

Designing An Organizational Resilience Model Based On Organizational Agility Components In Sepah Bank Branches In North Khorasan Province

Heidar Kadivar Zinkanlou¹, Golamabas Shekari^{2*} and Saeid Emamgholizadeh³

¹PhD Student, Human Resource Management, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran. (h.kadivar57@yahoo.com)

²Assistant Professor, Mashhad Branch, Islamic Azad University, Mashhad, Iran. (Corresponding Author email: dr.shekari@yahoo.com)

³Assistant professor, Shomal University, Amol, Iran. (Gholizadehsaeid@gmail.com)

Abstract

Signaling theory in the banking industry makes it clear that providing different signals and signs from the bank's internal and external environment can help bank managers to plan better. This issue will be more important in the discussion of organizational resilience because bank managers can provide the necessary measures for further resilience by receiving signals and signs about the financial and operational issues of their bank. This will also lead to greater bank agility and faster response to destructive events in the bank. Therefore, signaling theory will play an important role in creating more agility and thus increasing the resilience of the banking industry. In fact, many studies have addressed various issues related to resilience and its role in the organization. However, there are limited studies that have focused on resilience and the elements that affect it with respect to agility features. In fact, no specific research can be found inside that has presented the organization's resilience model based on agility. Also, the use of signaling theory-based approach to the discussion of organizational resilience used in the present study will answer many of the competing ambiguities over the acquisition of internal resources between units and their role in organizational resilience that have not been addressed in previous research. These few points in fact show the research gap in the field of the present study and clarify how the present research can help in this field to reduce the existing gap. Therefore, in this study, the organizational resilience model is designed based on the components of business agility with a view based on signaling theory in the branches of Bank Sepah in North Khorasan

Keywords: Organizational Resilience, Agility, Signaling Theory.

Introduction

Researches have indicated that the ability of organizations in a society to manage crises and challenges has a significant impact on the ability of that society to cope with crises and the quality of recovery from challenges. Organizations, with

the essential services they provide in times of crisis, play a very important role in the speed with which society returns to normal situation. Therefore, organizational resilience, meaning the capacity of the organization to predict the crisis, reduce the effects and resistance to its damage, appropriate response, and finally recovery from

the crisis, has recently become an important topic in organizational researches. Business agility is also an important issue for organizations in responding appropriately to environmental changes and challenges. The most recent issue is receiving appropriate signals from the environment and the organization, which can be properly analyzed to respond to crises and challenges by the organization. In this regard, this article attempts to help organizations achieve resilience by identifying the indices and dimensions of organizational resilience and finally designing a model for it. The present study aimed to design an organizational resilience model based on the components of business agility with the signaling theory approach. In this research, qualitative-quantitative combination method and interview experts are used for design the model. The statistical population of the research is banking industry experts, and managers and deputies of branches of Sepah Bank in North Khorasan. Today's world is influenced by the decisions that people make in very complex situations with high uncertainty. The turmoil resulting from these decisions has led to a great deal of uncertainty in the phenomena. In such a risky situation, every firm and organization should try to maintain balance and survival by receiving the least negative impact of these phenomena and, at best, turning these threats into opportunities. Lack of balance in the conditions of firms and organizations may lead to a fall in stock values, jeopardizing profits and even bankruptcy. Over the last quarter of a

century, the world has experienced unprecedented changes, many of which have been for the better. In different continents, many countries are on the path of international integration, economic reform, technological modernization and democratic participation (Siahkoli, 2018).

The concept of resilience has gained so much credibility that it is considered to be the equivalent of preventing US counterterrorism and national security policies by leaders of US public and private sectors. The first use of the term was made by Stephen Flynn at the Council on Foreign Relations. Flynn in his book "America Vulnerability (How Did the Government Fail to Defend Against Terrorist Attacks?)" It argues

that vital US infrastructure, such as bridges, tunnels, power grids, airports, chemical plants, and water systems, is a potential target for terrorists. Given that more than 90 percent of the critical infrastructure in the United States is owned by the private sector, cooperation between the private and public sectors and their resilience was identified as a key point. Attention to the issue of vulnerability or resilience, not only at the national level, but also at the level of economic enterprises was considered seriously (Amiri et al., 2018: 12).

Resilience is not a strategy for responding to a crisis or rescuing from a failure, but an ongoing activity to anticipate disruptions that disrupt business. This strategy becomes more apparent when care is taken to build capacity before change occurs. The economic blockade of Gaza in 2005 was another issue to consider the economic resilience in the context of the economic blockade, as a matter for consideration (Hamel, G. & Valikangas L, 2003: 67).

Communities, on the other hand, rely on the services provided by organizations to be resilient, enabling them to plan, and respond to emergencies and crises. Vital organizations, which provide services such as water, gas, electricity, transportation, education and health, have always been considered very important. This is because these are the organizations that enable communities to function. Organizations are part of society and are responsible for many of the day-to-day operations of communities. More importantly, organizations are critical during disaster response and recovery periods (Brunsdon Dave & Dalziel Erica, 2015: 72). Consequently, resilience is critical for organizations to ensure the survival of organizations and reduce disruption caused by a disaster in the current social flow (Zack, 2014: 54).

In addition to the relationship between resilient societies and resilient organizations, there is a relationship between the resilience of organizations and their competitive advantage. Compatible organizations have more competitive power when the business is in a normal state (Snafsen, 2015: 122). Other researchers point to common features between competitive advantage

competitiveness such as agility, environmental awareness, strong leadership, quality and so on. Organizational resilience seeks to identify characteristics that allow organizations to survive and even grow and prosper despite experiencing disruption or stress (Siahkoli, 2018: 86).

Organizational resilience, meaning the ability and capacity of an organization to face crises and challenges, and the ability to return to normal business conditions, is a very important feature that organizations must be equipped for the survival and continuity of their business. However, concern is not limited to catastrophes; There are also small deviations and uncertainties that challenge organizations. In this regard, Alexander et al. (2014) acknowledges that there are various businesses that do not have the ability to manage vulnerabilities; In such a way that in the face of business turmoil, they may be eliminated or taken over by powerful organizations (Alexander et al., 2014: 47). Thus, flexibility and adaptability for all businesses has become an important necessity in today's rapidly changing environment, and the need to develop a strong attitude towards it for all businesses is strongly felt. This research attempts to help organizations create and strengthen resilience in the face of crises and challenges and business continuity by providing a model for organizational resilience. In fact, business agility is one of the components of organizational empowerment and also a factor affecting the degree of resilience of the organization. Modern organizations are under increasing pressure to find new ways to compete effectively in a dynamic global marketplace. Many organizations have turned to e-commerce and virtual structures to improve business agility and expand globally.

These solutions increase the importance of information flow in the company and among the company's partners. To support the increase of information flow, new technologies are emerging rapidly (Stephen et al., 2006: 32).

Agility is an organization's ability to detect changes in the environment and respond quickly with a focus to customers and stakeholders by reshaping resources, processes and strategies (Augustino, 2015: 12).

Today, agility has turned organizations into a competitive advantage. Agility for the organization has the message that the era of predetermined logic and precise controls is over and other traditional methods and paradigms do not meet the needs of today's customers (Sharp, 2012: 37). Agility is a new paradigm that moves organizations towards innovation (Abbaspour, 2013: 59).

Today's organizations operate in an environment where rapid change requires them to have adaptable strategies. In fact, the problem of how organizations can succeed in a dynamic and unpredictable environment is an issue that is recognized as the most important challenge in today's world. Various solutions such as on-time production, re-engineering, virtual organizations and networking have been introduced, however the agility of the organization is one of the most popular one. In such an environment, agility has become an important capability that has many effects on the performance of the organization (Ravichandran, 2007: 132).

Speed and flexibility are central to the concept of agility. Organizations require the use of up-to-date technologies and information systems, investment in knowledge staff, coherence in business processes, alignment with virtual forms of the organization, internal and external cooperation and achieve an integrated supply chain to operate quickly and flexibly; Because only organizations can survive and compete in competitive markets that have been able to achieve such capabilities (Goldman et al., 2005: 143).

In agile organizations, human resources are the main sources of productivity. What goods or services customers pay for, depends on people who are able to meet customer needs with their knowledge, information and technologies that the organization provides (Goldman et al., 1995: 214).

Various researches have been done on the indices and components of organizational resilience. Johan et al. (2011) consider monitoring, forecasting, resilience, and response capabilities essential for organizational resilience. Tracy (2015) identifies the characteristics of

organizational resilience as: human resources, awareness, social capital, physical resources, operational infrastructure, leadership and culture, and information and communication. Stephenson (2010) identifies four dimensions for organizational resilience: situational awareness, management of underlying vulnerabilities, adaptive capacity, and resilience (commitment to resilience and network vision). Readiness and ability to plan, absorb and recover from maladaptive events, and successful adaptation are also characteristics mentioned by Feng and Sensuini. Caroline et al. (2016) also considers the dimensions of organizational resilience as situational awareness, goal unity, strategic partnership, internal resources, leadership, planning strategies, employee participation, innovation and creativity, decision making, breaking mental silos, and stress testing programs. Bernard et al. (2016) also discusses the number, quality, skills and expertise of individuals, financial and technical resources, learning and the acquisition of knowledge and experience as the organizational resilience.

Regarding the economic conditions and global crises and rapidly changing societies, organizations face many tensions that require agility and strengthening resilience to environmental crises and challenges. Business continuity requires a strong market attitude, communities rely on the services provided by organizations to enable them to be able to plan, respond and recover for emergencies and crises. Agility and resilience affect performance. In fact, agility and resilience in terms of time, quality and level of service provided to customers help to be more competitive. The result of combining these two approaches is improving organizational performance and, consequently, creating a competitive advantage for the organization. Organizations play a very important role in the speed of society's return to normalcy with the essential services they provide in times of crisis. The purpose of this paper is to design an organizational resilience model based on the components of business agility through a perspective based on signaling theory.

One of the types of these organizations that has both an effective role and a high impact role in

tensions and riots is the bank. Banking system has a very heavy responsibility in market-based economy and one of the most important components of the country's economy that determines the growth or stagnation of the economic structure with its activities is the banking system; Because the capital available in banks is the main source of purchasing products and services and their loans are a source of credit for all economic units, including families, businesses, companies and the government. Therefore, the optimal activity of banks and the effective use of marketing tools to achieve their goals, including the exploitation of capital and its equipment, will be very effective on various economic activities and the general state of the country's economy.

Regarding the role of financial and service institutions, banks have a decisive role in the circulation of money and wealth and have a special place in the Iranian economy. Banks, with the function of financial intermediaries, have the role of meeting the financial needs of production and commercial units. Banks must be able to attract micro-capital on the one hand and provide services to production and industrial units in the form of facilities to strengthen them on the other hand, and as a result, production units can play their role in the national economy properly. The huge changes have increased competition in the banking industry in recent years, however banks which are the most important source of financing for businesses, continue to play a key role in economic growth and development due to the lack of development of financial markets such as stock exchanges and securities. Playing this key role will be possible only in a stable and efficient banking sector with the possibility of attracting and allocating the reserves and financial resources of the society optimally.

Therefore, in this study, the aim is to provide a model for banks' resilience based on business agility with a view based on signaling theory; To do this, the mixed method (qualitative-quantitative) is used. The base model for this research is taken from the researches by Amiri et al. (2018) and Salehi Abarghoui et al. (2018) who have drawn the dimensions and components of the initial model of organizational resilience. In

fact, in this research, the base model is developed using the experts and Delphi method and a new model that is suitable for the current conditions of the organization and based on the agility of the organization is presented with a view based on signaling theory. In this research, semi-structured interview method is used to identify the components and dimensions of the model. To help and assist organizations and their flexibility, we need a plan that, in addition to making them agile, has resistance, and employees and competitors can help in organizational survival and development by receiving signals from the environment.

One of the theories that can be used by organizations to predict the future and provide appropriate programs to achieve their goals is the theory of signaling. The theory of signaling was proposed by Michael Spence, an economist from New Jersey, USA, who received the 2001 Nobel Prize in Economics for his research on asymmetric information markets. This theory was developed in response to the information asymmetry between the parties to the trade relationship when they have access to different types of information. This information asymmetry often occurs due to the characteristics of the service provider and their ability to meet the needs of customers as well as the distinction between them and other service providers. Signaling theory has been widely used in various fields to explain the phenomenon of customer choice. There are three main factors in this theory: the signal provider (service provider), the receiver, and the signal. Successful communication is required to have a high level of the transmitted signal and the signal strength is affected by the benefits.

In this theory, the idea is that one of the parties, called the agent, reliably transmits information about himself to the other party (the principle). Signals must be credible and valid; If the signaling is based on lies and unsupported, the sending center will be discredited. For example: The central bank threatens unauthorized financial institutions that must be legalized and act under central bank supervision to be protected. This threat is taken seriously when it takes action, otherwise other unauthorized financial

institutions will not consider the sent signal valid and will continue to operate outside the regulatory framework; in this way, the central bank will become a sign of discredit in the country's monetary system.

Therefore, signaling theory in the banking industry makes it clear that providing different signals and signs from the bank's internal and external environment can help bank managers to plan better. This issue will be more important in the discussion of organizational resilience because bank managers can provide the necessary measures for further resilience by receiving signals and signs about the financial and operational issues of their bank. This will also lead to greater bank agility and faster response to destructive events in the bank. Therefore, signaling theory will play an important role in creating more agility and thus increasing the resilience of the banking industry. In fact, many studies have addressed various issues related to resilience and its role in the organization. However, there are limited studies that have focused on resilience and the elements that affect it with respect to agility features. In fact, no specific research can be found inside that has presented the organization's resilience model based on agility. Also, the use of signaling theory-based approach to the discussion of organizational resilience used in the present study will answer many of the competing ambiguities over the acquisition of internal resources between units and their role in organizational resilience that have not been addressed in previous research. These few points in fact show the research gap in the field of the present study and clarify how the present research can help in this field to reduce the existing gap. Therefore, in this study, the organizational resilience model is designed based on the components of business agility with a view based on signaling theory in the branches of Bank Sepah in North Khorasan.

Considering that no suitable model has been presented in any of the internal and external researches to evaluate and present a conceptual model for designing organizational resilience model based on business agility components from a view based on signaling theory. This existing research gap necessitates the need for appropriate

and extensive research in this field. In this regard, this research tries to identify the indices and dimensions of business agility and resilience using a perspective based on signaling theory and designing a model for it to help organizations achieve the appropriate resilience.

Theoretical Foundations of Research

To Shafi (2005), the term, Resilience, derives from the science of materials, the ability to react to unexpected events and maintain balance and continuity of operations at the desired level, or return to their original state before irregularity or moving towards a new situation. In other words, the concept of extended resilience is the traditional concept of resilience; While disaster resistance is important to reduce disaster before it occurs, the concept of resilience goes beyond this idea and improves the performance and flexibility of a system before and after of disaster. Resilience was first studied at the individual and family level, and then the concept has spread to organizational issues in the form of social resilience. Organizations are required to perform social responsibilities to ensure the survival of the organization in whatever market they interact with. Social responsibility includes honesty, control, prevention of corruption, attention to human rights, workers' rights and the environment (Lajevardi et al., 2015: 16).

Given the importance of organizations in the survival of societies and the fact that organizations perform all their duties with the help and cooperation of their knowledge staff, special attention to this part of the organization is necessary. The successful organizations require planning and creating commitment and high trust, which is created through organizational support perceived by multi-skilled, specialized and committed employees. The current critical situation requires a flexible organizational structure that can quickly respond to environmental stimuli and turn threats into opportunities. In fact, agility is the speed of responding to dynamic and unstable market conditions and changes to the customer needs. Agility is an essential trait to maintain and gain a competitive advantage to respond to changes that are felt for the first time in the market or customer needs (Rostami et al., 2009: 28).

Recently, firms have increasingly relied on IT features to influence their perceptions and behavioral goals to send signals to customers. In particular, in making relationships, they often transmit signals to customers through the use of various Internet tools and applications such as secure socket layer encryption, and content and utility functions such as help tabs and FAQs are asked. Information technologies and online technologies have recently changed the communication structures between companies and their customers. The role of signals sent to the organization's websites, likes and exposure of personal information and comments about the organization can provide a signal for senior organizational managers. Advances in technology have affected the expectations of customers, employees and stakeholders, then organizations must evaluate their methods to keep up with emerging outcomes. Organizations around the world use emerging technologies such as email, web tools, mobile and telegram channels, etc. to communicate and receive effective signals (Run et al., 2011: 47).

Resilience, meaning the ability and capacity of an organization to face crises and challenges, and the ability to return to normal business conditions, is a very important feature that organizations must be equipped with for the survival and continuity of their business. However, concern is not limited to catastrophes; There are also small deviations and uncertainties that challenge organizations (Ron et al., 2011). In this regard, Alexander et al. (2014) acknowledges that there are various businesses that do not have the ability to manage vulnerabilities; In such a way that in the face of business unrest, they may be eliminated or taken over by powerful organizations (Alexander et al., 2014: 47).

Therefore, flexibility and adaptability for all businesses has become an important necessity in today's rapidly changing environment, and the need to create a strong attitude towards it for all businesses is strongly felt. This research seeks to help them create and strengthen resilience in the face of crises and challenges and business continuity by providing a model for organizational accountability.

One of the types of organizations that has both an effective role in tensions and riots is the bank. One of the most important components of the country's economy that determines the growth or stagnation of the economic structure with its activities is the banking system. Capital in banks is the main source of purchasing products and services and their loans are the source of credit for all economic units, including families, businesses, companies and the government. Therefore, the optimal activity of banks and the effective use of marketing tools to achieve their goals, including the exploitation of capital and its equipment, will be very effective on various economic activities and the general state of the country's economy. Regarding the role of financial and service institutions, banks have a decisive role in the circulation of money and wealth and have a special place in the Iranian economy. Banks, with the function of financial intermediation, are responsible for meeting the financial needs of production and commercial units. Banks must be able to attract micro-capital on the one hand, and provide services to production and industrial units in the form of facilities to strengthen them on the other hand; As a result, production units can play their role in the national economy properly. Therefore, the question that we seek to answer in this research is "what are the components and dimensions of organizational resilience in the country's banking industry?"

Communities rely on the services provided by organizations to be resilient, enabling them to plan for, respond to, and recover from emergencies and crises. Vital organizations, which provide services such as water, gas, electricity, transportation, education and health, have always been considered very important. Because these are the organizations that enable communities to function (Stephenson, 2010: 37).

In addition to the relationship between resilient societies and resilient organizations, there is a relationship between the resilience of organizations and their competitive advantage. Resilient organizations have more competitive power when the business is in a normal state (Snafsen, 2010: 39). Vargo and Seville (2010) also identify common features between resilience

and competitive advantage; Such as agility, environmental awareness, strong leadership, quality and so on. Organizational resilience seeks to identify characteristics that allow organizations to survive and even grow and prosper despite experiencing disruption or stress (Seville et al., 2008: 76). In this regard, Patten et al. (2003) consider resilience as a process for growth. Thus, the question arises: which components of agility can contribute to organizational resilience in the banking industry?

Despite the huge changes that have increased competition in the banking industry in recent years, banks, which are the most important source of financing for businesses, continue to play a key role in economic growth and development. However, playing this key role will be possible only in a stable and efficient banking sector with the possibility of optimal absorption and allocation of reserves and financial resources of the society. The position of banks in the growth of the country's economy has caused Western countries and the United States to impose sanctions on Iranian banks and thus make their activities in the country's economy very difficult. The same sanctions, along with the incorrect structure of banks in the country, have prevented Iran from experiencing single-digit inflation during the last 20 years, while only 25 countries in the world have a similar situation to Iran and their inflation rate is double-digit. This has made the conditions of banks' activities in Iran more and more difficult than ever. These difficulties put various pressures on the service process and financial activities of banks. Banks must strengthen their resilience and resilience to cope with these pressures, so that crises and pressures cannot prevent the continuation of banking activities. The four sources of financing the Iranian economy in recent years have been the banking system, the stock market, development budgets and foreign investment, and banks have been responsible for financing sectors of the economy in recent years, and the vulnerability of banks means the vulnerability of the economy. On the other hand, facial studies show that financial crises in developed countries such as the United States have led to a recession in the banking industry in other countries, including Iran. This means that not resisting tensions such

as financial crises in other countries can lead to recession and even bankruptcy of banks.

The results of not studying organizational resilience in the country's banking industry can lead to recession and even bankruptcy crises in the country's banks, a crisis that can have devastating effects on the country's economy due to the interdependence of the state economy and banks. Identifying the dimensions and components of organizational resilience can enable bank managers to identify the basic points and dimensions and components of resilience, to try to increase it in the organization, and thus a coherent and continuous strategy and plan for improve banking conditions for dealing with crises. Given that Iran's position is in jeopardy both in terms of geopolitics and natural geography and in terms of the manifesto of anti-arrogance and confrontation with capitalist systems, the resilience of organizations, especially banks, is of great priority and importance. Therefore, the general and main question of the research is what is the pattern of organizational resilience based on the components of business agility from the view of signaling theory in the banking industry?

Goals of Research

The main purpose of this study is to provide an organizational resilience model based on the components of business agility from the perspective of signaling theory in the banking industry. More detailed goals have been formulated as follows in line with this main goal:

۱. Explain the role of commitment and character on organizational resilience
۲. Explain the role of knowledge and situation awareness on organizational resilience
۳. Explain the role of social responsibility on organizational resilience
۴. Explain the role of adaptability capacity in organizational resilience
۵. Explain the role of flexibility in business agility
۶. Explain the role of accountability in business agility

۷. Explain the role of accelerating the delivery of goods and services in the agility of the organization

۸. Explain the role of integration capability and low complexity in business agility

۹. Identify valid received signals from the environment, competitors and employees

۱۰. Identify valid signals sent to the environment, competitors and employees

Hypotheses of Research

1) Does commitment and character affect the organization's resilience?

۲) Does knowledge and situation awareness affect the organization's resilience?

۳) Does social responsibility affect the organization's resilience?

۴) Does adaptability capacity affect the organization's resilience?

۵) Does flexibility affect the agility of the organization?

۶) Does accountability affect the agility of the organization?

۷) Does accelerating the delivery of goods and services affect the agility of the organization?

۸) Does the ability of integration and low complexity affect the agility of the organization?

۹) Are the signals sent to the environment of competitors and employees credible and valid?

۱۰) Are the signals received from competitors and employees credible and valid?

۱۱) What other signals received and sent to the environment, competitors and employees are credible and valid?

Method Of Research

Methodologically, this research is qualitative-quantitative. This is an applied research based on the purpose. The statistical population in this study is the managers and employees of Bank Sepah branches in North Khorasan province.

The statistical population of the research can be defined in two parts: qualitative and quantitative.

A) The statistical community in the qualitative sector includes experts in the country's banking industry. These people include senior managers, deputies, middle managers and senior banking experts in the branches of Bank Sepah in North Khorasan. In the qualitative stage, the statistical population includes 20 experts (senior managers of Bank Sepah branches in North Khorasan, Bojnourd and university professors) whose opinions are used during the Delphi method.

B) The statistical population in the quantitative part includes all senior managers, deputies, middle managers and senior banking experts in the Bank Sepah branches in North Khorasan, 557 people in 2020. In the quantitative method, the Cochran's sample size determination formula is used to determine the sample size. The Cochran's formula is as follows:

$$n = \frac{d^2 pq}{n(Z^2) pq}$$

The data collection tools in this study are the Delphi questionnaire and the final questionnaire. In the qualitative stage, first, organizational resilience indices are identified and determined based on business agility. The identified indices and components are provided to the experts in the form of Delphi questionnaire. In this questionnaire, experts were asked to give a score based on Likert five-choice range according to the importance of each index. At the end of the questionnaire, experts are asked to add to the model if they consider another component or index. This process will be done in several steps and the scores provided for each index will be obtained by all experts.

Finally, by performing the Delphi method and evaluating the scores, the final indices of the research are extracted. This means that the components of organizational resilience are analyzed and validated based on the components of business agility from a resource-based perspective, and the new component conceived in the minds of experts was extracted. In fact, at first, the indices and components of the research

model are identified in qualitative method and using interviews with experts, and these indices are presented to the experts in the form of a questionnaire in the quantitative stage, which is the second stage of the research. In the quantitative stage, after the final research model is identified in the qualitative section and the components and indicators of each component are determined, the final questionnaire is developed based on a Likert five-choice range and the final model and distributed among sample individuals and data.

The statistical techniques used in this research are descriptive and inferential statistics. In the field of descriptive statistics, statistical techniques such as frequency distribution table and bar charts, mean, mode, middle, standard deviation and variance. In the field of inferential statistics, Kolmogorov-Smirnov test with SPSS software is used to determine whether the data are normal or abnormal. Cronbach's alpha test is used to evaluate the reliability of the data collection tool (questionnaire). The formula for calculating Cronbach's alpha is as follows.

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum_{i=1}^K S_i^2}{S^2} \right)$$

In the inferential statistics test section, Delphi executive method, Kendall's coefficient of concordance and confirmatory factor analysis and structural equations using SMART PLS software are used to fit the model. In Delphi analysis, Kendall's coefficient of concordance is used to calculate the degree of coordination of experts' views. The Kendall's coefficient of concordance, showed by the symbol W, is a non-parametric test and is used to determine the degree of coordination between opinions.

Findings

Part I: Delphi

The Delphi technique was performed in three stages and in each stage a number of indices were removed based on the mean of Kendall coefficient and the opinion of experts in the model and the next stage was repeated by removing the weak indices. Finally, three stages of Delphi technique were performed; In the third stage, the results show that we have reached a

collective agreement and the indices are final. The results of the Delphi technique stages can be seen in the following tables.

According to the results of Table (1-4), since the value obtained for the Kendall test statistic in the

third stage (0.883) is significant at the error level of $\alpha = 0.01$ (sig < 0.01), it is inferred that there is a significant agreement regarding the questions among the respondents and the value obtained for Kendall statistics (0.883) indicates a very high consensus of the respondents.

Table 1. Delphi Method Results

indices	First stage	Second stage	Third stage
N	16	16	16
Kendall's W(a)	.387	.528	.883
Chi-Square	634.127	867.389	1285.278
Df	76	76	76
Asymp. Sig.	.217	.123	.000

At this stage, since Kendall statistic (0.883) indicates a very high consensus of respondents, the Delphi process was stopped in consultation with the consultant advisor, supervisor and analyst.

In this part of the Delphi test, the components and dimensions of the organizational resilience model in the branches of Bank Sepah in North Khorasan Province were reviewed and identified using the experts' opinions. At this stage, the experts were asked whether they agree with the following components as components and dimensions of the organizational accountability model in the branches of Bank Sepah in North Khorasan Province? They were also asked to indicate if they had any other components in mind. The results of Delphi technique show that the components and dimensions of organizational resilience in Bank Sepah branches in North Khorasan province have four components, which are:

- ۱) Commitment and Character
- ۲) Knowledge and situation awareness
- ۳) Social responsibility
- 1) Adaptability capacity

The results of Delphi technique show that in the field of banking, the components and dimensions

of the model of indices and signals in the market have two important signals, which are:

- ۱) Signals sent to the environment, competitors and employees
- ۲) Receiving signals from the environment, competitors and employees

Part II: Structural Equation Model

A) Confirmatory Factor Analysis

Figure (1) shows the model for measuring the dimensions and indices of the business agility model in the branches of Bank Sepah in North Khorasan Province. According to the output of this graph, all the obtained coefficients are significant, because the value of impact factor for each questionnaire is more than 0.5. As a result, it can be said that the results confirm the validity of the structure of variables and model dimensions. In other words, the validity of the structure of the questionnaire is approved and it can be used to collect data.

Figure (2) also shows the model for measuring the dimensions and indices of the business resilience model in the branches of Bank Sepah in North Khorasan Province. According to the output of this graph, all the obtained coefficients are significant, because the value of the impact factor for each questionnaire is more than 0.5. As

a result, it can be said that the results confirm the validity of the structure of variables and model dimensions. In other words, the validity of the

structure of the questionnaire is approved and it can be used to collect data.

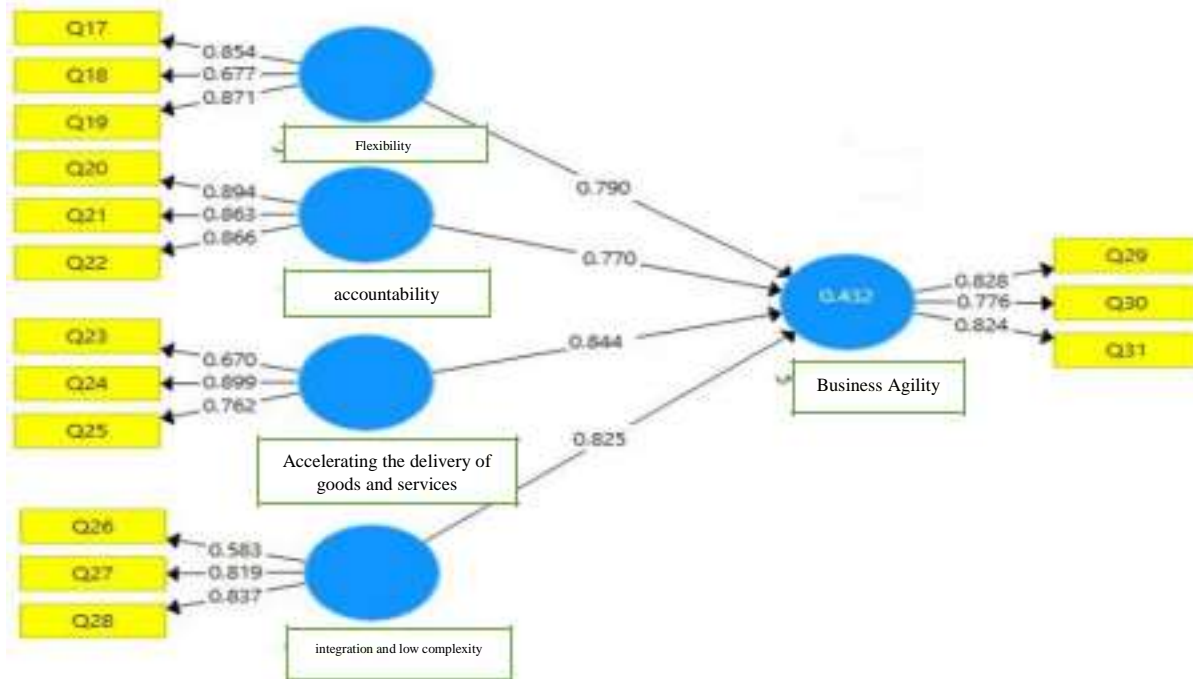


Figure 1. the results of the confirmatory factor analysis of the business agility model

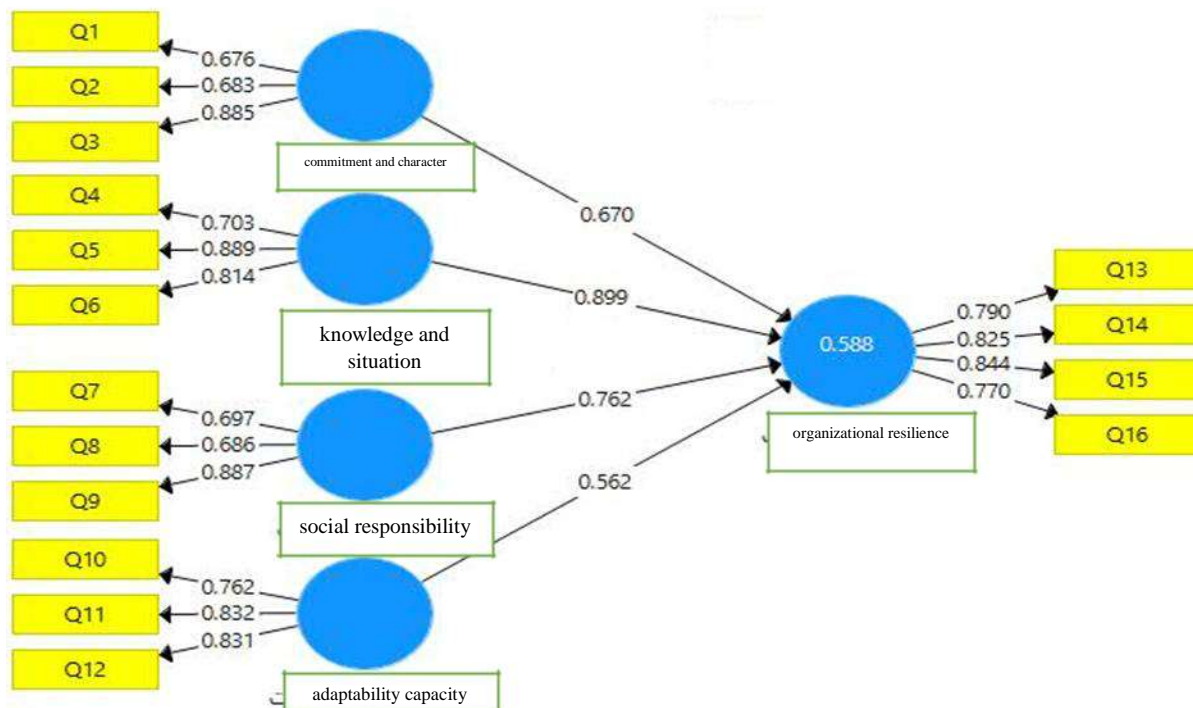
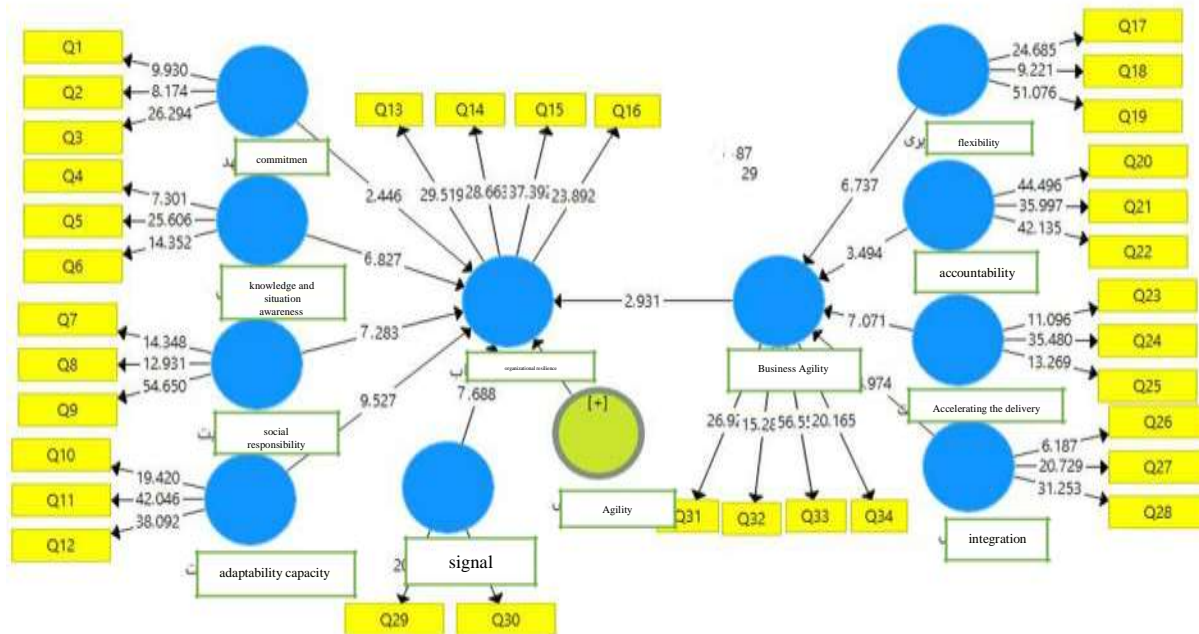


Figure 2. the results of the confirmatory factor analysis of the business agility model**A) Structural Equation Model****Figure 3. the results of the structural equation model of the research**

The results of Figure (3) show that all the obtained coefficients are greater than 1.96, and all of them are significant. Therefore, there is a significant relationship between research variables. The results show that the significance number of the research hypothesis is 2.446 and this value is more than 1.96, thus H_0 is rejected and the research hypothesis that examined the effect of commitment and character on organizational accountability in Bank Sepah branches in North Khorasan province is confirmed. Therefore, the structural model shows that commitment and character have a positive and significant effect on organizational accountability in Bank Sepah branches in North

Khorasan Province. Also, the significance number of the research hypothesis is 6.827 and this value is more than 1.96, then H_0 is rejected and the research hypothesis that examined the effect of knowledge and situation awareness on organizational accountability in Bank Sepah branches in North Khorasan province is confirmed. Therefore, the structural model shows that knowledge and situation awareness have a positive and significant effect on organizational resilience in Bank Sepah branches in North Khorasan Province.

The general results of the research hypotheses are presented in Table (2).

Table 2. general results of research hypotheses

hypothesis	Statistics t	Confirm / Reject of Hypothesis
Does commitment and character affect the organizational resilience?	4/362	Confirm of Hypothesis

Does knowledge and situation awareness affect the organizational resilience?	9/825	Confirm of Hypothesis
Does social responsibility affect the organizational resilience?	9/290	Confirm of Hypothesis
Does adaptability capacity affect the organizational resilience?	4/581	Confirm of Hypothesis
Does flexibility affect the business agility?	7/532	Confirm of Hypothesis
Does accountability affect the business agility?	4/463	Confirm of Hypothesis
Accelerating the delivery of goods and services affects the agility of the organization?	6/587	Confirm of Hypothesis
Does integration and low complexity affect business agility?	9/746	Confirm of Hypothesis
Are the signals sent to the environment of competitors and employees credible and valid?	4/358	Confirm of Hypothesis
Are the signals received from competitors and employees credible?	7/842	Confirm of Hypothesis

Research Recommendations

Given the confirmation of the impact of strategic agility components on resilience, the following recommendations are made:

- ۱) To improve and enhance the agility factor, it is suggested that managers have comprehensive support for knowledge sharing, provide conditions to increase trust between employees and employees' trust in the organization and its managers, and facilities and tools to share knowledge promoting the organizational culture in the company.
- ۲) It is suggested to determine policies and procedures for creating, storing and disseminating knowledge in the company, to give importance to knowledge sharing in the perspective of the organization, and to develop programs and procedures to create a culture of knowledge exchange.
- ۳) Sharing employees' information about successful work activities and good ideas with each other, paying attention and emphasizing learning and encouraging employees to work as a team can improve business agility and consequently improve the organization's resilience.
- ۴) Situation knowledge and awareness can help the company to respond to environmental changes and speed up the response to environmental issues, which in turn can lead to better attention and emphasis on learning as a team and encouraging employees to work as a team.
- ۵) It is suggested to develop staff skills in line with organizational goals, review the current situation of the bank in the market and analyze and evaluate the signals received from the environment. Social responsibility in recent years in our country Iran, like other countries has become doubly important. This category leads to building trust among the organization's customers and creates a positive mindset in them. Therefore, it is suggested that the social responsibility of the bank towards the society be properly implemented and its results be informed to the society.
- ۶) Mutual commitment between the organization and employees creates a team spirit and empathy in the organization. This issue is one of the factors affecting the organization's resilience, thus it is suggested that bank managers pay more attention to this issue.

References

۱. Asghari M. (2014), "The Family and Its Role in The Resistance Economy", Islamic Social Studies, 20th year. 3rd Issue (102), pp. 75-95.
۲. Amiri M. Olfat L. Faizi, Salehi K. Abarghavi M. A. (2018), "Designing a Model for Organizational Resilience", 11th Year, No.44, pp. 35-65.
۳. Aghalari Z. Tirgar A. (2015), "Study of The Pattern of Material Recycling in Families with Regard to Islamic Culture", Journal of Islam and Health, No. 4, pp. 21-26.
۴. Aghaie F. (2015), "Golden Strategies for Reducing Water Consumption", Technical Affairs Department of Isfahan University of Medical Sciences. <http://tosea.mui.ac.ir>.
۵. Tabii H. Kouchikzadeh S. Kochikzadeh A. (2013), "Requirements of Resistance Economy and Its Relationship with Lifestyle Model", National Conference on The Style of Life in Modern Islamic Civilization of Imam Hossein University (AS).
۶. Derakhshan M. (2012), "The First Meeting of Resistance Economics: Theoretical Foundations", Research Institute of Humanities, Allameh Tabatabai University.
۷. Pahlavan H. and Razavi R. (2007), Sukuk Papers: Definition, Types and Structure. Research Report of Islamic Research, Development and Studies Management Affiliated to Tehran Stock Exchange.
۸. Najafi M. (2006). "Study of The Financing Process Through the Issuance of Sukuk Bonds"; Exchange Monthly
۹. Asadi A. (2014). "Islamic Economic System as a Complete Model for Resistance Economy", Journal of Strategic and Macro Policies, No. 5.
۱۰. Hashemi Seyed Javad and Pour Abdi s. (2013), Economic Threats and Resistance Economy, Isfahan, Shakhes-Pajoo Publishing.
۱۱. Sedaghatparast A. (2015). "Are Islamic Banks More Resilient in The Financial Crisis?", Trend Quarterly, Year 22, No. 71, pp. 193-234.
۱۲. Ghiyasvand A. and Abdolshah A. (2015), "Economic Resilience Indices", Trend Quarterly, Year 22, Issue 71, pp. 79-106.
۱۳. Lajevardi H. Abu Nouri I. and Beshartirad Z. (2016), "Estimating the Index Of Economic Resilience In Iran And Providing Solutions For Improvement", The First International Conference On Urban Economics (With The Approach Of Resistance Economics, Action And Practice).
۱۴. Peyghami A. and Mansouri S. (2014), "Comparative Study Of Resilient Economics Literature And Social Welfare Planning; Presenting A Combined Conceptual Model", Afagh-e-Asmat Quarterly. 7th year. No. 25.
۱۵. Abdul Shah F. and Ghiasvand A. (2015), "Concept and Evaluation of Economic Resilience in Iran", Quarterly Journal of Economic Research. 15th year, No. 59, pp. 187-161.
۱۶. Babaei R. (2011), Explaining and Prioritizing the Factors Affecting the Selection of Contractors for Outsourcing Activities (Case study of the Information Technology Office of Semnan Electricity Distribution Company).
۱۷. Jamali G. Hashemi M. (2011), Assessing the Relationships Between Factors Affecting the Risk of Information Technology Projects in Bank Mellat in Bushehr Province Using Fuzzy Dematel Technique. Information Technology Management, 9-45-21.
۱۸. Khavandkar J. and Rahnavard F. (2008), The Effect of Knowledge Sharing on Success in Outsourcing Information Technology Services. IT management
۱۹. Seyed Yeri Javadi A. (2011), Customer Satisfaction Evaluation in IT Outsourced Projects in Mashhad Municipality.
۲۰. Gholipour A. and Rasouli H. (2011), The Effect of Information Technology on Organizational Behavior: The Effect of E-Mail on Faculty Evaluation of Students. Information Technology Management. 7 (3), 115-131.
۲۱. Musa Khani M. and Mohammadi S. Modiri M. (2011), Determining the Key Success Factors in Risk Management of Information Technology Projects in Virtual Organizations.
۲۲. Hosseini A. Jafari Baziar F. (2019), "Organizational Resilience from The Perspective of Employees and Managers", Management Studies, No. 91.
۲۳. Ebrahimi A. (2017), "Comprehensive Analysis of Factors Affecting Organizational Resilience in Small and Medium Industries",

- Organizational Resource Management Research, No. 3.
۲۴. Amiri M. (2018), "Model Plan for Organizational Resilience", Productivity Management. No. 44.
 ۲۵. Izadi H. (2017). "Identification Of Effective Components in Reducing the Resilience of Organizations in Crisis Situations, Using the Analytic Hierarchy Analysis Model (Case Study of Amol Fire Department)", - Crisis Prevention and Management Knowledge Quarterly, Volume 7, No. 4, pp. 307-319.
 ۲۶. Archibugi, D, Filippetti, A, Frenz, M. (2013), The impact of the economic crisis on innovation: Evidence from Europe, Technological Forecasting & Social Change, 80, 1247-1260
 ۲۷. 14. Briguglio, L., Stephen P., Growth and Resilience in east Asia and the Impact of the 2009 Global Recession, Available at: http://www.um.edu.mt/_data/assets/pdf_file/0011/141959/Growth_with_Resilience_in_Asia_5Dec2011.pdf
 ۲۸. Chakrabarti, R and Setren, E, (2011), The Impact of the Great recession on School District Finances: Evidence from New York, Federal Reserve Bank of New York Staff Reports, no. 534, December,p:51.
 ۲۹. Chubrik, A. Dabrowski, M, Mogilevsky, R, Sinitsina, I (2011). The impact of the global financial crisis on education and health ...,CASE-Center for Social and Economic Research on behalf of CASE Network 12 Sienkiewicza, 00-010 Warsaw, Poland,p-91
 ۳۰. European Commission/EACEA/Eurydice (2013). Funding of education in europe 2000-2012: the impact of the economic crisis– Eurydice Report, Publications Office of the European Union, Luxembourg. www.oecd.org/edu
 ۳۱. Evans, W. N. Schwab R, M, Wagner K. L, (2014), The Great Recession and Public Education, department of economics University of Notre Dome and University of Maryland. https://www3.nd.edu/~wevans1/working_papers/RussellSagePaper_final.pdf
 ۳۲. Farjo, A. J. (2011). Economic sanctions and primary school enrollment in Iraq, A Thesis submitted to the faculty of the Graduate School of Arts and Sciences of Georgetown University in partial fulfillment of the requirements for the degree of Master of Public Policy in Public Policy.
 ۳۳. Moazzam Farooq and Sajjad Zaheer .(2015). Are Islamic Banks More Resilient during Financial Panics? International Monetary Fund WP/15/41.
 ۳۴. A CARRI Report (2013), Definitions of Community resilience: an analysis, community & regional resilience institute.
 ۳۵. David Platt(2013), Resilient futures creating opportunity ahead of complex change, , Resilient Futures network.
 ۳۶. Document of the World Bank, 2010, Croatia Social Impact of the Crisis and Building Resilience ,Human Development Sector Unit ,Europe and Central Asia Region.
 ۳۷. Lino Briguglio , 2014, A VULNERABILITY AND RESILIENCE FRAMEWORK FOSMALL STATES ,University of Malta.