

# The study of the relationship between perceived quality of electronic services and Melli bank customers' citizenship behavior in Ilam Province

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## Abstract

The miraculous development of communication and information technology and its application to increase the speed and quality of provided service are the characteristics of the present century. In fact, it can be said that e-banking is one of the achievements of e-commerce and due to the increasing growth of e-commerce size in world and business's need to do simple, fast and accurate banking operation to transfer financial resources, e-banking has an essential role in e-commerce. Customer's citizenship behavior is related to the extra role behavior. The customer's voluntary job and even customer's citizenship behavior as a social behavior agree to suggest a means to service organizations in which a competitive edge can be achieved without any cost. The present study has been developed to examine the relationship between perceived quality of e-service in bank and national bank customer's citizenship behavior in Ilam province. This study includes 196 national bank customers of Ilam province, who were obtained through sampling formula Cochran. Data collection method was done by standard questionnaire of Bivegant (2008) which covered the questions related to the customer's citizenship behavior and the questions related to the perceived quality of bank's electronic services was developed by the researcher and were confirmed by eight certified teachers. Cronbach's alpha was used to assess the reliability of the questionnaire which its amount for customer's citizenship behavior was 0.835 and for perceived quality of electronic services was 0.823 which indicates the high reliability of the questionnaire. The structural equation model (Lisrel) was used for data analysis. The results indi-

cated a significant and positive relation between the perceived quality of e-service in bank and customer's citizenship behavior while the relationship between the dimensions of perceived quality of electronic services was one-way and without balance. Also, only three dimensions of speed of services providing, responsiveness and reliability of services providing on customer's citizenship behavior show the positive and significant relationship and there is no meaningful relationship between other two dimensions namely the service variety and ease of electronic services providing on customer's citizenship behavior.

**Keywords:** E-banking, perceived quality of services, customer's citizenship behavior, National Bank, structural equation.

## Introduction

Competition, technology, economic and social trends and needs, and demands of customers are the major aspects of changing in the present world in which the needs, wants and expectations of customers due to their fundamental and vital impact on the organization, have the especial priority and importance. However, other aspects of changing were strongly influenced by change in customers' interests and desires and refers to translation and interpretation of their desires. In fact, the greater the environmental uncertainty and instability requires the greater attention to customer's needs for survival, continuity and development of organizations. The central focus and attention to customers' desires is the prominent feature of organizations in this decade and the next decades. In fact, custom-

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er satisfaction is a result that is obtained from the comparison of customer's before purchasing from the expected performance with actual performance perceived and the paid cost (Beerli, 2004, p. 256).

According to the comprehensive growth of technology and information technology in all areas of life and also the facilities that are provided to people by this technology, the demand for making the life and routine affair electronic is increasing through making electronic and virtualization of the banking affairs. The main advantage of virtual banking in information technology era is to facilitate and expand the electronic commerce. Virtual banking is a part of e-banking that provides all its services as online and virtually and provides area to eliminate the physical branch (Moein Zadeh, 2012, p.20).

### Statement of Problem

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The miraculous expansion of communication and information technology and its utilization to enhance the speed and quality of provided service are the characteristics of the present century. The service quality and customer's satisfaction are considered as strategic issues for services organizing. In fact, it can be said that e-banking is considered as one of the achievements of e-commerce and e-banking has an essential role in e-commerce due to the increasing growth of e-commerce size in world and business's need to do simple, fast and accurate banking operations to transfer financial resources. Application of information technology in e-banking industry leads to a reduction of geographical and temporal distance between the bank and customer as well as the cost of providing banking services and transfer of money and an increase in competition between banks and enhance service quality and ultimately the creation of changes in the cost structure of banks. Consequently, the banking industry are being optimized, creating the proper context and culture making in the context of e-banking, which is the most important factor in advancement of mentioned goals. In fact, e-banking is essentially referred to providing possibility for customers to access to banking services through the use of safe mediators and without physical presence (Kahzadi, 2003). The use of information and communication technology in the banking industry is known as electronic banking (Shakeri, 2011). Hassan Zadeh et al (2009) have defined e-banking as the use and demonstration of various services tech-

nologies, the expansion of ATM machines, the direct delivery of bills, the automatic payment, the electronic transfer of funds and home banking. Information and communication technology points to the technologies such as the internet, extranet, and other technologies that include the range and some basic infrastructure until the technologies that improve the services and business operations of an organization (Gupt, 2008). According to the Misra, e-banking refers to the use of information technology that allows bank customers and other beneficiaries to interact with bank without intermediate through variety of communication channels such as internet, etc and other similar technology. Also, Lau (1997) has defined electronic banking as providing banking services through computer network with free and direct access to the customer's home or personal address (Brynjol Fson, 1996). Without being aware of public culture and enough education as well as lack of technical infrastructures are the e-banking concerns in Iran especially in Ilam province. This study tries to take an effective step to develop and promote e-banking among bank customers and all people in addition to improving these problems and developing public culture of using electronic banking through the introduction of its advantages.

### The Importance and Necessity of Research Conducting

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Investment in information technology has especial importance for managers, economic investors and for researchers. Information technology has recently been one of the productivity sources in the efficiency function and its role in the economic performance of enterprises, industries has been investigated (Papai Nayo et al, 2007).

This subject is important because e-banking facilitate the citizenship performance and behavior of banks customers and their satisfaction. IT development has had positive effects and consequences in various economic fields and communities that take advantages of these technologies. Modern business requires the proper tools and infrastructures for development of economic process. Banks are one of the most important factors in business dealings. Banks play a key role in the business world with establishing intimate and close relationships with people and that is why they are always trying to expand their services in both quantitative and qualitative aspects

to outdo competitors. Entrance of banks to large areas of information technology makes it possible for them to have had significant mutations to provide and expand their services. They introduce modern methods to customers every day by the use of information and communications tools until customer receive their required services faster and better than the past. In fact, the information and communication technologies help banks to achieve the permanent slogans of customer orientation. Automated banking system with proper training of staff and customers, in addition to giving an opportunity to banks to provide more favorable services, increase customers' trust to use the e-banking system.

The technology-oriented flow in banks indicate the concerned attention and new view in the area of economic and trade issues and consequently banking problems. It is not far from the mind that contemporary global developments especially, in the realm of the economic are resulted from the convergence of flaws and the various issues and in the meantime, banking has been also influenced by developments like information revolution, capital flows, technological and organizational developments. Electronic banking is considered as a general concept in digital development of banking services and therefore, the detail looking and personal infers may affect on its recognition. The concept of electronic banking and its effectiveness are still not fully known for many people and therefore, an optimal utilization of conducted investments have not been done for its development. On the other hand, the management challenge has always confronted the new systems and technologies with problems and various issues. Achieving to a holistic and massive approach in management of financial enterprises can be the development ground and the general trend to use electronic banking. Hence, the initial introduction of electronic banking is not only better, but also its necessity is undeniable. Given that, the limited researches were conducted in this regard, so, the researches gaps exist in the country, particularly in the area of Ilam which make it necessary to conduct a study on the relationship between electronic banking and customer's citizenship behavior.

## Theoretical Literature

### *Definition of E-Banking*

Electronic banking is the term used to cover a process in which customer performs his banking interactions including both transactional and non-

transactional by the use of electronic tools, so that, there is no need to go to a branch. In this method of banking, thanks to the technology provided, there is no limitation of time and space to provide service for customer (Najafi, 2012, p. 16). E-banking is a new way for customers of banks and financial institutions to have access to their accounts, pay their bills, control their money and use other various services. Electronic banking refers to the use of information technologies to the electronic transfer funds that are replaced by paper-based transactions.

Electronic banking is actually the peak use of information technology for the removal of both time and space constraints from the banking services (Mir Ahmadi, 2006, p 24). According to the above definitions, it can be inferred that all emphasized on customers' easy access to bank accounts, without time and space limitation (Kahzadi, 2003).

### *Benefits of E-Banking*

Benefits of e-banking can be considered from two aspects of customers and financial institutions. From the customer's perspective, it can be pointed to save costs, time and access to multiple channels for doing the banking operations.

From the perspective of financial institutions, it can be named features such as enhancement of banks' reputation in providing innovative, retaining customers despite the spatial changes, creating opportunities for seeking new customers in target markets, expanding the geographical range of activities and establishing perfect competition condition. The benefits of electronic banking can also be investigated from the perspectives of short-term, medium-term and long-term. Competing equally, keeping and absorbing the customer are some benefits of electronic banking in the short term (less than one year) and mid-term (less than 18 months). Benefits of e-banking include integrating different channels of information management, extensiveness of customers' range, guiding customers to the suitable channels with the desired features and reducing costs, reducing transactions processing costs, providing services to the customers of target market and creating revenue which are long-term benefits of electronic banking (Seyed Javadin, 2006, p. 239).

### *Major Obstacles to the Development of E-Banking*

The biggest obstacle to the development of e-banking is that there is no proper communication platform for data transmission. As you know about

services like water, electricity, gas, mobile etc, the relevant organizations create the main way and subscribers only by paying subscription fee would benefit from these services. However, in the case of Telecom lines, applicants who are actually the banks themselves have to create this way with enormous costs.

There is a distance among the decision-making managers and decision-maker professionals of information technology within organizations because, in information technology sector, despite the existence of some professional units (such as medicine) all are priest and owner of diagnosis instead of being inexpert and imitator individuals.

- Weak maintenance management and use of high-level professionals in IT sector to provide banking soft ware platforms.

- The lack of enough attention to cultural issues
- The lack of enough attention to security issues
- The restrictive laws of office and employee resistance in front of change
- The users' lack of adequate knowledge about the systems and their advantages (Amadeh & Jafar Pour, 2007)

- Solutions for Improvement of E-Banking System

The available solutions in the area of improving money and electronic banking in two general pivots include:

### 1. Policymaking and Law Codification

- Job creation development with attitude of expertise oriented in the field of electronic banking
- Codification of policy guidelines for the development of peer banks in the context of electronic banking
- Identifying the required laws and regulations and follow them for their adoption
- Supporting the activity of other economic institutions
- Creating a strong relation with third institutions like insurance
- Seriousness of bank management to realize the electronic service
- Temporal planning for the gradual implementation of e-services
- Monitoring sovereignty and coordinated enforcement by the central bank for the implementation of systems development

### 2. Informing, Education and Culture Making

- Establishing and developing information centers
- Promoting the e-business and e-marketing culture
- Encouragement, persuasion and attraction of public confidence in the use of novelty instruments

of electronic banking

- providing practical training to customers through mass media
- Holding training courses to employees and bank managers in recognition of electronic banking systems
- Incorporating introduction sector and the use of electronic banking services in ICDL courses
- Homogeneous development of expert forces in banking network of country

## Service Quality

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Services quality in the area of products and physical goods has long history but the quality discussion has not too long history within the scope of services. Services have characteristics that make them different from the goods. These properties from the perspective of Arasli (2002) and Hizer Vrandar (1999) include the intangibility, perishability, high mental involvement of customer, simultaneous production, consumption and homogeneity. The services quality is rotated around the idea of the customer comparison outcome between own expectations with their understanding of the desired service performance so that Lehtinen (1982) has provided three-dimensional view of the services quality including interaction, physical and incorporate. Ladnan and his colleagues have mentioned quality as the combination of customers' understanding of two dimensions of the process quality and outcome quality that these observations are not dissimilar to the conceptualization of Gronroos (1984), one who emphasized on two major dimensions of service quality namely technical quality dimension, what customers receive and functional quality, how a service is provided, in his model (Karvana et al, 1960, 2000). Increasingly, service firms have focused their attention on improving the quality of customer services.

## Customer's Citizenship Behaviors

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In recent years, much attention has been paid to the behavior of the citizen, customer in the marketing and management literature. Like the organization's employees, customers may commit in the variety of conducted behavior of citizen in a particular organization. Bowen, (1986) has discussed that the central difference between the services and manufacturing companies is that customers often have a physical presence when providing services,



completely different from the manufacturing companies where customers rarely have a physical presence. So, both customers and employees form the human resource in services organization. Customers often do the work that might be performed in other forms by employees so that customers may be even replaced by employees in the basic service organization (Buckley, 2004). Previous researches suggest that service organization should really consider customers at least in some scenes, as employees or members of the organization. Based on these descriptions, it is possible that the service customers can provide the customer's citizenship behavior as employees. So, the research of organization customer's citizenship behavior can commonly be used in the area of customer. In management literature, the organization customer's citizenship behavior is officially as the behavior of the individual that is discretionary, not explicitly or is directly recognized formal by the reward system. Similarly, improving the effect of organizational role, the customer's citizenship behavior can be considered as discretionary behavior that does not require the production or delivery of services but, in general, supports the service organization (Gross, 2005).

Many terms are used to describe the citizenship behavior, including discretionary behavior of the customer, voluntary performance of organizational citizenship customer on a part of customers, multi-sectional behavior of customer (Arena, 2005). Services literature also offers various forms of customer's citizenship behavior.

Gross (2005) expresses three aspects of customer's citizenship behavior: 1. providing answers to the organization, namely provides the requested information to the organizations to help them deliver their services. 2. helping other customers, closely coordinate the friendship dimension found in the customer's citizenship behavior. 3. Suggesting that these commercial suggestions are relevant to friends and family members.

## Research Hypotheses

### *The Main Hypothesis*

*There is a significant relationship between the perceived quality of electronic services and customer's citizenship behavior.*

### *The Sub-Hypotheses*

*- There is a significant relationship between the service variety and customer's citizenship behavior.*

*- There is a significant relationship between the speed of service providing and customer's citizenship behavior.*

*- There is a significant relationship between the responsiveness and informing and customer's citizenship behavior.*

*- There is a significant relationship between reliability and customer's citizenship behavior.*

*- There is a significant relationship between ease of services providing and customer's citizenship behavior.*

## Methodology

### *Population and Sample*

The present study has an applied purpose and in terms of data collection method is descriptive-survey. The statistical population of this study was the national bank customers of Ilam province. Due to the lack of precise information about the number of customers, population was considered unlimited and the Cochran sampling formula was used in unlimited population and sample size were obtained 196 subjects. In this study, sampling method was the simple random sampling.

### *The data collection tool*

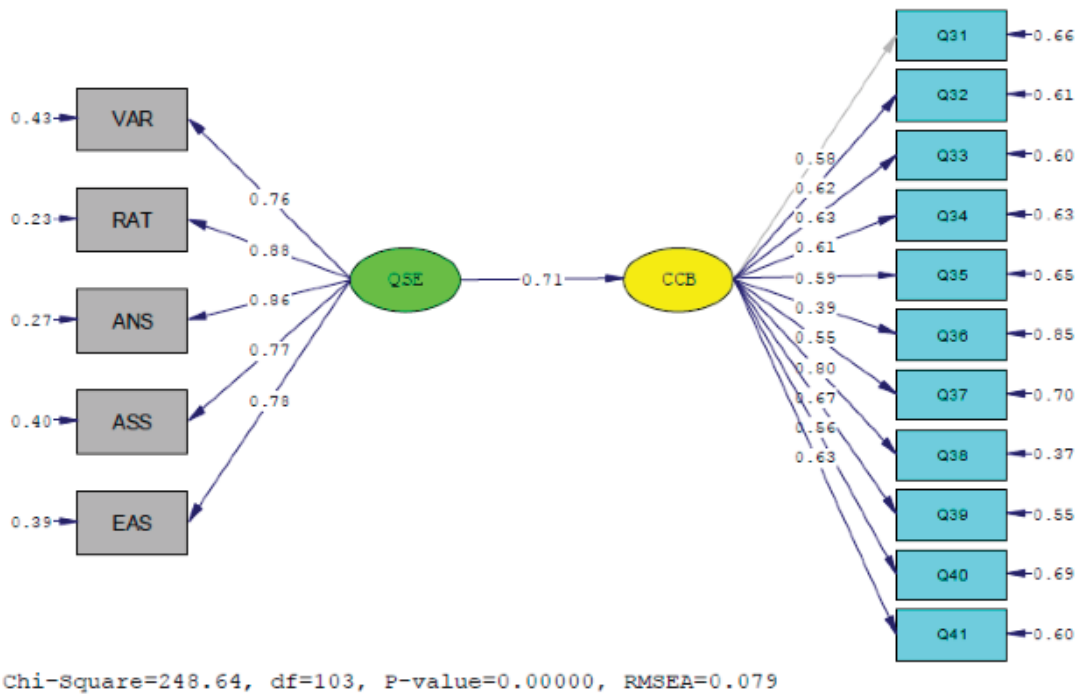
In this study, questionnaire was considered as the best way for data collection because of the research type and as well as the widespread statistical population and consequently the complexity of the statistical sample and for faster access to the opinions of respondents. In this study, a package with two questionnaires was used. First, Bivegant's questionnaire to measure the customer's citizenship behavior (2008), with 11 questions, then the questionnaire of perceived quality of electronic services which is the researcher maker questionnaire with five dimensions including variety of services, speed of service providing, responsiveness and informing, reliability and ease of service providing.

### *Validity and Reliability of Questionnaire*

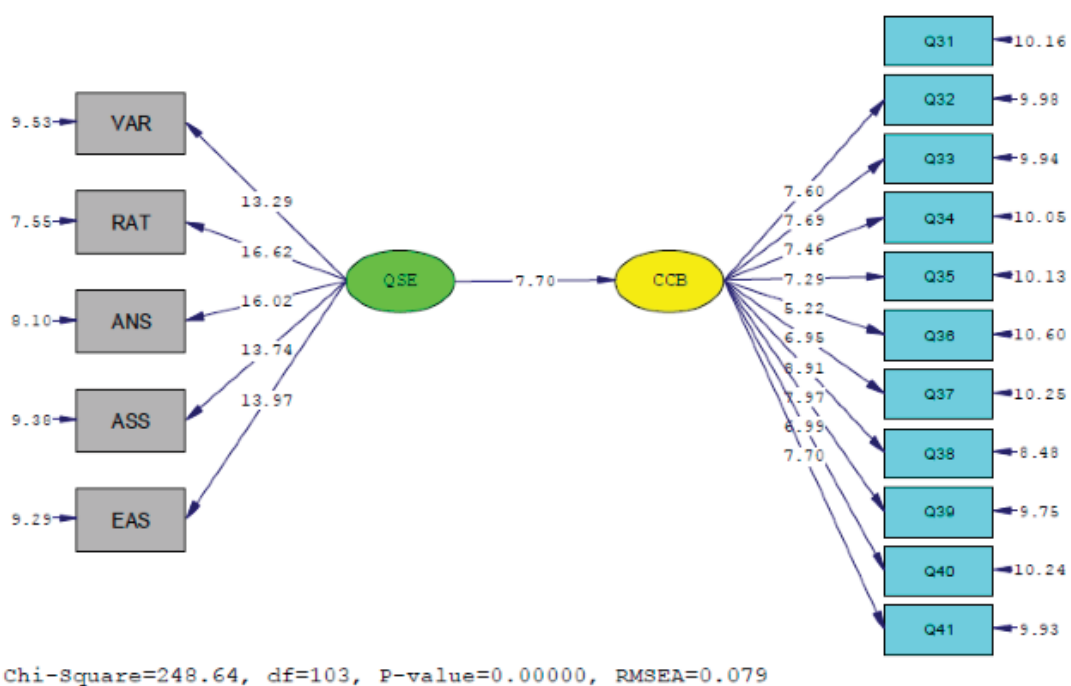
Regarding the validity of the questionnaire, as the customer's citizenship behavior questionnaire belongs to Bivegant (2008), it can be a standard questionnaire. Also, it was confirmed by management experts and the perceived quality of electronic services questionnaire, supervisor and adviser as well as the 8 prominent professors. In present study, Cronbach's alpha method was used to calculate and estimate the reliability of the questionnaire. The amount of reliability index varies between zero and one, and its results can be interpreted as the following table:

**Table 1. Reliability coefficient of the questionnaire scales**

Variables	Dimension	Number of items	Reliability coefficient
Perceived quality of electronic services	Variety of services	4	0.825
	Speed of service providing	6	0.790
	Responsiveness and informing	8	0.781
	reliability	6	0.823
	ease of services providing	6	0.785
Customer's citizenship behavior	—	11	0.835



**Figure 1. Significant model of main hypothesis of research in the state of standard estimate**



**Figure 2. Significant model of research's main hypothesis in the state of significant coefficients**

## Research Findings

In this study, data were analyzed through the structured equation technique and LISREL method.

### The research's structural model investigation (main hypothesis)

In this part, it is sought to prove the main hypothesis. The model of main hypothesis is presented in which the accepted hypothesis is rejected with regard to the significant numbers.

### The results of main hypothesis

The main hypothesis: there is a significant relationship between the perceived quality of electronic services and customer's citizenship behavior.

Statistical hypotheses testing are:

H0: There is no significant relationship between the perceived quality of electronic services and customer's citizenship behavior.

H1: There is a significant relationship between the perceived quality of electronic services and customer's citizenship behavior.

$$\begin{cases} H0: \rho_{xy} = 0 \\ H1: \rho_{xy} \neq 0 \end{cases}$$

H1 claims that, there is a significant relationship between the perceived quality of electronic services and customer's citizenship behavior. Based on the Table 2, the coefficient correlation between two latent variables of the perceived quality of electronic services and customer's citizenship behavior is equal to 0.71 and with regard to the obtained t (7.70) which is greater than 1.96, therefore, H0 is rejected and H1 is confirmed. So, it can be concluded that there is a significant, direct and positive relation between the perceived quality of electronic services and customer's citizenship behavior. Consequently, the research's main hypothesis is confirmed.

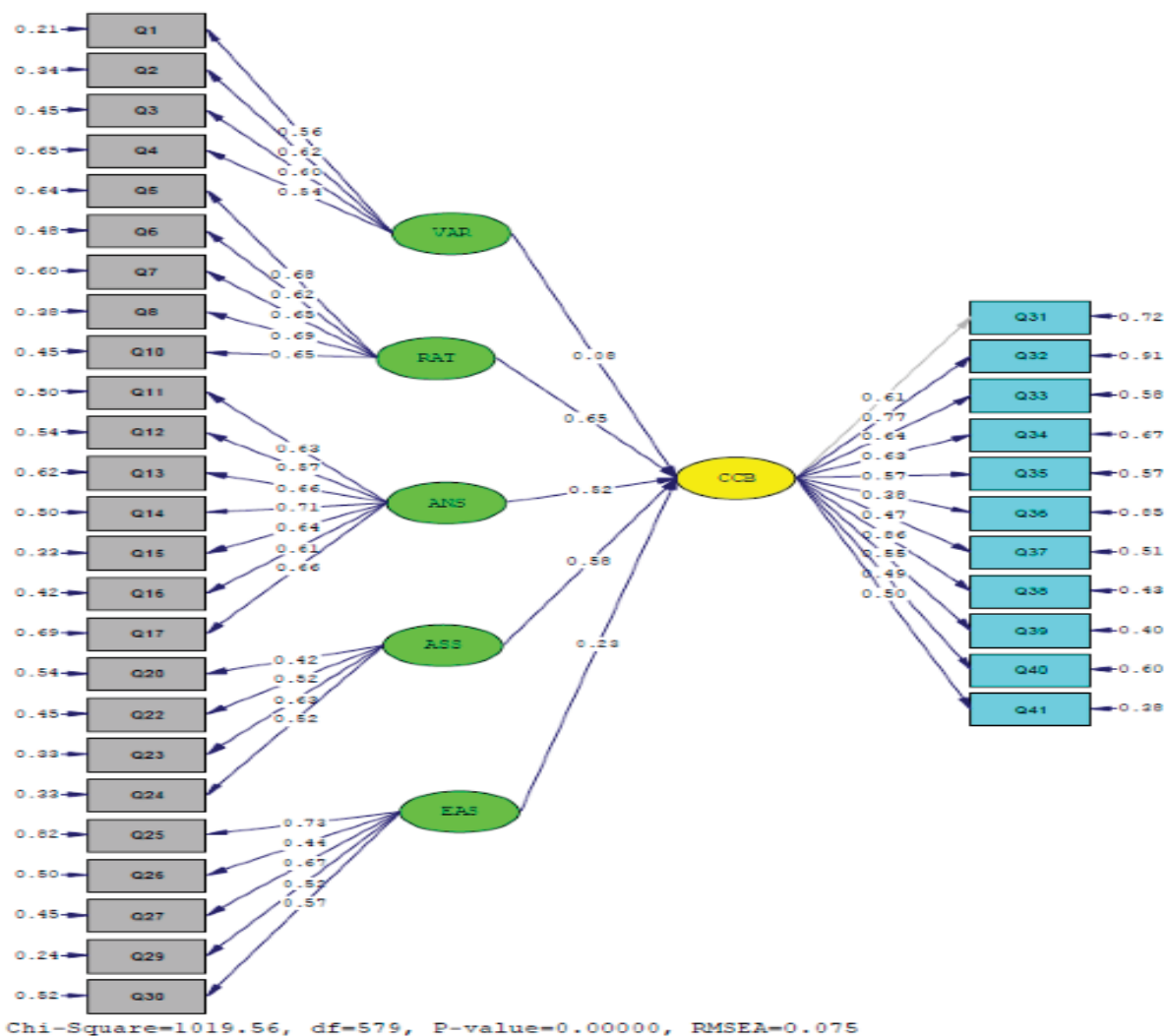


Figure 3. Model in the state of standard estimation.

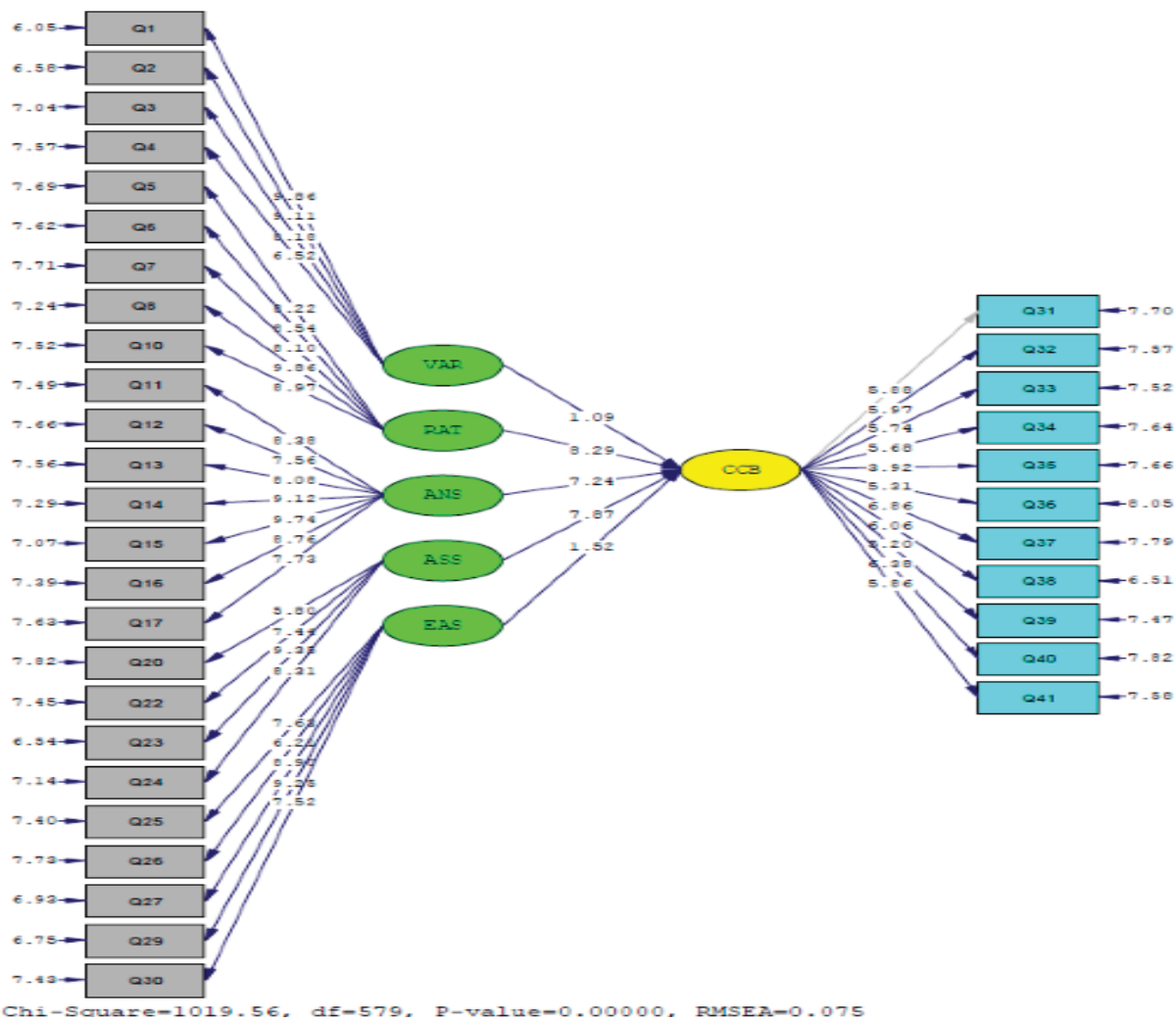


Figure 4. Model in the state of significant coefficients

Table 2. Results of structural equation model analysis: the main hypothesis

Coefficient correlation	t	Independent variable	dependent variable	Test result
71%	7.70	The perceived quality of electronic services	Customer's citizenship behavior	H0 rejected

**Evaluation of the structural model (Path analysis) research (sub-hypotheses of the study)**

In this part, it is tried to prove the sub-hypotheses of study. Model of sub-hypotheses is presented in which the accepted hypotheses are rejected due to the significant numbers.

**Evaluation of sub- hypotheses and their results**

As can be seen from the table 3 and according to the T-VALUE obtained from the five sub-hypotheses, three hypotheses of provided services' speed, responsiveness and informing and reliability had the significant numbers greater than 1.96, and were accepted with numbers of 8.29, 7.24 and 7.87

respectively. Two hypotheses of services variety and speed of service providing with significant number less than 1.96, respectively, 1.09 and 1.52 were rejected.

**Recommendations and suggestions**

Modern banking as one of the critical infrastructures of e-commerce has a key role in the distribution of banking services among people. This kind of banking is not only the bank's new service development with rely on the development of information and communication technology tools, but policymakers of banking system have a heavier duty than physical development and policies adoption, same and accelerating guidelines are their great



tasks. On the other hand, people's expectation of electronic banking is to get safe, fast, low cost services and the lack of one of these factors in services receiving make people distrust and pessimistic toward these services; organization should move step by step, in order to move towards creating a customer's citizenship behavior. Because the customer's citizenship behavior is not a one-day process that can be quickly entered into the organization as a new technology, but it is a continuous and time consuming process. If organizations definitely take step to create customer's citizenship behavior, in this case, the efficiency and productivity of the organization will potentially increase and consequently, will enhance their performance. Application of pol-

icies to encourage customer's citizenship behavior has a huge impact on strengthening customer's citizenship behavior. Strengthen customer's citizenship behavior like any other individuals' behavior needs to be encouraged. Organizations can facilitate the creation of customer's citizenship behavior by creating orderly and logical systems to provide various services. Accordingly, most organizations give annual rewards to their employees to encourage citizenship behavior until they have partly had tendency to do extra-role behaviors, not individuals just have positive personal characteristics. Melli bank managers should try to flourish the citizenship behaviors in bank employees by imposing an appropriate incentive policies and strategies.

**Table 3. Evaluation of sub- hypotheses and their results.**

Sub-hypotheses	Standard coefficient	T-value	Independent variable	Dependent variable	Test results
1	0.08%	1.09	Variety of services	Customer's citizenship behavior	Rejection of hypothesis
2	0.65%	8.29	Speed of service providing	Customer's citizenship behavior	Acceptance
3	0.52%	7.24	Responsiveness and informing	Customer's citizenship behavior	Acceptance
4	0.58%	7.87	reliability	Customer's citizenship behavior	Acceptance
5	0.23%	1.52	Ease of service providing	Customer's citizenship behavior	Rejection of hypothesis

Therefore, the following recommendations are provided in line with the diversity and accelerating the modern banking services process.

1. It is recommended that Melli bank of Iran take serious action towards the development of national branches and increasing its activities such as exporting the variety of urban transportation ticket, payment of various bills, and tax and customs toll

2. Installation of ATM devices in cities in order to meet customers' needs in a non-office hours and to avoid their overcrowding in bank branches.

3. Preparation and presentation of electronic services package of Iran's National bank for the target customers.

4. Lack of technical infrastructure development (bandwidth) is one of the major concerns of customers and banks, therefore, it is suggested that banks, particularly, Melli bank of Iran take serious action to accelerate the electronic services providing to customers.

5. It is recommended that the Melli bank of Iran take necessary action to increase the power of the

central servers in order to speed up the electronic transaction process

6. Intensive and continuous environmental competition, changes in the demand, needs, interests of customers are the most critical challenges facing organizations, so, modification of systems and methods is considered a major factor in respecting to customers, therefore, it is proposed that, Melli bank of Iran modifies the unnecessary methods (design and promote digital signature)

7. National thunder systems, Azarakhsh, Kanne Javaneha have various capabilities;

but have not been detected well among customers so far. Therefore, it is recommended that, the serious action to be taken to introduce them through various ways, including electronic festivals by Melli bank of Iran.

8. One of the challenges facing e-banking is the security issue; it is suggested that, banks prepare the latest advanced electronic version and introduce them to customers.

9. Lack of awareness of customers about the e-

banking rules brings irreparable damage on security dimensions and makes them discourage to the use of electronic services; therefore, it is suggested that, the security issue to be taught to customers and society populations through mass media and bank branches.

10. Designing and preparation of core banking software for banks in order to have easy access to a variety of banking services and to satisfy customers

11. Attraction and retention of specialist human resources in the area of e-banking

12. Removing restrictions caused by credit regulations

13. Trying to create a comprehensive banking system with features of full coverage of branches, full coverage of banking products and services, instant expandability from both quantitative and qualitative dimensions, responsiveness and flexibility to the regulatory requirements and new expectations.

14. Try to establish an especial electronic network

15. Surrender a part of required services of customers to the private sectors and imposing complete supervision over their activities.

16. Training and promoting customers to insure the electronic payments.

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