

## Providing a model of key factors affecting behavioral intentions of using e-banking services in Tejarat Bank

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*The present study aims to identify the factors affecting the behavior of customers' use of e-banking services of Tejarat Bank in Tehran. A qualitative method and an in-depth interview have been applied to achieve the research goal. The information and data collected from the interviews have been analyzed using open coding and axial coding. Then, the initial indicators of the model of using e-banking services were identified. In the next step, e-banking experts and specialists were asked to comment on the indicators obtained from the interviews, using the Delphi technique. The final results demonstrated that trust in banks, perceived security, ease of use, perceived utility, the impact of society, and perceived risk are considered as indicators affecting users' behavioral intentions and ultimately their use behavior.*

**Keywords:** Impact of society, e-banking, perceived risk, ease of use, behavioral intentions, perceived utility.

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### 1. Introduction

Today, most banks face a completely dynamic environment and all banks, whether large or small, have given the highest priority to attracting and retaining business customers in their programs concerning the lightning changes in competitive situations and market conditions (Akinci et al. [1]). Hence, online banking acceptance is increasing in most countries of the world so that the rate of e-banking communication in leading countries has exceeded 50% (Amadeh and Jafarpour [2]).

Currently, e-banking is a necessity rather than an advantage because firstly, virtual electronic banks that operate through the Internet can provide faster, more complete, more accurate and more desirable services to customers around the world and secondly, the slowness of the traditional system causes the banks to lose the gold opportunities to attract customers and with the obsolescence of paper methods of exchanging business documents in developed countries, the possibility of exchanging such documents with advanced countries is ruled out in practice (Yiu et al. [20]).

The definition of e-banking varies somewhat among researchers since it refers to several types of services through which bank customers can request banking services and information. In the Basel

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Committee on Banking Supervision, the e-banking is defined as the provision of valuable small and minor banking products and services through electronic channels as well as high-value e-payments and other major e-banking services. E-banking is a type of electronic service. In this type of banking, all banking operations are performed electronically and all these operations are protected with appropriate security levels (Shojaei and Malekzadeh [17]). E-banking services can be considered in the form of Internet banking, mobile banking, telephone banking, card internet services, and store POS machines.

In Iran, despite the great importance of e-banking services, a high percentage of customers still prefer to spend a lot of time in long queues to pay for water, electricity, telephone, etc. or transfer from one account to another. E-banking acceptance in our country is a complex issue. For example, despite the availability and ease of use of these services, these questions arise as to why many customers are still reluctant to use them, what the factors influencing users' technology acceptance are and what coherent model can be presented in this respect.

If users are not motivated to use technology, it will not be very profitable for the organization. Therefore, the banks need to perceive the key factors in e-banking acceptance among their customers since many customers are still afraid of the risk of using these services and some of them feel that e-banking services will cause the loss of their liquidity in the bank.

One of the concepts considered in customer behavior research is the concept of customer perceived risk. Many studies have suggested that customers experience different forms or dimensions of risk. The amount of the predictive value of each of these dimensions in total risk and the behavior reducing it depends largely on the product or service class (Gernunden [9]). Although the concept of perceived risk has been examined in numerous studies, it has been considered in many of them as a separate construct, not a set of dimensions. Further, in many articles, the perceived risk theory is considered from temporal, financial, efficiency, social, security, and privacy dimensions. But the main purpose of this study is to investigate the dimensions affecting perceived risk from the perspective of customers in Iran.

Additionally, understanding the factors that lead to technology acceptance and why people accept and use information technology is also one of the effective factors in customer behavior. Proper performance of the bank's electronic services plays a key role in the future and present of these services and customers', colleagues' and shareholders' view toward the bank and any errors, speed drops and system failure in providing these new services have a high negative effect on users' attitudes.

Thus, it is necessary to research this filed in the form of a comprehensive study so that by understanding customer opinions about the use of e-banking, we can see how these ideas and attitudes affect customer behavior regarding the use of e-banking. There are various theories about technology acceptance, which will be discussed in the next section. Most studies have merely addressed these Western models while customer behavior in Iran may be different from common behavior outside of Iran. Therefore, another goal of this research is to identify the factors affecting e-banking technology acceptance among customers in the country.

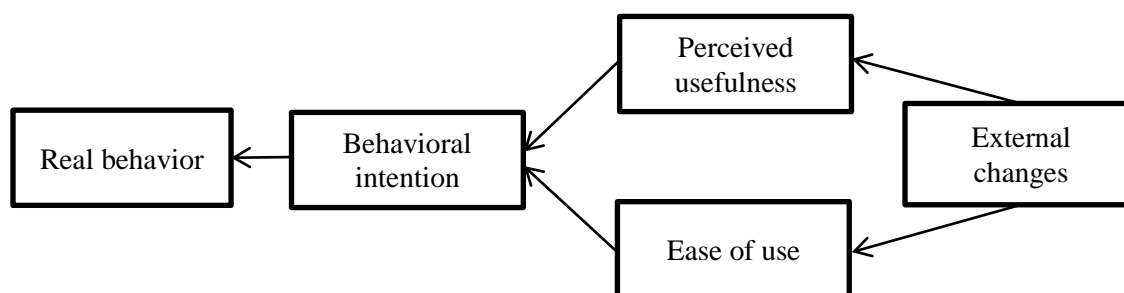
## 2. Literature Review

Given that users' attitudes toward the acceptance of new information systems have a fundamental impact on the success of the acceptance of information systems, a lot of research has been done so far on information systems. Theoretical approaches and models that have been employed as basic theories and models in this field can be summarized in the following cases:

- Theory of Reasoned Action (TRA) (Fishbein and Ajzen [7])
- Innovation Diffusion Theory (IDT) (Rogers [16])
- Theory of Planned Behavior (TPB) (Ajzen, [3])

- Social Cognitive Theory (SCT) (Bandura [4])
- Technology Acceptance Model (TAM) (Davis [5])
- Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. [19])
- Perceived Risk Theory (PRT) (Featherman and Pavlou [6])

The concepts used in this research as basic theories are the unified theory of acceptance and use of technology and perceived risk theory. Among all the theories presented, the technology acceptance model has been the most comprehensive and effective theory applied to describe the individuals' acceptance of information systems. The technology acceptance model was introduced in 1989 by Davis [5] to study the behavior of computer use. This model can describe the customers' individual beliefs and the main value of the suggestion to use it is partly to understand the attitude towards the use of e-banking and whether or not they are inclined to use the system.

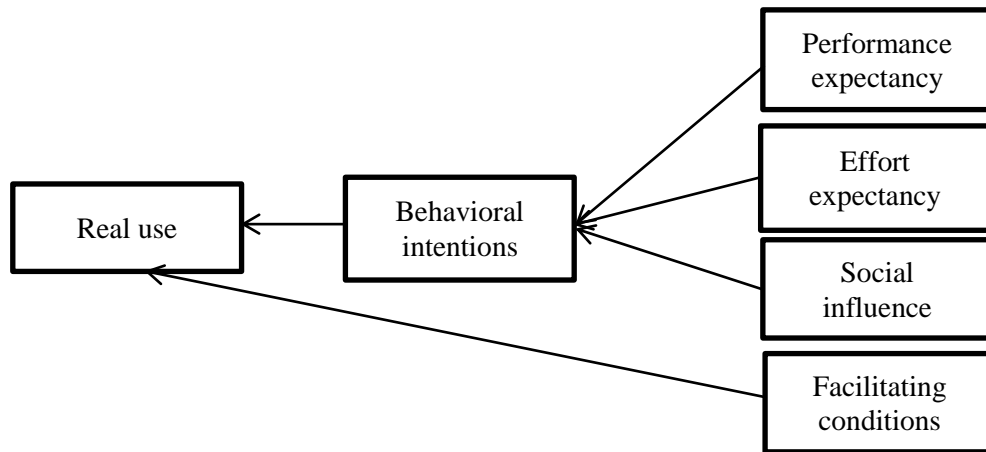


**Figure 1.** Technology acceptance model (Davis [5])

Venkatesh et al. [19], in continuation of the technology acceptance model, presented a more comprehensive model called the unified theory of acceptance and use of technology. This theory summarizes the determinants of behavioral intentions and then the behavior as follows (Venkatesh et al. [19]):

- Performance expectancy: It is the extent to which a person believes that the use of a system will improve his work process. For example, this concept is the extent to which a person believes that using e-banking services will help him achieve the goals of banking tasks. This concept reflects the user's perception of performance improvement using e-banking services such as ease of payment, prompt response, and service effectiveness.
- Effort expectancy: According to the unified theory of acceptance and use of technology, effort expectancy positively affects the expected performance. When users feel that e-banking is easy to use and does not require much effort, they expect a lot to achieve the expected performance. Otherwise, their expected performance will be low.
- Social influence: It is the extent or degree to which the individual understands that those who are important to him believe that he should use the new system.
- Facilitating conditions: This construct reflects the extent or degree to which the individual believes that in case of using a system, the appropriate technical and organizational infrastructure is available to support him.

Perceived risk has an old history in the literature on consumer behavior, according to which it is acknowledged that perceived risk is a strong variable to explain consumer behavior because consumers often try to avoid mistakes (Ghaffari et al. [8]).



**Figure 2.** The unified theory of acceptance and use of technology (Venkatesh et al. [19])

The acceptance of e-banking services by consumers and the desire to use any of the services are directly related to their perception of the desired service feature.

Numerous studies have displayed that perceived risk is an effective factor in people's behavior towards the use of new banking services. Perceived risk can be defined as the perception of the possibility of the occurrence of consequences contrary to the desired consequences in the psychological, social, temporal, personal, financial, and functional areas (Mahmoudi et al. [13]).

Zhao et al. [15] conducted a study in China and investigated the dimensions of customer perceived risk in using Internet banking which is one of the components of e-banking and identified the following four dimensions (Khedmatgozar et al. [12]):

- **Performance risk:** This risk refers to factors that may affect the performance of Internet banking in the eyes of the customer in the following cases: 1) Lack of good system performance due to low download speed, server interruptions or website maintenance operations; 2) failure to meet customer expectations of Internet banking based on advantages advertised after use.
- **Social risk:** This risk refers to customer concerns in the following two areas: 1) Negative views of family, friends, and colleagues about Internet banking and loss of social status in these groups in the event of a mistake or fraud; 2) the inability to communicate directly with bank employees and help from them in case of using Internet banking.
- **Security risk:** Customer security risk includes concerns about the following: 1) World Wide Web insecurity for receiving and sending financial information (Internet security); 2) potential losses from fraud or hacking of the customers.
- **Privacy risk:** This risk implies that Internet banking users want to control all aspects of their personal data collection. Now, if users' private data are collected and recorded without their knowledge, this will cause concern for them.

In another classification, Featherman and Pavlou [6] have identified seven types of risk that are influenced by customer perceived risk (Martins et al. [15]):

- **Functional risk:** According to them, functional risk occurs when the results are not produced as they were designed and therefore do not achieve the intended goals.
- **Financial risk:** It is the potential for losing money on your first purchase of a product or e-service.
- **Time risk:** In the model provided by Featherman and Pavlou [6], it occurs when the customers waste their time by making poor decisions about their purchases and how to use them.

- Psychological risk: In this risk, product performance harms consumer peace of mind and reduces the individual's self-confidence, resulting in not achieving the goal of his purchase.
- Social risk reflects a sense of weakness and frustration or failure in a social group due to the acceptance of a product or service.
- Privacy risk is the possibility of losing control over personal information, such as when a person's information is used without his knowledge.
- The last risk in Featherman and Pavlou's model [6] is a total risk, which is a general measure of all the above-mentioned criteria.

### **3. Research Methodology**

The present study is qualitative in terms of the research approach and in-depth interviews have been used to extract indicators and dimensions of customer behavioral intentions in using e-banking services.

#### **3.1. Research tool**

Since the present research has applied a qualitative method, the type of method selected in this research is thematic analysis. This analysis is a specific type of content analysis in which the researcher already has a pattern in mind. The research statistical population comprises all users of e-banking services in Tehran, such as Internet banking, telephone banking, mobile banking, or POS machine.

#### **3.2. Statistical population and sample**

The statistical population in this research includes all users of the e-banking services of Tejarat Bank in Tehran. To sample in the qualitative stage, the purposive sampling method was applied and managers of the branches with the largest number of e-banking customers were asked to provide the researcher with the opportunity to interview some of the customers at the branch location. With the cooperation of managers of the branches with the largest number of customers in the field of electronic banking, the researcher was able to prepare the research samples. In this study, 30 customers of e-banking services were interviewed using the purposive sampling method. In fact, from interview #22 onwards, the researcher achieved theoretical adequacy, and all of the researcher's questions were answered. However, for greater certainty, the findings continued to be collected until interview #30. The main questions in the current research are as follows:

- How can a practical model be presented to identify the factors affecting e-banking acceptance among customers?
- What appropriate strategies can be proposed to improve the status of e-banking services and reduce the risk among customers to use these services?

#### **3.3. Data collection**

To gather information concerning the main questions and purpose of the research, an in-depth and semi-structured interview was used since this type of interview, due to its depth and flexibility, is specific to qualitative research.

The protocol was applied to collect data with the help of in-depth interviews. The interview protocol contains questions about the researcher's desired topic. These questions, like a funnel,

were asked in a sequence from general to specific. Further, in this type of interview, explorations were used wisely and strategically to receive more explanations without interrupting the flow of responses. Additionally, the researcher referred to previous topics for more depth and discussing the missed topics. He explored the sub-issues raised by the interviewee; but at the same time, the interview went on as usual. It is important to note that due to the nature of the in-depth interviews and semi-structured questions, the interviewees enjoyed great freedom of action in answering questions and examining various aspects of general questions.

The researcher, while communicating with the interviewee and gaining his trust and observing ethical considerations, has recorded a large amount of data using an audio recording. Besides, notes have been taken from the conversations when needed. On average, the duration of each interview was 45-60 minutes. The interviews were studied and re-read several times after implementation so that they would not have any problems or defects.

### **3.4. The qualitative tool reliability**

To examine the acceptability of the participants' perspectives, the text of the interviews was randomly given to some participants in the study to review it and confirm if the interpretation of the results is similar to their opinion. In cases where this similarity did not exist, the individual was asked some questions again to clear up any ambiguity and the interview implementation and coding were performed and the final results were provided again to the person in question.

In the present study, two methods of stability index and intra-thematic agreement index of two coders were used to measure the reliability.

To calculate the test-retest reliability (stability index), several interviews are selected from the interviews conducted and are coded as the sample. The specified codes are then compared in two times intervals for each of the interviews.

The test-retest method is applied to evaluate the stability of the researcher's coding. In this study, three interviews have been selected and re-coded immediately two weeks after the initial coding. The test-retest reliability percentage is 75% and because it is higher than 60%, the coding reliability is verifiable and it can be argued that the reliability of the interview analysis is appropriate.

To calculate the interview reliability through the intra-thematic agreement of two coders (repeatability index), a master of bank marketing was asked to participate in the study as a research partner (coder). After preparing the instruction and coding guide, the necessary training for coding was given to him. Afterward, the researcher and his colleague coded three interviews and the percentage of intra-thematic agreement used as the reliability index of the analysis was calculated. The reliability percentage through the intra-thematic agreement method was 85% and since it is higher than 80%, the reliability of coding is verifiable and it can be claimed that the reliability of the interview analysis through this method is also appropriate.

### **3.5. Data analysis procedure**

The theme analysis process in this study was done in 6 steps:

- First, the text of the interviews was read several times by the researcher to create the necessary familiarity with the depth and content of the data. In this section, the researcher sought to find patterns and relationships between data.
- In the second step, after familiarizing with the data, the researcher began initial coding. Coding is to classify data systematically in all data sets and sort and relate data on each code. Indeed, the second stage began when the researcher read the data and became familiar with them. This step involves generating initial codes from data. At this stage, the researcher is looking for a code that can best explain the data feature.

- The third step is the theme search. At this stage, different codes were classified in the form of potential themes, and all the summarized coded data were sorted in the form of specified themes. The researcher began analyzing his codes and considered how different codes could be combined to create a general theme.
- The fourth step is about theme review. At this stage, the researcher examines whether or not the themes are related to the extracted codes and whether all the data sets create a thematic map of analysis. The fourth step began when the researcher created and reviewed a set of themes. This step comprises two parts: theme review and theme refinement. The first step involves reviewing the coded summaries and in the second step, the validity of the themes was considered about the data sets.
- The fifth step in which the researcher was involved in the stage of defining and naming themes. At this stage and now that there is a general map of the themes, the researcher defined the themes he had presented for analysis and reviewed them again. The data inside them were then analyzed and by definition and review, the nature of what a theme is discussing was determined and it was specified which aspect of the data each theme contains.
- In the last step, the final analysis of the codes and themes extracted from the data was performed by the researcher who tried to analyze the code using the research question and background.

In the last step, the Delphi method was employed to confirm the obtained indicators.

## 4. Findings

The coding steps used in this study are:

- Open coding: Strauss and Corbin [18] describe open coding as “part of the analysis that specifically relates to the naming and classification of phenomena through careful data analysis”.
- Axial coding: The purpose of this coding is to establish a relationship between the categories generated in the open coding stage.

- **First stage: Open coding**

The data related to the text of the interviews conducted with the customers of e-banking services have been summarized in Table (1). At this stage, while carefully studying the text of the interviews and becoming more familiar with the concepts, the text data have been extracted in the form of sentences, words, or quasi-sentences and have been provided in Table (1). Finally, 48 expressions were extracted from the text of the interviews.

- **Second stage: Axial coding**

At this stage, the concepts have been essentially created from data. This step involves splitting the sentences or paragraphs into categories and assigning a term to them. In fact, coding means simplifying or reducing data and classifying them into more general and simpler categories. At this stage, the data have been encoded using the axial coding method, which is shown in Table (2).

**Table 1.** Preparing and summarizing qualitative data

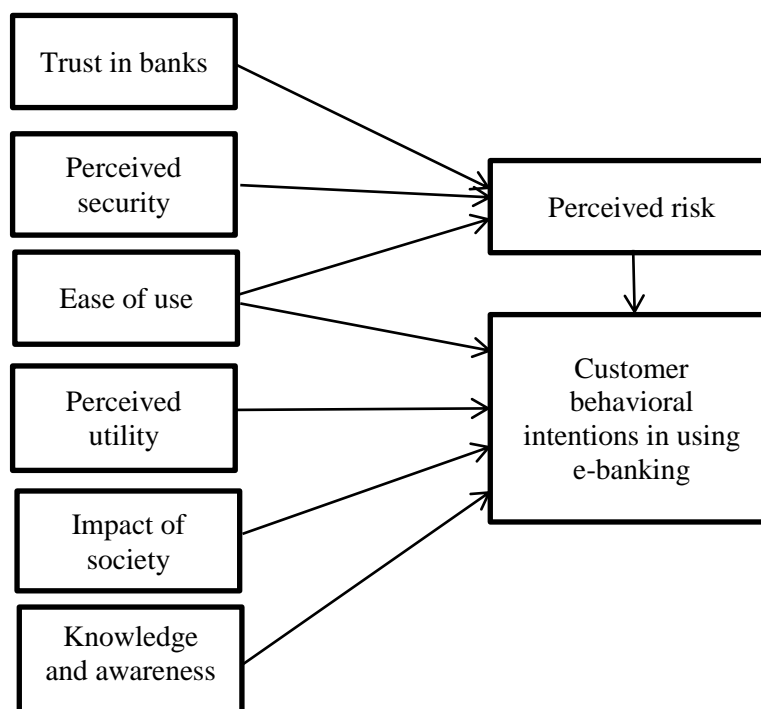
<b>Data (expressions extracted from the interview)</b>		
Time saving	Account security	Easy access
Availability	Account hacking	Work efficiency
Waste of time	Trust	Fewer in-person visits
Convenience	Internet speed	Less use of banknotes
Productivity	Bank support	Positive opinion of important people
High speed	Introduction of friends	Successful experience of relatives
Complexity of services	Leaking of information	Experience of using electronic services
Ease of use	Traffic cost	Computer knowledge
Easy to use	Ease of money transfer	Updating one's knowledge
Lower costs	Opinions of people around	Awareness of banking operations
knowledge and awareness	Personal experience	Disclosure of account password
Security platform	Account misuse	Security codes
Disclosure of password	A sense of security and comfort	Worry about money not reaching its destination
Change of passwords	Bank warnings	Upgrading security systems
Trust in the name and brand of the bank	Easy use	Misuse of personal information
Personnel accountability	Available services	Protection of personal information

**Table 2.** Conceptualization and axial coding according to open coding expressions

<b>Main concepts or themes</b>	<b>Open coding expressions</b>	<b>Main concepts or themes</b>	<b>Open coding expressions</b>
Perceived utility	Ease of money transfer	Perceived security	Account hacking
	Time saving		Disclosure of account password
	Easy access to bank		Security codes
	Work efficiency		Money not reaching the destination
	Productivity		Change of passwords
	Money transfer as soon as possible		Bank warnings
	Fewer in-person visits		Internet speed
	Banking affairs speed		Upgrading security systems
	Less use of banknotes		Misuse of personal information
	Less costs		Protection of account information in the bank
Impact of society	Positive opinion of important people in life	Trust	Bank support
	Successful experience of relatives		Trust in the name and brand of the bank
	Opinion of people around		Personnel accountability
	Friends' views		Less complexity
knowledge and awareness	Experience in using e-services	Ease of use	Easy use
	Computer knowledge		Available services
	Updating one's knowledge		Frequent access to services
	Awareness of banking operations		



After analyzing the qualitative data and classifying and encoding the data and analyzing the content of the concepts and categories extracted from the text of the interviews, the research conceptual model for the indicators of the behavior of using e-banking services was presented (Figure 3).



**Figure 3.** Research model

#### 4.1. Customer behavior indicators assessment using the Delphi method

Delphi panel consists of individuals who have enough knowledge and expertise in the research position. The selection of these qualified people is one of the most important steps in the Delphi method. Accordingly, the Delphi panel members have been selected for this research through non-probability sampling and a combination of purposive or judgmental and chain methods. Thus, 25 professors, experts, and specialists in the field of e-banking were invited to participate in the first part of the research. The reason for choosing this number, on the one hand, is that the usual number in the Delphi method is 30 people and choosing more than that will bring down new ideas. On the other hand, according to Hill [10], what is important is the dominance of the participants over the issues under study, not the number of participants.

After defining the model indicators, the panel members were identified and selected in several steps using non-probability sampling methods. Then, two stages of questionnaire distribution were performed in person using the Delphi method. In the first round, a list of indicators extracted from previous research and in-depth interviews with customers was provided to members and the experts were asked to comment on all indicators based on the Likert scaling. In the second stage, the questionnaire with the remaining indicators was again provided to the experts. At this stage, the experts were also asked to evaluate all indicators based on the Likert scaling. Considering the

experts' consensus and the theoretical saturation in the second stage, the remaining indicators in this stage were approved.

The binomial test was used to evaluate the Delphi results. Indicators were examined according to a 5-point Likert scale. In this scale, the scores of 1 to 5 were assigned, respectively, to the options of "strongly disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree". The positive direction was for those who chose the options of strongly agree and agree and the negative direction was for the people who chose the options of strongly disagree, disagree, and neither agree nor disagree. Accordingly, all experts were divided into two groups of proponents and opponents (Khalili and Niazi [11]). Therefore, the binomial test, which follows a binomial distribution, was applied to investigate the significant difference between the number of proponents and opponents. The results of Delphi's first-round through the binomial test on binomial distribution of experts' opinions are displayed in Table (3).

**Table 3.** The results of the first round of the binomial test on binomial distribution of experts' opinions

Criteria	No. of proponents	No. of opponents	P	Approval/ disapproval of the criterion
Trust in banks	25		0.01	Approved
Perceived security	23	2	0.01	Approved
Ease of use	25		0.01	Approved
Perceived utility	24	1	0.01	Approved
Impact of society	25		0.01	Approved
Knowledge and awareness	11	14	0.01	Disapproved
Perceived risk	25		0.01	Approved

According to Table (3), if the number of proponents is greater than the number of opponents, it means that the highest percentage of experts agreed on this index and therefore, the test became significant. But if the number of opponents is higher than the number of proponents in the state of test significance, it means that statistically, the highest percentage of experts opposed the index. Given the above, in the knowledge and awareness Index, most experts have disagreed, and as a result, this index is excluded from the analysis process.

**Table 4.** The results of the second round of the binomial test on binomial distribution of experts' opinions

Criteria	No. of proponents	No. of opponents	P	Approval/ disapproval of the criterion
Trust in banks	25		0.01	Approved
Perceived security	25		0.01	Approved
Ease of use	25		0.01	Approved
Perceived utility	25		0.01	Approved
Impact of society	25		0.01	Approved
Perceived risk	25		0.01	Approved

As shown in Table (4), the remaining indicators in Delphi's second round were confirmed. Accordingly, except for the knowledge and awareness index, the rest of the indicators obtained from the interviews were approved by the experts.

## 5. Discussion and Conclusion

The overall goal of this research was to identify and extract indicators affecting customer behavioral intentions in the use of e-banking services. To achieve the research goal, a qualitative method (interview) and the Delphi technique have been employed. The necessary information and data were collected from the customers of e-banking services of Bank Tejarat in Tehran and were then analyzed using the open and axial coding methods. After that, the experts were asked to comment on the indicators obtained from the interviews and theoretical foundations using the Delphi technique.

In the coding stage, while carefully studying the text of the interviews and becoming more familiar with the concepts and data, the text data were extracted in the form of sentences, words, or quasi-sentences. In the axial coding, concepts were created from data. This step included splitting sentences or paragraphs into categories and assigning a term to them. After identifying the effective indicators, the Delphi panel was used to confirm them. After selecting the panel members using the purposive and non-probability sampling method, two stages of questionnaire distribution were performed in person and the experts were asked to comment on the indicators using the Likert scaling. Given the experts' consensus and the theoretical saturation in the second phase of Delphi, it became clear that the indicators of trust in banks, perceived security, perceived utility, ease of use, the impact of society and perceived risk affect customer behavioral intentions in the use of e-banking services.

Based on the results and findings of the research, it can be stated that perceived risk has a direct and inverse effect on customer behavioral intentions. One of the factors influencing the perceived risk of customers is trust in banks. One of the results of building trust is to reduce the perceived risk of interactions in a relationship, and trust can be used to mitigate risk.

Numerous studies demonstrate that perceived risk and trust are two effective factors in people's behavior when using new banking services. Zhao et al. [21] believes that perceived risk as a psychological concept is one of the main reasons why customers do not use Internet banking services while social psychologists present trust as the main risk-reducing factor that overcomes this problem (Zhao et al. [21]). Therefore, trust-building programs and processes play a crucial role in the success of e-banking. If customers trust their bank and believe in the bank's advertising slogans and programs, their lack of confidence in e-banking will decrease, and eventually, their perceived risk will be reduced. In connection with trust-building among customers, it is recommended that banks determine the limits of payment of damages to customers in the event of any online violations or hacking of the customer's account so that customers become aware that they are backed by the banks and gain more confidence in the bank's electronic services. The bank can also inform the customers about the types of scams in the field of electronic banking and provide them with the necessary instructions to protect against such scams to make them feel that the bank has the necessary and sufficient ability to provide electronic services. Moreover, the bank can periodically provide customers with a list of failed transactions to total transactions to prepare the ground for trust-building in customers.

Perceived security reflects customers' concerns about Internet security and website security. Lack of confidence in virtual and electronic systems basically exists and is considered as part of the nature of electronic technology and virtual environments and is beyond the control of banks and customers. Hence, the bank should look for ways to reduce this risk. In general, in e-banking, various methods are used to fill the security gap, such as encryption, electronic signatures, and the use of powerful security systems and firewalls. These cases as well as trust in third-party certifiers (Manzano et al. [14]) can raise the awareness of bank customers about security considerations and cause to enhance customer interest by reducing this risk in their minds.

Another factor that influences the perceived risk of customers in this research model is their perceived ease and certainly, the more comfortable a customer feels about using e-services, the more likely he is to use them. Banks are recommended to try to simplify and shorten the steps and processes of e-banking services as much as possible. Currently, one of the measures taken by Tejarat Bank to simplify e-banking services is to provide a new version of Tejarat Bank's mobile banking. Announcing the upgrade of the e-banking services platform, the bank's managing director has referred to a new version of mobile banking and added that the new version of Shetab (Interbank Information Transfer Network) system has been designed according to the needs of standardization and alignment of banks' operational environment with international banking and has been provided by the Central Bank to present appropriate services and the possibility of increasing a variety of products tailored to the needs of the business environment and in line with new security standards. Other measures like this can be taken for other e-banking services to simplify and create peace of mind for customers, such as holding training courses or compiling appropriate and practical training booklets for customers.

In the research model, we see that the utility which the customer perceives also affects his behavioral intentions in using e-banking services. In the interviews conducted, most of the customers mentioned saving time or creating productivity in doing their job and we used perceived utility for them when choosing a theme. Thus, the bank should reduce the time needed to conduct banking operations electronically and decrease system errors as much as possible.

Furthermore, in the codes obtained from in-depth interviews with customers, it was revealed that encouragement of the relatives and friends and influential people in life affects their use of e-banking services, and this can be a way for the bank to do positive advertising for itself. Managers and officials of the branches with loyal customers who use e-services can apply motivational advertising methods for them and, by considering rewards, ask the customers to introduce new e-banking services such as internet banking or mobile banking to relatives and acquaintances, causing them to use these services. If bank managers implement this plan for branch personnel and ask the staff and colleagues to introduce new customers to the bank's e-services and provide them with motivation rewards, it can be called capillary marketing.

Among the limitations of this research, the following can be mentioned: First, given that different cultures may affect the customers' attitude and since different cities in Iran have different cultures, caution should be exercised in generalizing the results of this study to other cultures and cities in the country. Considering that personality and cultural characteristics vary from one city to another, it may limit the generalizability of the research results. Second, the use of cross-sectional research can be one of the research limitations because this type of research cannot consider technological advances or changes. Given that customer behavior is dynamic, longitudinal research may provide more insight into customer use behavior. Third, the interviewees in this study were mostly young and middle-aged whose behavior may be different from that of the elderly since these people adopt new technologies later than younger people. Therefore, one of the limitations of this research can be non-generalizability to older age groups. Additionally, the following suggestions can be made for future researchers:

- The behavior of customers' use of e-banking services can be studied in longitudinal research to examine behavior changes over time and simultaneously with new changes in information technology.
- Since the present study has been conducted only on one bank and the obtained results may be valid only for the desired bank, it is recommended to perform comparative studies to compare the influence of e-banking services among customers of other banks.
- The behavior of customers' use of e-banking services can be investigated and compared among different groups of customers in different age groups.
- In the current research, the effect of using electronic services on people's behavioral intentions was examined and since the bank's profitability is also one of the important

success factors, it is recommended that in the future, researchers analyze and test the impact of using electronic services on the bank's profitability.

- In future research, researchers can compare and analyze customer behavior in the use of each e-banking service, such as comparing mobile banking and Internet banking.

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