

# Evaluation of Effective Factors on Customer Tendency in Using Bank Mobile Services (Case study of ZAHEDAN MELLI Bank)

Mostafa Parsa Moghadam<sup>1\*</sup>, Soleyman Khazaei<sup>2</sup>

<sup>1</sup> PHD in State management field, Islamic Azad University, Kerman Unit, Iran  
<sup>2</sup> MA in Trade management field, Islamic Azad University, Torbat Jam Unit, Iran

## ABSTRACT

This investigation related to application of Bank Mobile service by customers in Iran that it applied for deep comprehension of effective factors on application of Bank Mobile service by customers. Therefore, using existent model in literature investigate effective factors in acceptance of these tools. Statistical community in this investigation includes all customers that used Bank Mobile service in MELLI Bank Department of ZAHEDAN city. To select sample used simple random sampling method. In addition to gather data from questionnaire and analysis of research assumption used structural equation modeling. Recent research in procedure is effect investigation and in performance is survey and its aim I application research. Result of research showed that perceived security, perceived facility, perceived usefulness and perceived cost are effective factors on customer tendency to use Bank Mobile services.

## KEYWORDS

Electronic Trade, Electronic Banking, Bank Mobile, Technology Acceptance

## INTRODUCTION

Fast growth of communication and information technology, electronic banking has important and central role in electronic payment ground [16].

In fact electronic banking is a way to reduce costs and stay in competition compared to traditional banking [17]. Bank Entrance to big information technology Provide this opportunity to have remarkable develops to present and expand electronic services. They use communication and information tools to identify new method to their customers

Every day, so Customers receive needed services better and faster than past. According to this, Iran banks must adopt themselves with new technologies and international Banking industry one of these technologies that is sub branch of electronic banking is banking base on mobile or bank mobile [15].

Information technology development and appearance of different forms of electronic banking, actually changed procedures of banking relations with Customers. Banks has various services in ground of payment to customers. However, these efforts not be successful without acceptance of electronic banking by customers. If technology would not use, despite all competences and technical abilities, it can not be effective. In this regard information technology acceptance by people attracted a lot of attention [2].

Bank mobile is one of payment procedure that regular application of it can reduce a lot of bank cost. On the other hand, it provide customers satisfaction due to ease of access to financial transaction such as balance of account, transactions and payments thought mobile in any time and place rather than waiting in bank line in working hours [13].

Mobile payment service play central role in mobile trade service. Mobile payment services in order to succeed and continue, must accepted. Reality of market shows that before expecting large acceptance, there is various discussion must resolve. Mobile payment industry not only faced technological problems but also deficiency in profitable business model. Digital payment process is Necessitate in order to success in electronic trade. In addition, mobile trade appearance to but physical and digital goods any place and any time may need non-cash wireless payment. Therefore, it is necessary to develop mobile payment system [5].

1.\*Corresponding Author: MOSTAFA PARSA MOGHADAM  
E-mail r: mostafa.parsa66@gmail.com  
Telephone Number r: 09158409939

Therefore, factors identification influence on Customers tendency to use bank mobile service and consider these elements to present mobile payment service can play key role in development of these services. Therefore this research wants to provide solutions and patterns to identify effective factors on Customers tendency to use bank mobile service. Investigated community in this research is MELLI bank customers. In another word, recent research seeks appropriate response to this question: that what factors influence customer tendency to use bank mobile service of MELLI bank?

### LITERATURE REVIEW

One of substructures of electronic world is electronic trade. Today, even countries that had not high position in cosmopolitan economy and they had no rather advantage, due to comprehension of economic new reality, result of being electronic, had fundamental steps to be in cosmopolitan competition of economy. In recent years, due to electronic process of trade and banking, we witness appearance of pervasive phenomena in many countries entitle flow trade. According to this, one of the fundamental dimensions of his kind of trade is banking and payment procedures, it is in retail payment. Bank mobile due to reasons such as lack of place limitation, high entrance coefficient of mobile and being personal considered attention of many people [4].

Bank mobile define as canal that in it customers interact with bank through mobile Device. Bank mobile service provide the opportunity for customers to have access to bank accounts through mobile device, anytime and any place, and they do their daily interactions. by mobile device can do many bank transactions such as balance of account, cease in check pay, transmission of money from one account to another and so on [12].

Since, appearance of electronic banking is new issue in Iran. Confronting Customers resistance to accept this technology has high importance. In addition, information technology entrance and particularly mobile device in banking industry change competition environment. Regarding to vast changes of cosmopolitan markets and increase of extensive competition, interaction experience with customers in cosmopolitan level is determinant strategy [9].

### REVIEW TO TECHNOLOGY ACCEPTANCE THEORIES

To identify effective factors on service acceptance from users must evaluate stated theories in this ground. Therefore, studies perform in the ground of effective factors in people tendency to use services in following identify some stated theories in this ground.

#### TECHNOLOGY ACCEPTANCE MODEL

This theory is adaptive type of "Rational performance" theory in information system content that it presented by Fred Davis in 1989. This theory is one of effective theories performed in acceptance theories and it followed studies

after rational performance theory. In another word, it is a model spring from that theory. Davis in this theory, instead of identified factors in rational performance theory, consider two factors of ease of use feeling and perceived usefulness in formation of behavior intent and user choice to use new technology, effective. This theory is a model to determine how user Reach to conclusion to use and accept new technology. According to this, when users face new technology, there are some factors significant on their decision regarding time and way of technology usage [21].

These factors from Davis view included:

Perceived interest related to person belief from system application and its effect on effective performance.

Ease of use feeling related to person trust of ease of use from particular system.

This model is one of the important models used in acceptance studies of information system that it states perceived usefulness and perceived ease of use influence on people thoughts using information systems.

### RATIONAL BEHAVIOR THEORY

This theory presented by fishbein theory development in 1975 by AJZEN and fishbein. In fact this theory states that main factor to perform action by person is tendency of person influenced by two factors of person attitude to behavior and mindnorm of person.

### PLANNED BEHAVIOR THEORY

AJZEN 1991, developed and reviewed rational behavior theory and planned behavior theory base on this theory. In this theory, AJZEN added perceived behavior control concept that means difficulty or facility, person experience in action performance. That is, if person had positive attitude toward behavior, but feel it out of ability, will not do it [1].

### COMPOUND MODEL

Nysveen in 2005, integrated several model to predict service acceptance by users. As a result, merge model includes factors such as application ease, perceived usefulness, social norms perceived clarity, perceived joy and perceived behavior control [18].

### INNOVATION DISTRIBUTION THEORY

Innovation distribution theory is another popular model in ground of new technology application by users. In this theory, distribution defined as a process that in it, An innovation through particular canals connect with members of society during time. According to this, users examine an innovation base on some features such as comparative advantage, adaptability, complexity and test ability. Two features of cost and perceived risk also added to this theory in 1997.

### RESEARCH BACKGROUND

Some of research in this ground performed in Iran and other countries. They indicated here briefly:

1- Taghavi Fard and Torabi (2010) perform an investigation intended to identify effective factors on application of bank mobile service using model that it was design base on innovation acceptance model and innovation distribution theory. This model divide effective factors on apply bank mobile service to three sections of bank mobile technology features, psychological features and sociology features. Research conducted for a sample of TEJARAT bank customers and findings showed that among bank mobile technology features, adaptability, use cost, that ability and usefulness are effective. However, complexity and perceived risk had no significant effect on it and among psychological features, risk- taking and thoughts about change are effective, However, belief leader had no significant effect.

2- Hosseini Kia and Haj Heidari (2010) performed a paper entitled evaluation of effective factors in creation of value in mobile banking service. According to the result of this research, it is effective to present framework in the ground of creation of value regarding created interest include ubiquitous present, relaxation, localization access and personalization, pay expenses, technology learning cost and risks.

3- Hashemian et al (2012) studied effective factors on electronic banking acceptance from SAMAN Bank Customers. In this regard, using existent models in literature, evaluate variables and potential effective factors on acceptance designed questionnaire. Analysis of data performed base on descriptive statistics and structural equation modeling and using SPSS and LISREL software's. Results showed usefulness factors, adaptability, ease of use and facility condition had significant effect on acceptance of all four electronic banking tools, that is, bank card, internet bank and mobile bank.

4- Kim et al (2009) evaluation effective factors on payment acceptance through mobile. They represent a model that ease of use and usefulness are two main factors of acceptance.

5- Gu et al (2009) showed bank mobile acceptance from customers had rather lower level than acceptance of other mobile service and effective factors on this acceptance is not limit to technology feature (ease of use and usefulness), but also technology task adaptation is important factor in acceptance. Theoretical framework and conceptual model of research since considering all effective factors on customers tendency to use bank mobile service id difficult, conceptual model in figure 1 for this research obtained by some remarkable theories present in this ground and base on studies on research background in ground of bank mobile and poll from teachers and master thinkers of bank. According to this model, there are four effective factors on customer tendency to use bank mobile service that consider as follow:

Perceived ease of use: it indicates to degree that person believed learning to use particular technology needs little mental effort [6].

Perceived usefulness: perceived usefulness of technology means degree that person assumes use of particular technology help to perform better [6].

Research results indicated there is positive relationship between perceived usefulness and technology application [10].

Perceived security: it refers to person comprehension toward security of system regarding keep personal private perform banking transaction [19].

In another words, security means degree of safty of electronic banking, to prevent people access to their money and account information [18].

Security is one of important factors effective on bank mobile service acceptance.

Perceived cost: an innovation cost involve three elements: purchase cost, transmission cost and use cost. In this regard, usage cost has reverse relation with innovation use [19].

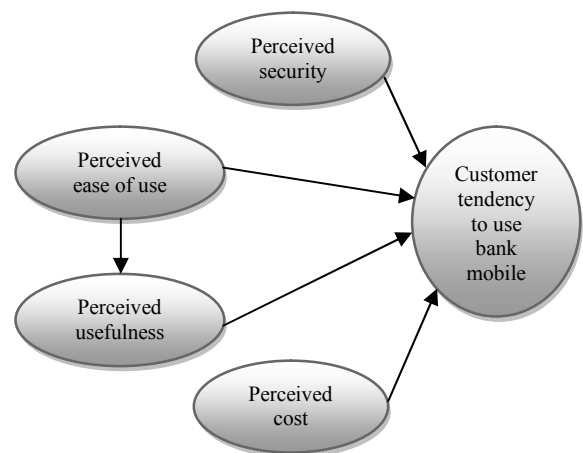


Fig.1. conceptual model of research

#### RESEARCH ASSUMPTION

Assumption 1- perceived security has positive effect on customer tendency to use bank mobile service.

Assumption 2- perceived ease of use has positive effect on customer tendency to use bank mobile service.

Assumption 3- perceived ease of use has positive effect on perceived usefulness.

Assumption 4- perceived usefulness has positive effect on Customers tendency to use bank mobile service.

Assumption 5- perceived cost has negative effect on Customers tendency to use bank mobile service.

#### RESEARCH METHOD

Method of this research is case study, because focus is on particular bank and this defines factors and research variables and relationship between them in particular framework, this research regard to aim is applied research, because its results apply to aware bank managers from different effective factors on acceptance degree of one of electronic banking service by customers.

Regarding setting, this research is field research, since research data gathered by presence in community and statistical sample and use questionnaire tools.

Regard method, this research is description survey research, because, it considers feature distribution of bank customers community.

It describes elements and variables of research and way of relation between them in particular framework.

Statistical Community of research Were all customers using bank mobile service of MELLI Bank in ZAHEDAN city in 2013. Recent research due to statistical community features performed simple random sampling.

Required information in presented research gathered using library studies methods involve books, articles, journals, research reports, documents existent document and internet use, questionnaire and managers a War Experts and masters interviews in related grounds. Required data in recent research performed using close questionnaire base on 5 items response "liker scale". Recent research questionnaire provided base on research model. To ensure research questionnaire validity, used masters. Experts and bank managers views and after modification provided final questionnaire. To Determine reliability of questionnaire use Cranach alpha. In this regard, during pretest, 30 questionnaires distributed in statistical community customers. Then using data obtained from SPSS software and Cranach alpha method compute reliability of questionnaire. Alpha obtained for all research questions equal 81 percent that this number shows reliability of questionnaire.

To analysis data in this research used inferential and description statistics (structural equation model).

At first, using description statistics of condition and sociology features of respondents obtained recognition. To test assumption and evaluate variables relation in research used one sample t-test and structural equation model (confirmed cause passage analysis). To process data used SPSS software and LISRE. Cronbach alpha coefficient used to analyze questionnaire question correlation and index reliability evaluation. Number of 400 questionnaires distributed randomly that finally 358 Questionnaire completed, returned and entered to SPSS software.

## RESULTS AND CONCLUSION

To illustrate test results of research assumption (confirm or lack of confirm of assumptions) base structural equation model represented table (1) briefly.

Table.1. research assumptions test results

Assumptions	Estimated coefficient	t-statistic	results
Perceived cost has negative effect on customer tendency to use bank mobile service	-0/09	-3/10	confirm
Perceived ease of use has positive effect on customer tendency to use bank mobile service	0/38	3/92	confirm
Perceived ease of use has positive effect on perceived usefulness	0/41	6/18	confirm
Perceived usefulness has positive effect on customers tendency to use bank mobile service	0/36	3/39	confirm
Perceived security has positive effect on customers tendency to use bank mobile service	0/29	4/55	confirm

Results of structural equation model indicate all research assumption accepted in 95 percent possibility level. LISRE software estimate coefficient and test model, it presents adapt index (balance) that using them test model general balance. Balance appropriateness and enough data evaluated for model. That is .If balance index showed model balance, data to analyze and results of existent relation of model are appropriate and adequate [20]. Balance index for research model presented in table (2).

Table.2. model balance index

Appropriateness index	Chi-Square /df	RMSEA	GFI	AGFI	CFI	NNFI	NFI
Acceptable range	<5	<0/1	>0/9	>0/9	>0/9	>0/9	>0/9
Research result	2/79	0/05	0/9	0/91	0/96	0/95	0/93

## CONCLUSION

Today countries that hadn't rather high position in economy of world and they even didn't have comparable advantage, due to economy new reality and being electronic, they had fundamental steps toward presence in world competition economy. In this regard, important factor nowadays is use of flow trade in banking section that today due to flow trade advantages such as lack of place limitation least facility and rather high entrance of mobile cause welcome to mobile banking in the world.

Therefore, recent Research Try to present pattern to identify and evaluate effective factors on customers tendency to use bank mobile service.

Results of structural equation model test shoed in customers tendency to use bank mobile service effective factors are perceived security, perceived ease of use, perceived usefulness and perceived cost, as it illustrated, factor of perceived usefulness is one of the effective factors on customer tendency to use bank mobile service. According to this, bank marketing authority must provide several advantages to this technology rather other technologies, in addition to presence visit to bank for their customers, to lead them to use this technology. When there is no difference between bank visit and use of bank mobile, no relative advantage feels toward traditional banking (bank visit).bank mobile service usage cost is another debate in effective factors to customer tendency to use this service since many customers believe that usage cost of this service is more than presence in band and since purchase cost and consume time included this cost, hence, bank marketing authority must try to present appropriate facilities with less cost. Customers perception of ease of use of this technology influence by first experience of use. Therefore, first experience has determinant role in perception of customer.

Next experiences influence from it. Awareness of customers from security issues and standards of bank to increase public awareness from security dimension, also financial issuance against any abuse and probable mistake in payment issue receive money must take serous, so in future, develop systems and grow awareness of customers increase



customers tendency to use bank mobile service. Since customers are concern about security gaps that lead to enclosure of financial information, so banks must ensure bank transaction security through mobile bank using novel security tools. Therefore it is necessary to think how to increase Customers perceptions from security and keep personal private and ensure them from security of system, since perceived security influence on customer trusts.

#### SUGGESTIONS FOR FUTURE RESEARCH

According to performed investigations, propose that following research conduct in future.

Examine effective factors on other banks and private banks and compare them with public banks.

Examine effective factors on bank customer tendency to use other bank service.

Examine and measure customer satisfaction level of bank mobile service.

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