Investigation of Factors and Dimensions Influencing Banks Customers' Perceptions of E-payment in Tourism Bank in Tehran

Mitra Kani[1*], Jalal Haghighat Monfared[2], Mansoureh Aligholi[3]

[1]Department of Executive Management, Electronic Branch, Islamic Azad University, Tehran, Iran.
[2]Department of Management, Central Tehran Branch, Islamic Azad University, Tehran, Iran
[3]Department of Business Management, Faculty of Management, Central Tehran Branch, Islamic Azad
University, Tehran, Iran.

ABSTRACT

The main target of this research is to investigate factors affecting banks customers' perceptions of e-payment in Tourism Bank in Tehran City. Statistical population of the research included all banks customers who used internet services in tourism bank in Tehran (40000 people). Using Cochran's formula and Morgan table, 400 people were selected as ample size. The presentresearch is a survey in terms of methodology and it is a correlation study. Data were collected by means of a researcher-made questionnaire and using conceptual model and indices. Conceptual literature was considered in localization of three scales and questions and subscales were extracted, regulated. Validated and distributed. Quantitative findings of the research were obtained by statistical software of social sciences and structural linear relations used for verification of the hypotheses. This means that all factors had significant impacts on customers' perceptions of e-payment in Tourism Bank in Tehran City. Therefore, model relationships were verified significantly. Other results included ranks of dimensions and goodness of fit indices and appropriate approximation of the model.

KEYWORDS: customers' perceptions, e-payment, self-effectiveness of use of computer, Tourism Bank of Tehran City

INTRODUCTION

Considering the introduction of new technologiesinto data processing, bank services need new technologies. A review of developed countries experiences and growth of e-banking services can help predict formation and development of e-banking services in Iran. However, before implementation of e-banking in Iran, it must be noted that customers are used to traditional services and are certain about them. In fact, the present research tries to identify customers' needs and expectations from e-banking and helps marketers with preparing their marketing strategies (Vazifehdoost, Vaezi and Tavanazadeh, 2014). The main challenge of the contemporary organizations is survival and acquisition of stable results. Rapid changes, complex competitive business environments and customers' expectations (service receivers), new technologies and many other factors have made organizations to look for acquisition of competitive advantage. Development of IT for internet banking is one of the main subjects which has received a lot of attention by private and public banks. On the other hand, development and growth of ICT is a revolution in different dimensions of humans' lives and performances. This technology has changed individuals, organizations and governments attitudes and working methods and has created new industries, new jobs and creativity. Today's world is confronted with two great changes. The first change is astounding and unprecedented development of global economy and the second change is transfer from industrial economy to knowledge-based and information-based economy (wisdom-based economy). On the other hand, the world is becoming more and more electronic (Jalali Farahani, 2009). Undoubtedly, countries which fail to prepare necessary infrastructure for ICT will not be successful in accepting globalization process. Therefore, necessity for attitude towards future and global movements involves private and public banks to pay more attention to ICT and development of bank customers' tendencies to use e-banking services. Therefore, increase in service quality and increase in customers' tendency to use ICT and reduce in costs are main concerns of managers which must be fulfilled by using ICT instruments like internet, e-economy and e-commerce and development of cultural indices and infrastructure among bank customers and different categories of society. Therefore, new viewpoint towards managerial issues involves managers of Tourism Bank to consider the role of ICT in development of bank activities. The problem is that considering the wide use of computer and side equipment in bank systems ad structure, banks customers do not pay attention to e-payments. Therefore, the main concern of the author is that which factors affect customers of Tourism Bank branches perceptions of e-payment and what appropriate solutions can be used tomake much of ICT. Therefore, the main question of the research is "what are the factors which influence banks' customers' perceptions of e-payment in

Tourism Bank in Tehran City? "What is the degree of influence of factors which affect customers' perceptions of e-payment in Tehran City Tourism Bank branches?

Theoretical literature
E-government

Within the past years, customers' needs in relation to levels of service quality have received a lot of attention. High levels of service provision are a means for reaching competitive advantages. As customers' awareness of bank services increases, they become more and more sensitive to the quality of services they receive. In order to maintain a long-term relationship along with customers' satisfaction, banks should know how they can provide high-quality services (Tavanazadeh and Aligholi, 2014). Moreover, increase in customers' loyalty is an important subject which has received a lot of attention by managers and experts and counselors. Organizations which manage to obtain loyal customers become successful in acquisition of competitive advantage (Haghighi et al, 2012). For decades, the real value of a company was measured in terms of assets, tangible properties, factories and equipment of the company. However, researchers found that the real value of a company lies something beyond, in potential purchasers' minds (Heidarzadeh et al, 2011). In any organization, whether a production or a service company, the main factor for survival of the organization is customer, and if an organization fails to attract customers' loyalty will not reach long-term growth (Rahnama et al, 2012). One of the important concepts which has been investigated within the past few years and has been implemented successfully in some cases is electronic government. E-government is a digital virtual organization without walls and building which provide services online. Therefore, e-government is an important concept in information communities. Doctor Bradcorb defined e-government as trade between governments such that all countries become appropriate places for commerce. He believes that e-government has contributed to technology trend and provides a situation to establish effective relationship between government, citizens and institutes. E-government provides citizens with 24-hour services. Many governments have followed e-government and smart governors have tried to amend political, economic and social processes by means of new ITC technology and therefore serve customers more effectively (Shelag, 2003).

E-banking

e-banking enables customers to conduct many transactions electronically and via banks websites. In its beginning, internet banking was used only as a medium in banks which provide their services in websites. As technology grew and internet use became common in banking industry, banks developed their activities on internet such that many transactions like cheque trading, payment, sums transfer, reports and customers' accounts balance are provided immediately and electronically in any place and at any time. This is both to customers' benefit and banks benefit; from customers' viewpoints, bank service costs are reduced in this way because there will be no need for additional papers, employees, investment opportunity costs and occupation in other sectors. In fact, banking industry is not restricted to services offered over the counter but its activity is spread to multinational companies. Today, banks are main investors in e-system transactions and play important roles in financing and economic welfare. For short, it can be said that today, banking industry includes a wide range of economic activities and the greatest economic force sector of the society will be disabled without banking industry. Now, it must be known that what are the features of internet banking, immediate banking or e-banking? Many definitions have been mentioned for e-banking. Each definition emphasizes on a particular aspect of banking. The following definition is one of the most comprehensive definitions for e-banking: "e-banking is use of e-instruments in supplying bank products and services which is in part a subset of e-budgeting" (Klark, 2006).

E-banking and urban management

In any organization, whether a production or a service company, the main factor for survival of the organization is customer, and if an organization fails to attract customers' loyalty will not reach long-term growth (Rahnama et al, 2012). In the beginning of the third millennium, IT is the main pivot of development in the world and its achievements have affected people's lives. ICT includes a set of technology instruments and resources for creation, dissemination, storage and management of data. Traditional equipment like TV, radio and telephone have proved to be beneficial in development of suburban areas. Development of worldwide electronic network of computers which is called internet and wireless telephone have created an unprecedented flow of information, products, people, capital and thought. IT has an important role in increasing the speed and precision of different organizational activities and therefore improving productivity. Especially, organizations which have different departments in different geographical areas eliminate many of their problems using IT. Use of ITC plays an important role in solving problems in Tehran and other metropolitans. This plays an important role in urban management, urban economy, and production of jobs and improvement of citizen culture level (Harati, 2007).
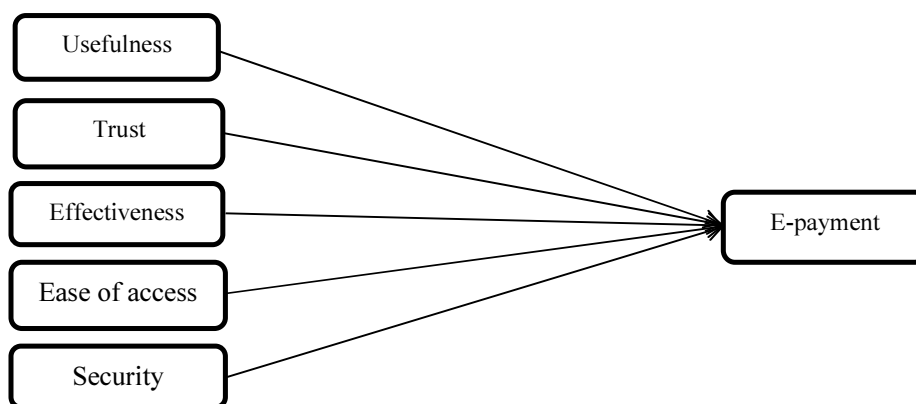
Figure 1: research conceptual model

Research hypotheses

1. customers' perception of usefulness has a positive influence on e-payment in tourism bank in Tehran.
2. customers' perception of trust has a positive influence on e-payment in tourism bank in Tehran.
3. customers' perception of self-effectiveness of computer use has a positive influence on e-payment in Tourism Bank in Tehran.
4. customers' perception of ease of access has a positive influence on e-payment in Tourism Bank in Tehran.
5. customers' perception of security has a positive influence on e-payment in Tourism bank in Tehran.

RESEARCH METHODOLOGY

The present research aims to investigate factors which affect customers' perceptions of e-payment in Tourism bank in Tehran. This research is an applied one in terms of goal. In terms of data collection method, it is a descriptive study. Further, the research is a correlation study considering data analysis.

Statistical sample and population

The statistical population of the present research included all customers of Tourism Bank in Tehran who used its internet banking. They were 30000 people in number. Cochran's formula and Morgan Table are used for determination of sample size. Sample size was equal to 400 people using Cochran's formula. Further, Cochran's formula is as follows:

$$n = \frac{N.z^2.p(1-p)}{N-1.d^2 + z^2.p(1-p)}$$

n= sample size
N=population size
Z=standard normal variable value which is equal to 1.96 in 95% certainty level.
d^2= approximation in estimation of population which is equal to 0.05^2
p= probability of presence of a characteristic
(1-p) = probability of absence of a characteristic
Therefore, the sample size using this formula was:

Cochran's formula: $n = \dfrac{1300 \times 1.96^2 \times 0.5(1-0.5)}{1299 \times 0.05^2 + 1.96^2 \times 0.5(1-0.5)} = 300$

After determination of sample size, the questionnaires were distributed among customers by means of stratified sampling and finally simple random sampling. Therefore, 400 questionnaires were distribute among respondents in terms of geographical area (north, west, east, south) and finally by means of simple random sampling method.

Data collection instrument

Questionnaire was used for collection of data. All questions were based on 5-point Likert scale. After preparation of the questionnaire, 30 questionnaires were distributed among users of e-banking as pretest. Cronbach's alpha was used for calculation of reliability coefficient. In order to investigate reliability, Cronbach's alpha was greater than 0.7 for all variables and total questionnaire (Cronbach's alpha coefficients have been shown in table 1). Moreover, content validity of the questionnaire was also verified by scholars. Therefore, the questionnaire was valid and reliable enough to be distributed among sample members.

Table 1: Cronbach's alpha coefficients

variables	Cronbach's alpha coefficient
Customers' perceptions of usefulness	0.78
Customers' perceptions of ease of access	0.82
Self-effectiveness of computer use (self-efficacy)	0.79
Customers' perceptions of e-payment	0.78
Internet banking security	0.79
Internet banking trust	0.78

Table 2 shows demographic information of respondents.

Table 2: research demographic variables

variable	dimensions	frequency	Frequency percentage
gender	male	244	61
	female	156	39
age	25-30	78	19.5
	31-36	134	33.5
	37-42	84	21
	43-48	68	17
	Above 49	36	9
education	High school degree and associate's degree	64	16
	Bachelor degree	204	51
	Master and above	132	33

Data analysis and hypotheses tests

Considering the fact that the model of the present research evaluates relationships between several latent variables simultaneously, we use structural equations modeling technique for testing the hypotheses. This method, is a statistical technique which contains other techniques like multivariate regression, factor analysis, and path analysis and its main concentration is on latent variables which are defined by observable measurable indices. The advantage of this method is that it evaluates relationships among variables simultaneously. Structural equations modeling technique has two sections: 1. Measurement model, 2. Structural model. measurement model links a collection of observed variables to latent variables. In contrast, structural model links latent variables via a collection of direct and indirect relationships. In order to conduct calculations for structural equations modeling technique, we used LISREL software (version 8.54). An important point which must be considered in structural equations modeling is that the model should be fit enough to be used for investigation of relationships among variables. This can be investigated via goodness of fit indices which are provided in the final output of LISREL.

First hypothesis test

"Customers' perception of usefulness has a positive influence on e-payment in tourism bank in Tehran. "
H0: customers' perception of usefulness does not have a positive influence on e-payment in tourism bank in Tehran.
H1: customers' perception of usefulness has a positive influence on e-payment in tourism bank in Tehran.

Table 6.one-sample t test output for the first hypothesis

Result	T value	Sig	SD	mean	Variable
Verified H_1	2.556	0.018*	.90986	.11804	Usefulness and e-payment

*certainty level 95% or (p<0.05)

Considering the value of one-sample t test (2.5) and significance level (0.05), it can be said with 95% of certainty that H0 which refers to the absence of a positive impact of customers' perception of usefulness on e-payment in Tourism Bank in Tehran is rejected and H1, which refers to the positive impact of customers' perception of usefulness on e-payment in Tourism Bank in Tehran is verified. Therefore, customers' perceptions of usefulness influence e-payment in Tourism Bank in Tehran. Moreover, because mean value is equal to 4.1, it can be concluded that customers' perception of usefulness influenced e-payment in Tourism Bank in Tehran.

Second hypothesis test

"Customers' perception of trust has a positive influence on e-payment in tourism bank in Tehran."
H0: customers' perception of trustdoes not have a positive influence on e-payment in tourism bank in Tehran.
H1: customers' perception of trust has a positive influence on e-payment in tourism bank in Tehran.

Table 7.output of one-sample t test for the second hypothesis

Result	T value	Sig	SD	mean	Variable
Verified H_1	2.235	0.026*	1.05630	992.4	Trust and e-payment

*=certainty level is equal to 95% or (p<0.05)

Considering the value of one-sample t test (2.2) and significance level (0.05), it can be said with 95% of certainty that H0-which refers to the absence of a positive impact of customers' perception of trust on e-payment in Tourism Bank in Tehran is rejected and H1, which refers to the positive impact of customers' perception of trust on e-payment in Tourism Bank in Tehran is verified. Therefore, customers' perceptions of trust influence e-payment in Tourism Bank in Tehran. Moreover, because mean value is equal to 4.2, it can be concluded that customers' perception of trust influenced e-payment in Tourism Bank in Tehran.

Third hypothesis test

customers' perception of self-efficacy has a positive influence on e-payment in tourism bank in Tehran.

H0: customers' perception of self-efficacy does not have a positive influence on e-payment in tourism bank in Tehran.

H1: customers' perception of self-efficacy has a positive influence on e-payment in tourism bank in Tehran.

Table 8: one-sample t test output for the third hypothesis

Result	T value	Sig	SD	mean	Variable
verified H_1	616.3	0.000**	17254.	4214.4	Self-efficacy of computer use and e-payment

**= certainty level is 99% or (p<0.01)

Considering the value of one-sample t test (3.8) and significance level (0.01), it can be said with 99% of certainty that H0-which refers to the absence of a positive impact of customers' perception of self-effectiveness on e-payment in Tourism Bank in Tehran is rejected and H1, which refers to the positive impact of customers' perception of self-effectiveness on e-payment in Tourism Bank in Tehran is verified. Therefore, customers' perceptions of self-effectiveness influence e-payment in Tourism Bank in Tehran. Moreover, because mean value is equal to 4.3, it can be concluded that customers' perception of self-effectiveness influenced e-payment in Tourism Bank in Tehran.

Fourth hypothesis test

customers' perception of ease of access has a positive influence on e-payment in tourism bank in Tehran.
H0: customers' perception of ease of accessdoes not have a positive influence on e-payment in tourism bank in Tehran.
H1: customers' perception of ease of access has a positive influence on e-payment in tourism bank in Tehran.

Table 9.one-sample t test output for the fourth hypothesis

Result	T value	Sig	SD	mean	Variable
Verified H_1	617.3	0.000**	31554.	123.4	Ease of access and e-payment

**=certainty level is 99% or (p<0.01)

Considering the value of one-sample t test (3.76) and significance level (0.01), it can be said with 99% of certainty that H0-which refers to the absence of a positive impact of customers' perception of ease of access on e-payment in Tourism Bank in Tehran is rejected and H1, which refers to the positive impact of customers' perception of ease of access on e-payment in Tourism Bank in Tehran is verified. Therefore, customers' perceptions of ease of access influence e-payment in Tourism Bank in Tehran. Moreover, because mean value is equal to 4.3, it can be concluded that customers' perception of ease of access influenced e-payment in Tourism Bank in Tehran.

Fifth hypothesis test

Customers' perception of security has a positive influence on e-payment in tourism bank in Tehran.

H0: customers' perception of securitydoes not have a positive influence on e-payment in tourism bank in Tehran.

H1: customers' perception of security has a positive influence on e-payment in tourism bank in Tehran.

Table 10.output of one-sample t test for the fifth hypothesis

Result	T value	Sig	SD	mean	Variable
verfiedH_1	.8613	0.000**	.65831	.39644	Security and e-payment

**=certainty level is equal to 99% or (p<0.01)

Considering the value of one-sample t test (3.8) and significance level (0.01), it can be said with 99% of certainty that H0-which refers to the absence of a positive impact of customers' perception of security on e-payment in Tourism Bank in Tehran is rejected and H1, which refers to the positive impact of customers' perception of security on e-payment in Tourism Bank in Tehran is verified. Therefore, customers' perceptions of security influence e-payment in Tourism Bank in Tehran. Moreover, because mean value is equal to 4.3, it can be concluded that customers' perception of security influenced e-payment in Tourism Bank in Tehran.

- Recommendations and solutions

As a summation, the following recommendations are provided based on research results:
1. considering the results of the first hypothesis test which showed that customers' perceptions of usefulness of internet banking service is the main factor influencing customers' perception of trust in internet banking and e-payment, the following recommendations are provided for managers and officials of the Tourism Bank:
- because maintenance of customers and persuasion of them to invest more in banks are necessary for survival of banks in competition, they should implement special plans for increasing people's knowledge about use of services and programs of internet banking system:
- One of the activities which can be conducted for improvement of informing power of banks is launching a website which can provide information and services for customers.
- Cultural infrastructure should be considered via training for two groups: a) those who provide services via electronic system (like businessmen and employees of financial institutes); and those who use this system (like customers of financial institutes);
- The culture of using the instruments and services should be taught using public media and advertisements.
2. Considering the results of the second hypothesis test which showed that customers' perceptions of trust in internet banking influences e-payment in tourism bank in Tehran, the following recommendations are provided for the managers and officials of Tourism Bank:
- commitment to serving in all organizational levels: good service provision should not be limited to only managers or employees but also all individuals in an organization should take part in serving customers. Individuals who serve customers will not be able to satisfy customers without financial and managerial support. Inappropriate behavior of a bank employee may spoil other employees' attempts. Commitment to service provision should be real and not a slogan or advertisement instrument.
-reducing duties of staff departments and submitting them to supervision and programing departments: when internet banking system expandsand different specializations form in this system, a manager cannot have the power of coordination and commanding in all areas without other individuals' help.
3. Considering the results of the third hypothesis test which showed that self-effectiveness of computer use influences e-payment in Tourism Bank in Tehran City, re-engineering is important in Tourism Bank in Tehran: re-engineering views internet banking from a completely new aspect. According to this new approach, people or customers are main beneficiaries of internet banking system. Therefore, they should change their internal structure and processes so that all their might and energy goes to banking system and responding to social needs and expectations.
4. Considering the results of the fourth hypothesis test which showed that customers' perceptions of ease of access is an important and effective factor, managers and officials of Tourism Bank should pay attention to the followings:
- An integrated and comprehensive attitude should be created among decision-makers, planners and policy-makers and separate management should be avoided in order to maintain national benefits in the long run.
- clear executive instructions and rules should be prepared.
-creation of telecommunication and security structures should be created in national internet networks.
- localization of culture and equipment used for establishment of the phenomena: considering the fact that this type of technology is an imported technology, it is necessary to prepare and execute programs for its localization so that we can prevent from a non-congruent phenomenon in society.
5. Considering the results of the fifth hypothesis test which showed that security in e-banking influences e-payment in Tourism Bank, the following recommendations are made:
-presence of customer in a bank branch is costly for a bank. Development of e-services based on comprehensive banking allows for momentary control of loss and profit and trend of absorption of resources and granting loans. Therefore, provision of electronic banking reduces costs in the long run. Other advantages of implementation and launching of comprehensive bank systems include: ease of access to information (intra-organizational and inter-organizational), improvement of ability to respond to market needs and changes, increase in response

speed facilitation of processes, increase in the ability to evaluate banks performance, ability to follow customers, products, users, documents, and transactions based on recovery indices and increase in supervision on bank operations and … .many statistics which are provided, we do not know whether they are true or false. Even process does not help update information.

REFERENCES

Clark, Root Kalvin (2006), concepts and theories in electronic education, translated by Khosro Mehdipour Atayee, Tehran, published by cultural-artistic institute of Dibagaran.

Haghighi, Mohammad; Dorosti, Ali; Rahnama, Afshin; Hoseinpour, Ali., (2012). "Evaluation of factors affecting customer loyalty in the restaurant industry" African Journal of Business Management, 6(14), 5039-5046

Harati, Saman (2007), "solution of urban problems via ITC", Tehran: journal of international communications center, number 46.

Heidarzadeh Hanzaee, Kambiz; Khoshpanjeh, Mahsa & Rahnama, Afshin., (2011). "Evaluation of the effects of product involvement facets on brand loyalty" African Journal of Business Management Vol. 5(16), pp. 6964-6971.

JalaliFarahani, Ali Reza (2009), public services and e-communications, educational and research monthly of information, second year, number 18.

Rahnama, Afshin., Alaei, Abbas., Shafaee, Javad., Ariana, Ali., (2012). "Evaluation of Relationship Marketing Dimension Effect on Degree of Customer's Loyalty of Insurance Industry in Iran" Journal of Basic and Applied Scientific Research, 2(2), 1842-1848.

Shelag, Hefrenan (2009), new banking in theory and action. Translated by: Ali Parsaeean, Ali Reza Shemirani, published by Research and Programming Department, Sepah Bank.

Tavanazadeh, Somayeh., Aligholi, Mansoureh., (2014). "Investigation of Relationship between Service Quality Dimensions and Customers' Satisfaction (case study: Saderat Bank Branches in Tehran City, Iran)" Mediterranean Journal of Social Sciences, Vol 5 No 20, 3116-3120.

Vazifehdoost, Hossein; Vaezi, Maryam & Tavanazadeh, Somayeh., (2014). "Investigation of the Role of Innovation Dimensions and Knowledge-Based Trust in Accepting Mobile Banking" Journal of Applied Environmental and Biological Sciences Vol 5(2), 106-112.

Vazifehdoost, Hossein., Rahnama, Afshin., Mousavian, Seyed Javad., (2014). "Evaluation of the Impact of Brand Purchase Involvement, Satisfaction, Experience and Brand Trust on Loyalty to Brand" Mediterranean Journal of Social Sciences, Vol 5 No 20, 3054-3063.