

Review and prioritization of the organization's external environment factors on competitive performance in the banking industry with foresight approach: Case Study of Sepah Bank, 1391

Abstract

Highly dynamism of business environment in the banking industry has caused the problem of how to maintain and develop superior competitive position in this industry to be a major challenge for managers, particularly for state-owned banks, and foresight as the most modern tools to meet this challenge, has assisted managers in today's organizations. In spite of the necessity of this matter, in this regard any special study has not been done so far. This study which is an applied - survey research associated with the complex research methods has the administrators, teachers and activists in the banking industry as its statistical population. This study tries to adapt the factors involved in the competitive advantage based on interviews with 15 experts in Sepah Bank with industry space under review and then, 188 experts of Sepah Bank were identified and through incessant verbal and non- verbal negotiations, 134 of them were willing to cooperate. It should be noted that the survey sample, is the conventional method for the experts that is being introduced from other experts. Using TOPSIS software and SPSS for rankings test, environmental factors of the banking industry affecting the competing bank performance were identified and prioritized.

1 – Introduction

Over the past four decades, technological and environmental changes with increasing speed have become the critical and inseparable part of the banking system. Although considering the changes in the banking system since forty years ago has been in the agenda, with the change created from the Lawst two decades, an increasing growth in studying these changes can be observed. According to authorities in the banking system, the banking industry is the dynamic drive of the economy. Otherwise, factors such as the followings have faced the banks with various challenges, now and in the future.

- ✓ increasing breadth and complexity of activities
- ✓ increased competition
- ✓ rapid changes in the economic environment
- ✓ Extensive changes in technology and systems
- ✓ Changes in government regulations and cultural factors associated with the performance of this industry.

To meet these challenges, we have a long way, it is hoped that with the cooperation of experts in the field, this route is passed faster and more crucial. On the other hand, with the arrival of private banks to the banking network of the country, banking industry has observed great developments in field of competition in recent decades. In this case, study and reinforcing

internal resources and organizational structure is not the only way to survive in the competitions, and organizations should consider strengthening their monitoring force. The main objective of the present study is to evaluate and prioritize the organization's external environment factors on the competitive performance in the banking industry that could identify the most important and least important factors.

2 - Literature Review

2.1 - Competitive Advantage

The concept of competitive advantage is one of the most ancient concepts of economics and its evolution can be traced from the concept of absolute advantage by Adam Smith and theory of comparative advantage provided by Ricardo to the present time. Given this long history which has been passed, various definitions are presented by authorities to clarify the concept of competitive advantage. Competitive advantage is a set of distinctive features that allow the organization that in the presenting product and service or in the manufacturing process outperform their rivals so that competitors are not able to simulate these features (Sadri and Lees, 2001).

Competitive advantages include activities in industry that according to which a worth more than the expected value of the resources used by the organization is created (Barney , 2002). Competitive advantage means more efficiency than normal and the creation of value is applied to whatever cause revenues and income to be greater than the cost (Barney and Clarke 2007). The above definitions can be summed up in two categories defined as follows:

1. Competitive advantage in the demand quantity, which gives different firms access to customers, these advantages can result from customer habits and search costs or decision fees.
2. Competitive advantage in cost, which can be caused by two reasons:
 - a. Access to a technology that competitors cannot imitate it
 - b. Economies of scale which is associated with the final cost reduction and other competitors are not able to exploit. In fact, other reasons, such as governmental support, more access to information and.... lead to competitive advantage; but the factors in strain of demand, technology exclusivity and economies of scale are the main factors (Rasekhi and Zabihi Lahromy , 2008, 4).

2.2 – Organization’s Environment

The organization's environment include a set of factors that affect the organization's mission, goals, and correspondingly the organization's strategy, and are more or less affected by organization’s functions, but the organization does not have much control over them . The main factors of recognizing the environment, which should be assessed separately for each of the components, are as follows:

A - Complexity: This factor is concerned with conflict and heterogeneity of different components of the environment. This means that each of the components must be examined viewed in terms of the relationship with the organization and the relationship with other components of the environment to determine the extent and degree of complexity.

B - Dynamism: it comes from when the parts of the environment are constantly changing and cannot be taken as fixed and unchanged in the analyses. Moreover, the vast majority of these changes is unpredictable and thus pinpoints what's coming to them and therefore the environment is not easy. Thus, each of the components in these areas should also be reviewed and categorized to determine the dynamics of the environment.

C - Toughness: each of the components alone or in partnership with other components, have access to the parts of necessary resources of the organization. Therefore, access to these resources depends on the mode of action of these components, these resources can be of importance for organization and easy access to different organizations; hence, the impact of these resources on the organization and degree of desirability of attaining them for the organization totally show toughness of environment. If any part of the environment is categorized in this regard, of course, the tenacity and toughness of environment is characterized.

Here's an important point that should be noted, that how much the environment of an organization is tougher and more dynamic, naturally requirements that are imposed to the organization are more, and then restrictions and coercions of to the organization are more. Such an environment is called environment with strong force and requirements, and by determining the environmental conditions for each organization, its high level of requirements can be realized (Shahmansuri , Norouzi , 2012).

Banks in order to optimize the performance of their activities and have participation in the development of the country now and in the future, requires timely and accurate information from reliable sources about the environmental have impact on their processes. This information is part of the banking industry to protect the bank from increasing tension caused by environment changes. It should be noted that there is a wide range of information in the banks. However, in countries such as Iran, banking industry faces many uncertainties and bank managers often have experienced lack of information about the external environment. (POPOOLA, 2000).

2.3 – Foresight

Almost in all fields of management, managing the future plays an important role. However, this concept has different meanings in management. This concept is widely used in deciding making. Upon the type and amount of information that is available to decision makers, taking decisions has three categories, including (1) decision making under certainty, (2) decision making under risk, and (3) decision making under uncertain conditions. The first describes the situation in which the decision maker knows that it can predict exactly what will happen in the future. In the second case, the decision maker cannot see future improvements, but is aware of the possible

developments and considers how this development may be possible. In this case, the future is an open concept, but is defined only in a certain range. In the third case, the decision maker knows only future development is possible, but its probability is beyond the scope of the second case. In this case, the decision-makers' goal is making relationships between the organization's current status and future developments (Seidl, Aaken, 2004). The third case is about the future Term foresight entered in the late 1980s, into management sciences, and social sciences and were used by the organization (Anderson, 1997, 2). Experts tend to the foresight for three separate reasons and the intersection of these three different aspects form the foresight. These three areas are: a) strategic planning, b) futurist and c) Networking (Miles, 2002,6) visible in Figure 1.

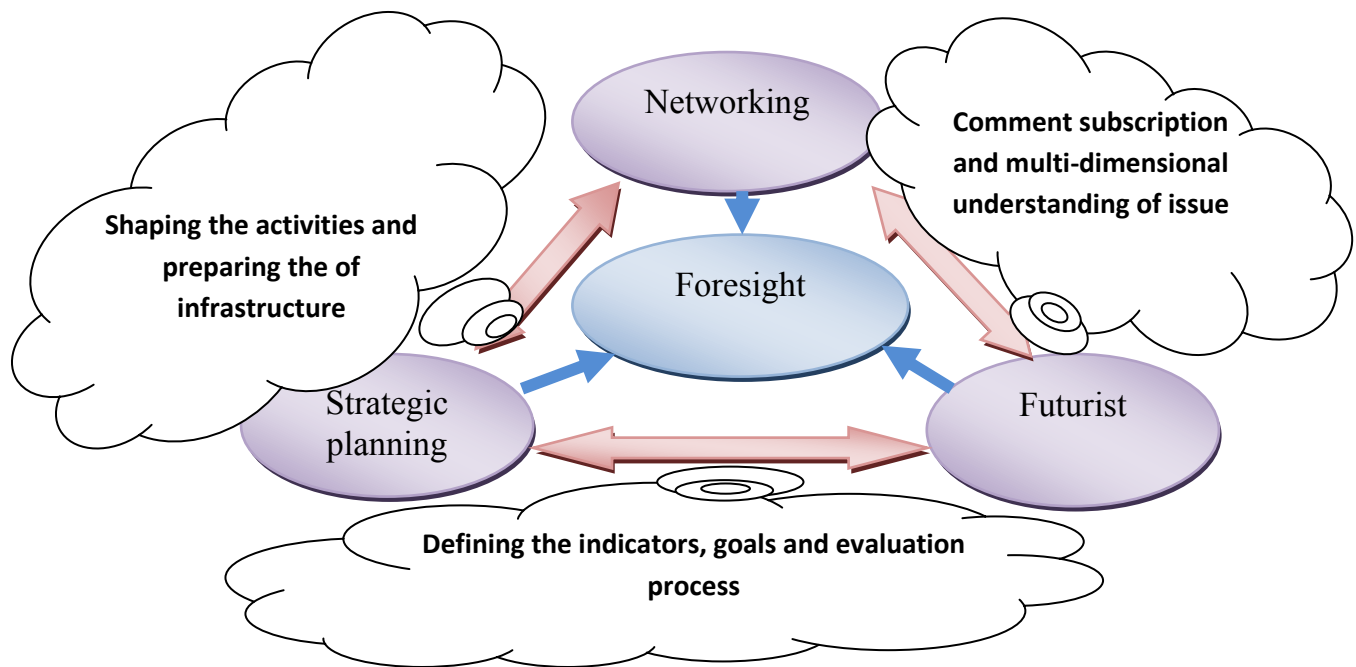


Figure 1: The origin of foresight (Miles, 2002)

This process of certain focus on senior manager's cognitive mechanisms facilitates decision making respectively through networking, collective understanding of the factors involved in the issues, the impact of each of these factors on each other, the major issue in another time, and modeling. Based on the presented final model, the strategic planning is carried out, and the steps necessary to implement the program in time horizon is determined (Boottz, 2010,3).

1-2-3 – Networking

As the foresight definition shows, output of this process is to better anticipate and shape the long-term future. Among the wide range of opinions and perspectives of experts (consensus) on each dimension of the problem at hand is needed (Apšvalka et al., 2008). Networking is among the measures necessary as prelude to the process of futures studies. The team started its activities

at this time is responsible for establishing and managing the network better in terms of constructive communication among members for the effectiveness of its work. Members of this network can be divided into two groups, each of which have a significant impact on the decision making process, the industry experts whose members are selected among academicians, artisans, government officials and senior scientific advisors. The second group includes stakeholders, policymakers and external stakeholders who are indirectly influenced by the decisions made by the first group (Anderson, 1997, 3).

There are no clear rules on how to select the number of participants in the network does not have the foresight. Depending on the number of factors: the size of the project or plan, decision quality, time and resources are available for data collection. With the advent of information technology in recent decades, the development of a network for consensus among members was created and by employing this technology, the speed of decision making is increased and the effectiveness of communication is also increased, and the exchange of information among members is facilitated. Some new forms of networking and facilitating communication between members are the followings:

1. Email tool is widely used to update their information and invite experts to attend meetings and conferences.
- 2 . Activation of electronic portals to publish news about recent developments in technology, changes in customer demand and requirements, along with analyzes of the News.
- 3 . Causing official websites of foresight that provides access to a number of reports and notices of futures studies programs.
4. Experimental Marketing Website to facilitate communication between customers and other stakeholders of the company, to assess their needs and to design products according to customers' demands about their views
- 5 . Brainstorming international community set up the company which enables a large number of experts, customers and stakeholders to participate in the presentation of an electronic survey (Smith, Mason, 2004, 15).

2-2-3 – Futurist

Futurist can be defined as activities with short term, but a continuous period, for the main process of futures studies, which juxtaposition of these sub- activities, determine the general trend of foresight. Among the features that foresight will have through this is scientific credibility, being structured, Macro perspective, the wide and long term, and continuous view on activity, a framework of cause and effect, tool for knowledge transfer, less attention to processes of output, focusing on human resources and incentives, and efforts to promote the formation of consensus among members (Technology Foresight for Organizers, 2003).

3.2.3 – Planning

One of the messages that the foresight have for managers and many scholars have approved and stressed it is considering the fact that there is no need for detailed knowledge of the future , it is sufficient just to be prepared for the future . This message explicitly represents the need to deployment of strategic management for planning in this process. Strategic management approach is based on the identification of the main factors affecting the company's objectives and performance over a long period, and analyzing the potential impact of these factors on the organization's mission, and finally tracing the development of landscapes created by the transformation of these factors. Strategic thinking seeks to explore the underlying assumptions and pursue the process of changes from the present to the future, passes its evolution and in order to achieve the development associated with these changes, accommodate planning which is required (Jackson, 2011).

3 – Research Background

Petti & Zhang (2011) in their study on the review of theoretical models of entrepreneurship in technology review a model that represents the concept those internal factors, external factors and mission of the organization has a direct impact on competitive performance. Ratnaningsih et al. (2010) in their study argue that both internal and external factors affect the organization's competitive performance. When the hypothesis tested in this study, it was determined that five organizational elements and six environmental factors, including technology, economics, politics, culture, society and the state. Jabbuor et al (2010) in their study argue that three strategies in the face of environmental organizations are facing the organization and organization on the basis of their strategy chooses one of them. The first view is being a function of the environment (reactive approach), the second view is integration of internal factors with respect to changes in external factors, (proactive approach), and third view is integration of internal and external factors (active approach). This study is based on theory and has not found practical aspects yet. Molina and Azorín (2009) in their study argue that the environmental factors have a direct impact on the organization's competitive performance. According to their survey, more than anything else, environmental factors affect market performance and financial performance. Sharma et al (2007) in their study, examine the impact of environmental factors on competitive performance in the services sector. The results indicate that among the factors related to the organization's competitive performance, innovation factor is most highly valued. POPOOLA (2000) in a study conducted in the banking industry in the Nigeria country, examined the influence of six factors of dynamism of the environment, technology, economics, politics, cultural and social factors, and market and customers dynamics and ultimately competitors, on competitive performance measured through survey and concluded that competitive factors and market and customers dynamism have the highest value among the factors. According to Heydari's studies, (2009) environmental factors affecting the competitive advantage include of the market dynamism, technology dynamism and competition severity, and according to the space of the industry under study, other environmental factors can be added to them.

Finally, factors related to competitive performance include the marketing performance, finance, innovation and entrepreneurship. Heidari has a special focus on entrepreneurial aspects .

4 - Research Methodology

In terms of goal, this research is an applied research, since it seeks to achieve a desired scientific objective and its emphasis is on the present and future situation's desirability (Delavar , 2010, 49) . In terms of method of data collection, the study is considered as descriptive - survey research, since it deals with the issue in which the researcher has not possibility to intervene with the subjects (Sarmad et al., 2006). The research methodology is based on a "blended futures study ".The ultimate results of research are a combination of approaches rather than a specific method. This approach combines three methods of survey research, library data, and semi-structured interviews with 15 experts of Sepah Bank and the members of 134 expert panels through two rounds of semi-structured questionnaires of the original group of industry experts. The questionnaire consisted of 18 closed questions and one open question, with Cronbach's alpha of 0.8226 / 0, that examines a complex and uncertain situations in the future which would not be possible with a single method. It should be noted that the reliability of the questionnaire was confirmed by a number of professors from the Department of Management.

4.1 - Rating of Environmental Factors – Competitive Performance

The most common method for ranking the relations in management science is using TOPSIS method. TOPSIS (technique similar to prioritize the positive ideal solution) is known as one of the classical methods, which was developed in 1981 by Hwang and Yoon to solve problems on the basis of the ideal. The selected option must have the shortest distance from the positive ideal and the maximum distance from the negative ideal in other side (Hwang & Yoon, 1981). The history of using TOPSIS model in the Iran is beginning of 1370 decade and the use of fuzzy status is limited to a few years.

Step 1 - obtain the weight vector $w \sim j$ (using entropy method)

Step 2 - normalizing the matrix derived from expert opinions.

Step 3 - The Formula 4 is formed by weighted matrix:

$$\tilde{V} = [\tilde{v}_{ij}]_{m \times n} \quad i = 1, 2, \dots, m, \quad j = 1, 2, \dots, n$$

$$\tilde{v}_{ij} = \frac{v_{ij}}{\sum_{j=1}^n v_{ij}}$$

Step 3 – Therefore the weighted matrix is:

$$\tilde{V} = [\tilde{v}_{ij}]_{m \times n} \quad i = 1, 2, \dots, m, \quad j = 1, 2, \dots, n$$

$$\tilde{v}_{ij}^+ \quad \tilde{v}_{ij}^-$$

Step 4 – Determining the Fuzzy positive ideal solution \tilde{v}_j^* and Fuzzy negative ideal solution \tilde{v}_j^- :

$$\tilde{v}_j^- = \begin{cases} \min_{i=1, \dots, m} \tilde{v}_{ij}^+; j \in B \\ \max_{i=1, \dots, m} \tilde{v}_{ij}^-; j \in C \end{cases} \quad \tilde{v}_j^* = \begin{cases} \max_{i=1, \dots, m} \tilde{v}_{ij}^+; j \in B \\ \min_{i=1, \dots, m} \tilde{v}_{ij}^-; j \in C \end{cases}$$

Step 5 - Calculating the distances of measurements

Step 6 - Calculating the relative closeness to the ideal and ranking

$$CI_i = \frac{d_i^-}{d_i^- + d_i^*},$$

5. Expert's Consensus

5.1. The first round of foresight

5.1.1. Adaptation of factors with the industry's environment

Since the list extracted from the theoretical studies has been related to the results of the overseas studies, for the localization and depth review of these factors and the situation in which we are placed. (Mirzaei Rubber et al, 2011, 4). Some of these factors also do not affect the present study's results.

5.1.2. Justifying the experts about the subject

The first practical step in the expert's consensus on the foresight is establishing the research subject and providing the necessary documentation required to answer the interview questions, so that we can achieve the high level of conceptual agreement on the overall dimensions of the problem and related concepts between the experts and researcher (Smith, Mason, 2004, 6). Therefore, some related documentations are sent to the experts before the interview.

5.1.3. Refining the list of factors

It seems necessary to review the research indicators with a small number of experts familiar with the banking industry. 15 experts, among the 23 of them, were willing to cooperate in the interview that lasted for 12 hours.

Table 1: Factors and sub-factors

Environmental factors						Competitive performance			
Market and customers' dynamism	competitors	Social and cultural	Laws and policies	economic	Technology dynamism	market	financial	innovative	Sub-factor

5.2. The second round of foresight

5.2.1. Selection of members (industry experts)

After refining the list of factors related to competitive performance with the help of experts of the banking industry, the main foresight process begins. The first step is to determine the expert to gain the desired information and their consensus through a semi-structured questionnaire. In this study, the desired indicators for the identification of industry experts include having the management experience, the people who have had research activities and the main people who have worked in this industry and have been introduced by the experts.

5.2.2. Re-justifying the experts about the subject

In this step, providing the necessary documentation needed to answer questions of the experts seems essential. Then we can achieve a high level of conceptual agreement about the overall dimensions of the problem and related concepts between the experts and researcher. Therefore, some related documentations are sent to the experts before or during the presentation of the questionnaire.

6. Analysis

6.1. Establishment of relationships by the experts

In this step, a semi-structured questionnaire is used in order to obtain the exact opinion of the experts for establishing the relationships between the factors. In summary, only the initial and final tables are presented.

Table 2: Matrix of environmental factors - competitive performance

	competitive performance		
	financial	Market	innovative
Technology dynamism	3/514925	4/343284	3/074627
economic	3/492537	4/201493	3/880597
Social and cultural	3	3/873134	4/223881
competitors	4/597015	3/156716	3/679104
Market and customers'	4/552239	4/223881	4/08209
Laws and policies	4/067164	3/746269	4/19403

Table 3: Weights of indicators (entropy method)

	financial	Market	innovative
Weight	0/506027	0/244968	0/249005

Table4: Ranking of environmental factors

	environmental factors	CI _i
1	Market and customers'	0/987744
2	competitors	0/864372
3	economic	0/765887
4	Laws and policies	0/696223
5	Technology dynamism	0/395964
6	Social and cultural	0/333104

Table 5: Results of Friedman's test at a significance level of environmental factors in the organization's competitive performance

Number	۱۳۴
Chi square	۹۷/۱۵۷
Degrees of freedom	۵
Significant	۰/۰۰۰

The average rating of the market and customers' variable is 4/5. This indicates that this variable is more important than other variables and the competitive, laws and policy, economic, technology dynamism, cultural and social variables have the next priorities. In conclusion we can say that the market and customers' factor is involved in the organization's competitive performance more than any other factor. Since the significance level in the Friedman test is .000, with the reliability of 99 and 1 percentage of error it can be concluded that the market and customers' factor is the most important factor in the organization's competitive performance.

The third round of foresight

6.2. Confirming the previous step's results and re-accountability

After analyzing the questionnaires of the previous step, the results and another copy of the questionnaire are returned back to the experts, so that they can provide their additional comments.

Table 6: Matrix of environmental factors - competitive performance

	competitive performance		
	financial	Market	innovative
Technology dynamism	3/335821	4/328358	3/052239
economic	4/067164	3/783582	4/208955
Social and cultural	2/985075	3/850746	4/171642
competitors	4/604478	3/201493	3/69403
Market and customers'	4/567164	4/261194	4/149254
Laws and policies	3/514925	4/19403	3/873134

Table 7: Weights of indicators (entropy method)

	financial	Market	innovative
Weight	0/543956	0/211668	0/244376

Table8: Ranking of environmental factors

	environmental factors	CI _i
1	Market and customers	0/965114
2	competitors	0/743225
3	economic	0/70985
4	Laws and policies	0/496867
5	Technology dynamism	0/303652
6	Social and cultural	0/29156

Table 9: Results of Friedman's test at a significance level of environmental factors in the organization's competitive performance

Number	134
Chi square	117/9.9
Degrees of freedom	5
Significant	.000

The average rating of the market and customers' variable is 4/6. This indicates that this variable is more important than other variables and the competitive, laws and policy, economic, technology dynamism, cultural and social variables have the next priorities. In conclusion we can say that the market and customers' factor is involved in the organization's competitive performance more than any other factor. Since the significance level in the Friedman test is .000, with the reliability of 99 and 1 percentage of error it can be concluded that the market and customers' factor is the most important factor in the organization's competitive performance.

7. Conclusion

According to the step by step procedure of the research, the results are divided into the three parts of the foresight process's first round, second round and third round.

The first round of foresight process:

Environmental factors: Experts' consensus for the effect of technology dynamism factor on the banking industry is 80 %, the economic conditions factor is 87 %, social and cultural factors is 74 %, competitive factor is 100, market and customers' dynamism factor is 100 % and laws and policies factor is 93.40 %. These figures indicate the fact that the factor of market and customers' dynamism has the most value and the factor of social and cultural has the least value amongst the other environmental factors.

Competitive performance: Experts' consensus for financial factor on the banking industry is 73%, the market factor is 93% and innovative 93%. These figures indicate the fact that the factors of market and innovative have the most value and the factor of financial has the least value amongst the other environmental factors.

Competitive performance factors:

The second round of foresight process:

Environmental factors directly affect the competitive performance of organizations. The factor of market and customers' dynamism is the most important factor of the organization's competitive performance. After that there are the factors of competitors, economic conditions, laws and policies, technological dynamism and also the social- cultural factors.

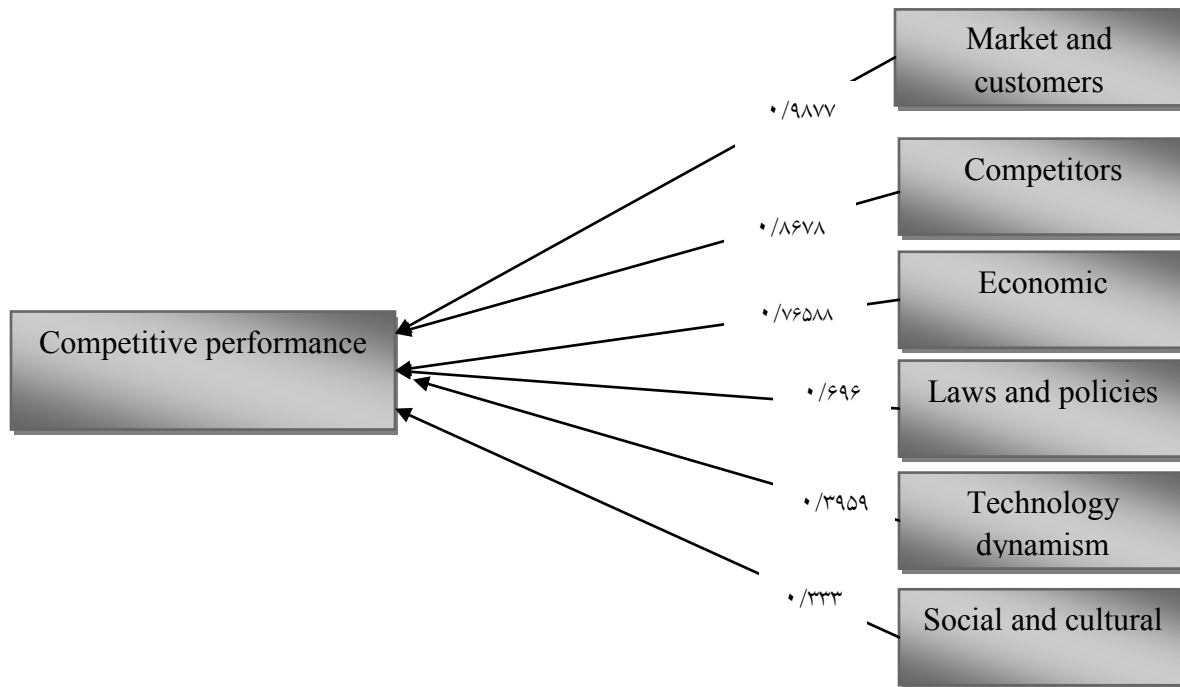


Figure 2: Ranking based on the first round questionnaire

The third round of foresight process:

The results of the third round of foresight process are completely consistent with the results of the previous step and in this step environmental factors directly affect the competitive performance of organizations. The factor of market and customers' dynamism is the most important factor of the organization's competitive performance. After that there are the factors of competitors, economic conditions, laws and policies, technological dynamism and also the social- cultural factors.

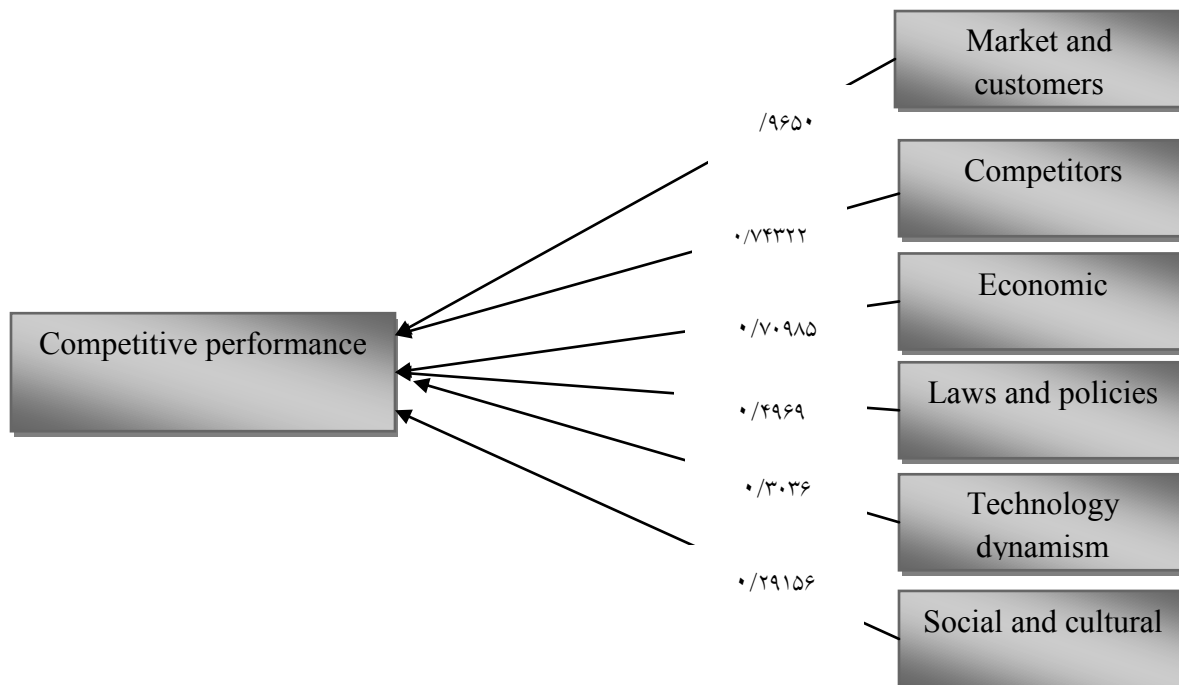


Figure 3: Ranking based on the second round questionnaire

Suggestions Based on Research Findings:

Due to the close relationship of competitors' activities and market's dynamism and due to the direct impact of this factor on the organization's competitive performance, public banks are suggested to hunt more environmental opportunities along with future perspectives in order to achieve an outstanding and competitive position in the organization. Data obtained in this way should be seen as a key element in the organization's long-term plans.

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