The Survey of affecting factors on adoption mobile banking services, via customer satisfaction approach
(Case STUDY: Melli Bank of Masshad City)

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Abstract
As a result of a field research study for adoption of mobile Banking services (M.B.S), by approach banking to customer satisfaction in the Melli bank of Mashhad has been examined. In this study, the methodologies of descriptive-correlational and cross-sectional survey were employed. Our Statistic society of this Study consisted of all individuals eligible who were available for completing the distinct questionnaire in special sites considered were to complete them. Random sampling of 234 cases was selected from clients of this bank.
At Beginning in data Analysis Information, Survey for the reliability of the theoretical models, evaluated via the application of Amos software. Then Available information through the SPSS and Amos Software were analyzed. The results showed that five variable comprise: Familiarity with Bank, Information quality, trust, Perceived Usefulness, and ease of use, have a direct significant relationship to customer satisfaction in mobile Banking service, while the relationship between design qualities, have not a significant relationship whit customer satisfaction for.

Keywords: Mobile Banking services, E-Banking, Customers satisfaction

1. Introduction
Mobile banking is one of the newest electronic distribution channels for banks that technology is increasingly vital element for their convenience and added value for the customer and the bank increases. Given the clear benefits of this technology, now it has gained great popularity in European and Asian countries. Customer satisfaction is a concept created especially banking clients in business today due to the loyal customers as a key component to the success of the banks have been more than ever before has been addressed. No business other than the state monopoly organizations can survive without their customers satisfied and loyal. In addition to the fact that customers’ expectations are constantly changing, banks are required to satisfy the basic needs of customers went beyond expectations to provide them focus their spending satisfy client satisfaction and confidence to make via linking long-term, mutually profitable for both parties to focus on (Dick, A.S., Basu, K., 1994). Among studies in the past, DeLone and McLean (1992) examined the success of information systems, and 6-factor model of interactions between information systems success: (1) system quality, (2) Information quality, (3) usage of IS, (4) user satisfaction, (5) personal effects, (6) the effects organizations have offered. They successfully model the system in 2003. DeLone and McLean (2003) updated their model of IS success by adding a “service quality” measure. Generally, ISS model consists of three dimension of quality comprised: system quality, information quality and service quality that is, their theoretical framework to explain the acceptance of mobile banking was introduced to various predictors. In a study by Kun Chang Lee and Namho Chong (2009) has been done on the ways in which the three quality factors - quality, information quality and service quality - are supported by mobile banking and its impact on trust and satisfaction Consumers have begun to focus. The proposed model is based on the model de Leuven and McLean, external quality assessment of factors that can affect the satisfaction and trust, pays. Their results show that system quality and information quality has a significant influence on trust and satisfaction and design quality do not affect them. According to studies by researchers in the past, in this study, the effect of six factors including: Familiarity with bank, Information quality, trust, Perceived Usefulness, and ease of use, and customer satisfaction in relation to mobile
banking. Melli Bank of Mashhad, (that located in our study) checked to a deeper understanding of customer satisfaction achieved by the use of mobile banking. Acceptance of Mobile Banking that has Increase market share and more famous brand, it can show very well some variety such as the customer satisfaction of the mobile banking. Melli bank of Iran give currently many banking services including: information on account balances & account and bill payment services circulating. Receive invoices via fax, announced missing cards… regulating through mobile banking system.

2. Background and Literature of Debates

Internet expanded in 1970 by academic experts to share downloads, increased up to 1993 to the public, and especially the popularity of Internet businesses that hope to expand their customer rose. The factors that bankers have realized to Internet were the deal with the: huge amount of customers, customers lost, and competition among the non-banks person and organizations. In 1994, banks began to explore in the internet to use from services of banking use. This kind of bank for each transaction branch banks was offered a lower price. Also banks have access to global markets and more customer comfort, more attention revealed. Until January 1995, there were only 24 banks on the Internet. However, within a year, this number was increased to 800 banks, so that industrial banks Experts estimated that of North America by 2000, about 1,500 will be established Internet. Electronic banking activities in Iran backed to 1350(1972). At the time, Tehran banks acquired between 7 -10 pay automatic branches that was first experience in the same installed branches. Banks in late 1360(1982) due to the need to use personal computers and computer automation of banking operations banking operations began (website of Sepah Bank).

The rapid growth of wireless communication technologies (mobile) causes to penetration of Internet and mobile commerce has been more. Accordance Studies in the field of mobile commerce in 2001, only 16 percent of users of the Internet and mobile used. That is predicted an increase in 2007 to 57 per cent (Yang, 2005, 141). Because mobile commerce is still new, there isn’t a comprehensive definition for it. Muller and Worth (1999) believed that mobile commerce is a subset of electronic commerce. Kane (2001) also says that is one of the new extended electronic commerce that is conducted through mobile Internet. Others have defined it as: Any direct or indirect transactions with monetary value that is conducted via mobile networks. According to Huang and Burnham, mobile commerce is delivery of products and services through wireless technology and e-commerce activities at any time or place. Therefore, mobile commerce is not a modified form of Internet services, but also it is an expanded form the of e-business via mobile. Opportunity Mobiles commerce provided a new service to deliver existing customers and attract new customers and organizations (Buellingen, 2004, 1403).

The newest Services for Offer banking and financial Services to customers by Phone is the short massage system (SMS). Banking with mobile is a system that can do their banking, Along With Possible send and download message in this system. Installing an application on a mobile phone without going to the bank and at any time of the day you can operate many of banking activity such as balance, the transfer of funds, pay bills etc. Based on prediction “Data Monitor” Institute, the number Uses from mobile Banking predicted in 2004 reached to more of 14 million peoples.

On Basis done Search by since don’t do a few Specific and Special research At Context of the review of the factors influencing an adoption of mobile services banking to customer satisfaction approach. In Iran this is research of performance by more done in the Services E banking and or Internet banking deal.

Research done in as: Ansari (1390) at a research to done a model for offer mobile financial services with loyalty approach to Customer At Mellat Bank. He stated in his research that the factors like perception ease, value perception by credit system attraction and life style customers on create a tendency ratio to use of mobile services and to consequently it use satisfaction, important loyalty ratio to Services Financial Mobile Role Important. His research Results shows that Variables Like Perception Value, Perception Credit, And Attraction System Directly effected On Loyalty Ratio Bankers Mobile, They And Variables Like Ease Perception And Style Life Customers Effect Other in Direct On Loyalty. Of course, at out Of Country done research from the areas related to subject like: Wessels & Drennan (2010) in a study paid to identify and test the motivation and barriers to customer acceptance of mobile Banking. Specifically for their customers tend to vary according to use, self-service banking technologies began. The results showed are influenced that perceived usefulness, perceived risk, and compliance costs, consumer acceptance of mobile ban will affect. Kun Chang Lee and Namho Chung (2009) on the ways in which the three quality factors - system quality, information quality and service quality - are supported by mobile banking and its impact on consumer trust and satisfaction,
are the focus. The proposed model is based on the model de Leuven and McLean, external quality assessment of factors that can affect the satisfaction and trust. Their results show that system quality and information quality has a significant influence on trust and satisfaction and design quality do not affect them. Therefore, the present assumptions, the following forms:
1. Information quality on customer satisfaction has a positive impact on the adoption of mobile banking.
2. Perceived Usefulness on customer satisfaction has a positive impact on the adoption of mobile banking.
3. Rely on customer satisfaction has a positive impact on the adoption of mobile banking.
4. Design quality has a positive effect on customer satisfaction the adoption of mobile banking.
5. Understanding the acceptance of mobile banking bank on customer satisfaction has a positive impact.
6. Ease of use has a positive impact on customer satisfaction the adoption of mobile banking.

3. Materials and Methods

This study aims to determine experimentally, from the causal relationships between mobile Banking and factors affecting customer satisfaction of the application, And in terms of data collection, it is, descriptive and correlational. In addition, since the method of structural equation modeling to test the hypothesis uses the correlations of this study is to analyze the correlation matrix or covariance.

4. Statistic Society, Quality of Sampling and Sample

The research simple population consisted of all eligible individuals residing in Mashhad Mobile Banking are considered for answer questionnaires that available at the time of the study in certain cite for this survey. The study used random sampling. Distributed 30 questionnaires in the primary study to determine the response variance, number of samples needed (because people have unlimited) Cochran formula will earn unlimited Society (Delaware, 1380).

\[
n = \frac{t^2 \cdot \sigma^2}{d^2 \cdot (1-\alpha)}
\]

n: needed sample volume, d=estimate care 1- \( \alpha \)= confidence level \( S^2=\)variance

Therefore, the approximate sample size for this study is: \( N \approx 232 \)

5. Required Data, Variables, and Methods of Their Calculation

Theoretical study methods for data collection is used based on the library methods and in the application study of field methods. In this field studies used closed questionnaire. The Questionnaire have two parts of demographic questions, including: age, gender, education that consists of seven main questions related to: customer satisfaction, reliability, design quality, perceived usefulness to the bank, familiarity with database and ease of use. The questionnaire using several scales including: Bharati and Chaudhury (2004) scale and design quality associated confidence scale associated on Stewart (2003) and Pennington et al. (2003), the Perceived Usefulness, associated on scale Gefen et al (2003), Information quality, and ease of use banking-scale introduction on Moon and Kim (2001) and customer satisfaction based on Kohli et al. (2004). Entire range of questions has based on five-items in Likhert scales include:

From 1= completely disagree to 5 = strongly agree rating. Cronbach's alpha coefficient study of variables acquires respectively: Information quality 88 percent, Perceived Usefulness scale 82 percent, trust Scale 77 Percent, design quality scale 87 percent, Familiarity with bank scale 81 percent, ease of use scale 76 percent, and customer satisfaction scale from adoption of mobile banking 86 percent.

These numbers indicate that the questionnaire used in this study is the standard questionnaire that has necessary reliability, or in other words, it has perpetuity. The content validity of a test is usually determined by experts in that distinct study subject. Also in this research, various interviewing and management viewers of different academics of marketing, were made amendments necessary, and thus ensured that the questionnaire evaluate the same traits desired by researchers.
6. Analysis and Results

6.1 Statistics Descriptive

As previously mentioned, the sample size of 232 peoples, of which 88 were equivalent to 37/9% men, 144 equivalents to 1/62% female. Thus, the highest national bank customers in the city of Mashhad, women are perhaps the result of women being more active in social and economic spheres of society. So that is observed within the sample of 232 peoples, 9 one are in the age category 18-22 years, 146 persons in the age class 23-35 years, 74 people in the age category 36-50 years, 3 people in the class are age 50 or older. Thus the maximum number of customers in the age category 23-35 years. This result is not unexpected because the study because most mobile users in the course of this class are the age of mobile banking use.

Our sample of 232 peoples comprise of: 4 peoples are in the following undergraduate degree (under diploma), diploma and associate degree students, 36 students, 62 students in the undergraduate, 106 graduate students and 24 doctoral students. In the total sample, 1.7% of subjects in the Diploma, Diploma and Degree level are 15.5%, 26.7% of the sample are located at the undergraduate, graduate, and 1 4, is 50.7% of the 0.3% of the doctoral have been enrolled. So that we can see more samples are graduate-level education and few of them have been enrolled in the cross following diploma. Perhaps so that the get mobile services banking school results at the use of the-class expressed possible.

A sample of 232 people comprised of: 94 single and 138 others are married, that in the last column of the table corresponds to the cumulative percentage of the response data, unmarried. 40.5% of the total sample, 59.5% were single and married each row in this column equals the sum of rows before the rows with data in the columns of the response is always the last line of this column is 100. Perhaps more number of married in a sample is due of the high percentage of marriage cultures in this society.

6.2 The Results of Testing Hypotheses

Structural Equation Modeling

In structural equation modeling of on the one hand, a conceptual model to evaluate the level of compliance data and research that will fit you properly and enjoys the other hand, significantly relationships in the model to be tested. To test this hypothesis, path analysis and structural equation modeling to examine the overall fit of the model used.

6.3 Research Confirmatory Factor Analysis Variables

Although a variety of tests to general fitness index are called continuously are comparing, developing, but still there is not general agreement on the optimal test. The result is a different article presented its various indicators various indicator presented and even famous writing program SEM, such as Amos software, Lisrel and many of the fitness index to lose. Then given model, There are various ways to estimate the overall goodness of fit of the model Observed data (Arbitration and Zadeh, 1392). In general, several indicators to measure model Used Although it is generally acknowledged model, using three to five good indicator 's. Overall, the present study was used to evaluate the goodness of fit indices for all models CMIN / DF, CFI, IFI, NFI, RMSEA, AGFI, GFI, PNFI, RMR. Number of each of these parameters in Table 1 comes. As can be seen in the table below is a very good model fit.
Table 1 The fitness of the research model

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Propriety normal</th>
<th>Outrace model</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMIN/DF</td>
<td>&lt;5</td>
<td>0.904</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.08%&lt;</td>
<td>0.000</td>
</tr>
<tr>
<td>GFI (Goodness of Fit Index)</td>
<td>&gt;90%</td>
<td>0.93</td>
</tr>
<tr>
<td>(AGFI)</td>
<td>&gt;90%</td>
<td>0.902</td>
</tr>
<tr>
<td>(NFI)</td>
<td>&gt;90%</td>
<td>0.949</td>
</tr>
<tr>
<td>(CFI)</td>
<td>&gt;90%</td>
<td>1.000</td>
</tr>
<tr>
<td>(IFI)</td>
<td>&gt;90%</td>
<td>1.006</td>
</tr>
<tr>
<td>PNFI</td>
<td>&gt;50%</td>
<td>0.7</td>
</tr>
<tr>
<td>RMR</td>
<td>&gt;50%</td>
<td>0.056</td>
</tr>
</tbody>
</table>

6.4 the Assumption of Normality of the Data

To use of statistical techniques for data collection must be specified by a normal distribution or abnormal. As in the case of normal distribution of the data collected to test the hypotheses that can be tested using parametric and nonparametric tests as being abnormal. Therefore at this stage to review the results of the Kolmogorov - Smirnov about any of independent and dependent variables in the study are discussed in Table 5.

Table 2 Results of normality test of dependent and independent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance Level</th>
<th>VALUE STATISTICS</th>
<th>Confirmatory HYPOTHESI</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Use</td>
<td>0.001</td>
<td>1.902</td>
<td>H0</td>
<td>Normal</td>
</tr>
<tr>
<td>Familiarity with Bank</td>
<td>0.04</td>
<td>1.397</td>
<td>H0</td>
<td>Normal</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.032</td>
<td>1.436</td>
<td>H0</td>
<td>Normal</td>
</tr>
<tr>
<td>Design Quality</td>
<td>0.006</td>
<td>1.693</td>
<td>H0</td>
<td>Normal</td>
</tr>
<tr>
<td>Trust</td>
<td>0.010</td>
<td>1.626</td>
<td>H0</td>
<td>Normal</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.021</td>
<td>1.53</td>
<td>H0</td>
<td>Normal</td>
</tr>
<tr>
<td>Information Quality</td>
<td>0.021</td>
<td>1.53</td>
<td>H0</td>
<td>Normal</td>
</tr>
</tbody>
</table>

According to the results above the significance is level of less than 0.05, the null hypothesis is confirmed by the results of this study distribution of the dependent and independent variables are normal.

7. Hypotheses Testing

After review and approval model to test the hypothesis of a significant part of the critical value of and P are used. Some critical value, which is obtained by dividing the "Estimated regression weights on the standard error is obtained. Based on a significance level of 05/0 the critical value must be of 96/1 is. Less than this value, the parameters of the model are not considered important as well as smaller amounts of 05/0 P values indicate a significant difference from the calculated regression weights with zero confidence level of 95/0 is. Hypotheses with partial regression coefficients and the values of the parameters associated with each hypothesis in the figure 1 & Table of 3 is shown.
According to the results in Table 3, all hypotheses except the fourth hypothesis by confidence 95/0. Hence, the given The quality of information, Perceived Usefulness, or Trust, introduction to Bank, ease of use have a
significant effect on Customer satisfaction from mobile banking but based on results obtained in this study, design quality has no significant effect on customer satisfaction of mobile banking.

8. Discussion about Theoretical Results are Compared with the Results of Previous Research

As expected, the quality and customer satisfaction that there was a positive relationship by adoption of mobile banking. Such a relation is logical, because as DeLone and McLean (1992) expressed the quality of information on the amount of use, user satisfaction, and ultimately the behavior of individuals and organizations to which they belong, would effect. High quality with user satisfaction in close relationships. Information quality is a strong indicator of the extent of customer satisfaction in e-business environment (Aladwani and Palvia, 2002, Palmer, 2002.) Information quality is important factors in the success of the present model, which determines the user's trust in the financial transactions that would have been. Since mobile banking can not be established with customers face to face contact, high quality information to make sure you have the confidence of users is required (Kim, et al, 2003). The hypothesis that there is a significant relationship between quality and customer satisfaction by several researchers, including Aladwani and Palvia, 2002, Kim et al, 2008; Bharati and Chaudhury, 2004, Fung and Lee, 1999 be approved.

The second hypothesis received the benefit and satisfaction of customer acceptance of mobile banking, there was a positive relationship. Such a relation is logical, Because If a Member Mobile banking find useful for your work, want to use it (Gu, J.C., Lee, S.C., Suh, Y.H., 2009, 11614). Study Performance by at Relation with Acceptance Banking Mobile By customer At Estonia Show Data Is That The Then One Of The most important Factors Effective on Acceptance Banking Mobile to Count the If (Suoranta, M. and Mattila, M., 2004, 358). Well On The Study Performance By By Harp And Associates The Usefulness Perception By The The most important Agent Acceptance Banking Mobile At Hong Kong identified (Cheng, T., Lam, D., Yeung, A, 2006, 1561). Significant positive impact on customer satisfaction agent Perceived Usefulness from the adoption of mobile banking in previous studies such as Giv et al, 2009, Wang and colleagues, 19, 2005; Gifen 20, 2003, Suh & Han, 2002 to approve.

As expected, the reliability and customer satisfaction, there was a positive relationship between the adoptions of mobile banking. The concept of trust is important in marketing and management information system (Stewart, 2003 Yun, 2002). This concept is based on trust, partners in business communications, to believe in the credibility of his partner (Morgan and Hunt, 1994), this is a continuation of trust between partners is very close. Two dimensions of trust, credibility, and benevolence 24 and 25. Credit indeed, the belief that partners will effectively carry out their roles and good faith belief that partners with the intention of providing particular benefits are in new situations. Trust in mobile banking, because the online environment and dealing with money transactions, is considered as an important factor (McKnight et al., 2002, 301).is accompanied by (Lee et al, 2009, Stewart, 2003).

The present results indicate that the design quality and customer satisfaction, acceptance of mobile banking relationship does not exist. Design quality is associated with how to display information on mobile banking system such as reducing wasted time in the bank, quick transactions, availability and so it will always care .not affect Banking. Online shopping, many retailers are not well known is that a new company will set up (Gifen et al, 2003, 58). In comparison, online shopping, mobile banking is more important than trust banks newly designed website which is no longer apparent.

As expected, the introduction of mobile banking, bank and customer satisfaction admit there are strong positive relationship. Understanding the perception that based on past interactions, experiences, and learn from what others are doing, takes shape is defined. This familiarity leads to high levels of trust and mobile banking users are more familiar with, the more possibly they will use it (Gifen et al, 2003, 59). Meet the database can be divided into two parts, dating and dating knowledge based interactions, can be shared. Therefore, we can assume that the introduction of knowledge based trust and familiarity Banking mobile interaction is related to perceived ease of use (Gu, J.C., Lee, S.C., Suh, Y.H., 2009, 11,614). The results obtained in this study confirm previous studies by other researchers, such as Gu, J.C., et al, 2009; Gifen et al, 2003; McKnight et al 1998 and has been done, is.

As observed, the ease of use and customer satisfaction of mobile banking adoption there are positive relationship. Ease of use To Of Or Degree A shed The Be That Is Use And Application of a System Specific Without a belief Individual And Of Required Of Effort High hardness is (Gu, J.C., et al, 2009, 11,615). The research shows that mobile banking will need to consider the ease and convenience of using mobile services is banking. Several studies in the past as the result obtained in this study have shown that the use of mobile
technology acceptance Banking impact studies such as Gu, J.C., et al, 2009; Hsu et al., 2004; Ong et 27, 2004; Agarwal et 28, 2000; Taylor and colleagues 29, 1995.

9. Limitations of The Study

Some limitations of this study were:
Of There That Research Related To Mobile Banking within the country, especially rare From Is Designing Questionnaire New Justifiability And Stability Appropriate And Standard By For Topic This Research Work hard Was.
Although the sample number was sufficient, but only customers of a bank is doing. To generalize the results to all banks in the banking industry is the limitation of the current study.
Possible statistical errors in the data analysis of the study's limitations

10. Uses and Users of Their Results

Multifarious Benefits Of Offer Services Banking Bank News Email To Hand the offer, which included Of It, The Power To lower transaction costs, Offer Services 24 hours a day, Increase Efficiency at Process And ... Mention the banking industry. Of By Mobile Banking: One Of Newest Channel of Distribution E the Bank of Is The technology, To Manner Increasing A The They Vital Elements By The Comfort And Value Added The Bank And Customer Increase The offers. According To the obvious advantages Specified and Technology, Both now The System at Countries, Asian and European has gained great popularity. Then, some applications of the present study are represented by:

The results of this study are familiar with the variable most banks in creating mobile Banking is customer satisfaction. However, with regard to this topic, promotional activity must have prior knowledge of the users to the database, there is a greater focus on the promotion of the program, the benefits from this technology or ease of use, and especially in comparison with should be banks.
The results suggest a significant impact of Information quality on customer satisfaction Banking is mobile. Besides providing the bank with complete information, and available (provide full information on the Bank’s website, offering guide software, skilled personnel possess strong communication skills and the ability to be online, etc.) for guidance and helping customers to use mobile banking system, it can enhance the information resources available to clients. If customers experience imaginations' banks, sufficient resources, knowledge and skills needed to conduct mobile operations has Banking with trust, mobile banking services are used. Traveling and mobile banking, new features, etc., resulting in the satisfaction of their customers, resulting in greater use of that system. Also, can a list of common questions that customers frequently ask, preparation and response with the option of Online Banking or Telephone Banking System always do panels?
The survey results have a positive impact on customer satisfaction, trust the mobile Banking confirmed. In other words, infrastructure and legal and general mobile systems Banking the confidence of customers towards using the system impact. However, the more banks are Paybndtr obligations and ethics of its clients, customers trust this system becomes higher. The Bank should introduce the knowledge and skills of experts employed to create a mobile banking system in the mass media, the bank’s website, a page of your mobile application Banking, etc., clearly stating all laws to combat crime and electronic fraud and accurate determination of the responsibility of the Bank on the implementation of this law, the guarantees provided in the context of keeping the personal information, provide guarantees on customers' clear the obligations the bank, mobile banking act and take an effective step in winning the trust of customers.
The results indicate a significant impact on the Perceived Usefulness of mobile Banking is customer satisfaction. That is what our customers have a positive perception towards the usefulness of mobile banking to the band, their consent for this service becomes more positive. As a result, banks need to design systems that enable our customers to have an understanding of the benefits and potential acceptors needs to be consistent etc, so they can move through it to great success in the mobile Banking achieve customer satisfaction.
According to the research results significant positive impact on the ease of use of mobile Brayjad Banking is customer satisfaction. The mobile banking system designers should instead focus on the system's ease of use and intuitive interface easily with this software focus. Customer's perception of the ease of use of these technologies is affected first experience of using it. Therefore, the first decisive role in his next customer's perception and experience will also be affected. still too work with the system in facilitating give their opinion.
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