new features of mobile banking were used to willing customers. If there is not any problem, these features open to all customers' usage.

Consultant said that every bank has their own security packages and different security precautions. To open mobile banking operations, some banks want a user name and password and after that a disposal security code sent to customer's phone. This code is entered to screen and then customer can use banking application safety. Some banks want customer number to reach bank's mobile application and a photo which was chosen by customer that was seen before. Consumers understand the page's security through the accuracy of the photo.

Fifth question is "why do banks give importance to mobile banking?" Mobile Services Executive and Individual Internet Executive said that mobile banking is still developing platform and customers started to prefer this platform more than the other channels. Banks want sustainable customer relations and for this mobile banking is an efficient platform. Also, customers want faster and cheaper service. Making financial transactions from mobile phones are also faster and cheaper than making these transactions from the branches.

Other banking professionals and consultant said the same thing as; people need to be more mobile than before. For these reasons consumers want to make their banking transactions easily and quickly while they are travelling.

Sixth question is whether there is any effect of social media on mobile banking usage? Banking professionals said that Turkey is one of countries with highest number of social media users. All banks have social media accounts and customers can follow the banks' new products. Banks make campaigns to increase mobile banking usage and customers know these campaigns although they are not going to banks' branches.

Consultant said that lots of young people control their social media accounts when they get up. Banks have advertisements on social media page to attract young people especially. Some banks present their customers



money transfer opportunities through Facebook and consumers can see their total assets and credit card statements with detailed graphs.

Seventh question is “what do you think about the future of mobile banking?” “Mobile Services Executive and Individual Internet Executive said that branchless banking’s importance will increase and mobile banking is one of the branchless banking concepts. Mobile banking is relatively new compared to the other banking services. Mobile banking usage rates increase steadily. Turkey is one of the leader countries among the other European countries which use the mobile banking. Customers started to use cash less than the last years.

Alternative Distribution Channel Specialist said that in future, internet and mobile banking won’t be only an alternative and especially will be channels used by young people. Y generation likes using technology, more comfortable with mobile banking .

IT Auditor and Head of Anti-money Laundering said that banks try to minimize systematic defects to provide more customer satisfaction. In future, mobile banking will be more secure and people won’t hesitate to use mobile banking applications

Consultant said that mobile banking is important and also simplifies the life but increase in mobile fraud worries the customers. Banks should improve their security prevention. Young people prefer mobile banking mostly. If banks do not take precaution to minimize the fraud, older generations will not start to use mobile banking. People who live in countryside and meet new with technology have difficulty in using mobile banking but it is easier than internet usage. Via mobile banking, banks decrease their costs to meet customers. Some education programs can be given about mobile banking to attract these people who live in countryside. Also, banks want to decrease their costs and they will want price to make transactions which done in branches. With this way, people will start to use mobile banking. If customers continue to come to branches to make transactions, banks will take from them transaction cost. Population will have mobile banking usage habit and bank branches will need fewer employees to carry on their daily processes.

Discussion and Conclusion

Results and managerial implications

With developing technology and trends, alternative distribution channels come into question for banks. Especially mobile banking investments will increase in future.

Bank’s main aim is to maximize profits. There are a lot of banks in the market and profit margins are decreasing day by day. Mobile banking will provide some advantages to banks. Banks will have advantage to do their jobs with fewer employees and less cost.

According to answers which were taken from banking professionals and consultant and past researches, traditional banking and internet banking are not so much popular any more, now mobile banking shows a rising trend. With investment and new features, mobile banking will have a more important place in banking sector. The rising of mobile banking will provide sustainable customer relations for banks. Because it allows the customer and the bank to be in touch in all times. But also consumers should pay attention to security. They do not use public Wi-Fi areas while using their bank accounts and should not follow fake links to protect themselves from cyber-attack.



The result of paper is investing in mobile banking and user number will increase in future. Also, fraud attempting to mobile banking will continue but it will be difficult to capture consumers' accounts if they take enough precautions.

This research has contributed to past researches because questions were asked different people from different banks. This study would make a significant contribution in understanding the behavior of banks and customers about mobile banking.

However, the rise of the mobile banking covers wide range of subjects and future researches can have different approaches to mobile banking. So future of banking sector, changes at branch numbers and mobile application features can be reviewed for further studies.

References

- [1] Eriksson, K., & Nilsson, D. (2007). Determinants of the continued use of self-service technology: The case of Internet banking. *Technovation*, 27, 159–167.
- [2] Safeena, R., Date, H., Kammani, A., Hundewale, N., 2012. Technology adoption and Indian consumers: study on mobile banking. *Int. J. Comput. Theory Eng.* 4 (6), 1020–1024.
- [3] Gautham Ivatury. Using technology to build inclusive financial systems. In CGAP Focus Note 32, Washington D.C., 2006.
- [4] Gautham Ivatury and Ignacio Mas. Early experiences with branchless banking. In CGAP Focus Note 46, Washington D.C., 2008.
- [5] Internet ve Mobil Bankacılık İstatistikleri <http://www.tbb.org.tr/tr/banka-ve-sektor-bilgileri/istatistiki-raporlar/eylul-2014---internet-ve-mobil-bankacilik-istatistikleri/1375> [accessed on 31.10.2014]
- [6] ING International Survey. (2013). Financial Empowerment in the Digital Age
- [7] Ernst & Young News – Releases <http://www.ey.com/TR/tr/Newsroom/News-releases> [accessed on 25.10.2014]
- [8] Aladwani, A. M. (2001). Online banking: A field study of drivers, development challenges, and expectations. *International Journal of Information Management*, 21(3), 213–225
- [9] Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahlila, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224–235.
- [10] Jayawardhena, C., & Foley, P. (2000). Changes in the banking sector – The case of Internet banking in the UK. *Internet Research*, 10(1), 19–30.
- [11] Yereli, A. (2002). “Elektronik Bankacılık ve Türkiye Uygulaması”, Yayınlanmamış Doktora Tezi, Celal Bayar Üniversitesi, Manisa.
- [12] Norizan Mohd Kassim, Abdel Kader Muhammad Ahmad Abdulla, 2006; The influence of attraction of internet banking: an extension to the trust relationship commitment model; *international Journal of Bank Marketing* 24, 6 p. 424-442
- [13] Mohd Abbas S. Z., R. A. Rehman, Manhenthiran, S. (2009), “Ultimate Ownership and Performance of Islamic Financial Institutions in Malaysia”, Asian Finance Association Conference, July 2009
- [14] Dennis F. Galletta; Yogesh Malhotra, (1999) “Extending The Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation”, proceedings of 32nd Hawaii international conference on system sciences, 1999
- [15] Laukkanen, T. (2007) Internet vs. mobile banking: comparing customer value perceptions *Business Process Management Journal* Vol. 13 No. 6, 2007 pp. 788-797
- [16] Sunil Gupta and Kerry Herman, “Bank of America: Mobile Banking,” Harvard Business School Case, 2012.
- [17] Vona, L.W.(2008). *Fraud Risk Assessment: Building a Fraud Audit Program*. Canada: John Wiley&Sons, Inc.