

**ENVIRONMENTAL TURBULENCE, PREVIOUS EXPERIENCE,
ORGANIZATIONAL CAPACITY FOR CHANGE AND
CHANGE PROJECT PERFORMANCE**

Sahar Ahmadian^{1*}, Ali Rastegar², Vahid Malekmohammadi³

^{1,3}Department of Management, Buinzahra Branch, Islamic Azad University, Buinzahra, Iran

²Department of Management, Science and Research Branch,
Islamic Azad University, Tehran, Iran

E-mail: ¹⁾ dr.ahmadian1@gmail.com, ²⁾ ali.rastegar1353@gmail.com,
³⁾ vahid.malekmohamadi@yahoo.com

Abstract

There is a growing body of research on the importance of organizational change project performance in the environmental turbulence. However, knowledge about this subject is still limited. To address this gap, this research is an attempt to investigate if environmental turbulence and the previous experience of an organization can influence its capacity for change and influence its performance. To answer this question, a cross-sectional survey was used to gather data for this study. To this purpose, out of 230 experts in one of the organization in Iran, 160 were sent the questionnaires, and data from 156 usable and completed questionnaires were analyzed. The analysis of inferential data was carried out using Partial Least Squares Structural Equation Modeling with the help of Smart PLS software. Finding showed environmental turbulence and its dimensions including intensity, technological turbulence, and market turbulence have a positive effect on organizational capacity for change. Moreover, the previous experience of change affects organizational capacity for change. Data analysis also indicates that this capacity has an effect on the performance of change projects. Different organizations of any size can use the results of this study to increase the performance of change projects.

Keywords: Change Experience, Change Project Performance, Environmental Turbulence, Organizational Capacity for Change

1. INTRODUCTION

An organization's performance is influenced by a set of conditions, components or external forces known as environment and the management of such influences depends on the extent to which organization can control them. Environment is a critical resource affecting the mission of organizations, the continuity of their operations and decision. It is the only source of data for organizations and the place in which the results of the data are consumed.

Ahmadian et al. (2023) stated that in today's complex and changing world where there is a lot of competition between different societies in order to obtain the latest technologies, the most economical resources and the most experienced human resources, human resources and especially creative, innovative, entrepreneurial people and owners of new ideas are considered valuable are the most organizational capitals.

New organizational structures have been changing and organizations and their human resources have been affected by various threats. As environment is constantly changing, having update knowledge of it and its associated public and private events are

necessary for the success, survival and development of organizations. Organizations are basically based on the perceptions and knowledge of its founders, authorities and specialists. They make decisions with reference to the context of the environment and align themselves with the goals, missions, strategies, and policies of the environment. Organizational managers need to have a good understanding of the environment, structure, behavior of variables, and environmental organization to improve the delivery of their products and services. Such knowledge helps them to meet the needs, expectations, and demands of the community.

The decision makers of organizations can use this knowledge to align their decision with the context of the environment and the mission of the organization. Due to the rapid changes in the world, organizations are facing the unpredictability of turbulent business environments. What differentiates the current business environment from previous environment is the growing uncertainty and environmental turbulence. Under such conditions, making a successful decisions based on rules and regulations is difficult. In today's world, the major culprit of failures in businesses is their inability to keep up with changes, overcome turbulences or cope with it.

Due to frequent turbulence in the last century, managers of today's organizations need to pay more the attention to the consequences of plans and decisions in future than the current results of such decisions. Since rapid and unpredictable changes, constantly distort previous decisions and assumptions and surprise organizations, organizations need to change on a regular basis to adapt themselves to the changes of their environment. Environmental changes have an undeniable effect on the strategy, the success or failure of organizations. Many profitable and successful organizations have faced such changes in their environments and experienced bankruptcy and death. The reason for such failure has been their lack of ability to cope with these changes. These organizations are subject to fail because they do not have the capacity for change on a constant basis and cannot align themselves with the complexity and environmental turbulence (Hekmann et al., 216).

Therefore, one of the most important and effective aspects of organizational orientations is how the environmental changes and turbulence should be dealt with. In spite of the importance of organizational capacity for change and environmental turbulence, less has been documented on these constructs in Iranian context. Turbulence such as market turbulence, technological turbulence, and competitive intensity increase organizational capacity for change and eventually enhance change project performance.

The purpose of this study is to see if the previous change experience of an organization and the environmental turbulence dimensions (i.e. competitive intensity, technological turbulence and market turbulence) influence on its change capacity and its change project performance. This study makes several contributions to the existing literature. First, though previous studies (Hekman et la., 2016) have provided evidence supporting the positive role of previous change experience on organizational capacity for change, and supporting the positive role of organizational capacity for change on change project performance. Few studies have shed light on the effect of environmental turbulence on organizational capacity for change. In this study, we bridge this gap by proposing two important factors (including; previous change experience, and environment experience) that effect on organizational capacity for change. Specifically,

the results suggest transformational leaders provides a view of how they increase their change capacity for their organization. Moreover, the findings of this study enrich the current literature on transformational leader by identifying types of environmental turbulence that can help them develop change project performance.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Previous Change Experience

According to research in different areas (e.g., MBA, production, entering, and management alliances) which are underpinned by curve models (e.g. experience) organizational processes develop through organizational experience (Bingham and Eisenhardt, 2006). These results also apply to organizational change. Therefore, organizations can only develop their abilities and capabilities to act and execute change through existing changes (Heckmen et al., 2016). In general, organizations learn to change through changes (Amburgey et al., 1993; p. 54). Meyer and Stensaker (2006) have referred to routine change and have defined it as developing or using structures, processes, and procedures for different types of changes and in manifold change contexts. Organizational daily routines help to strike a balance in the context of multiple changes (Feldman and Rafaeli 2002). Therefore, developing a shared understanding of change initiative is important and necessary. This exchangeable information promotes social support and creates an idea for change (Bechky, 2003; Gioia and Chittipeddi, 1991). Therefore, the experience of previous changes plays a key role in developing organizational capacity for change (Heckmann et al., 2016). Heckman and their colleagues in their research showed that the experience of previous changes affects organizational capacity for change. They also found that the number of important experiences and their quality are important to organizational capacity for change. Therefore, it can be assumed that:

H1: Previous change experience has an impact on organizational capacity for change.

2.2. Environmental Turbulence

Environmental turbulence has an undeniable effect on the strategy, as well as the success or failure of any organization. Environmental turbulence is a broad construct that refers to all the phenomena outside the organization. In general, it includes all factors that are outside the organization's boundaries and have the potential to influence all or part of the organization (Daft, 2001). The dimensions of the environment analysis are the set of internal features that can be used to measure the environments. Several scholars such as Aldrich, Marsden, Pfeffer and Nowak , and Greciek have attempted to analyze the environment and determine its dimensions (Hall, 2002; p. 360).

According to Des and Bard (1984), the dimensions examined by the aforementioned researchers can fall under three categories namely environmental capacity, complexity and dynamism. In today's turbulent and dynamic market, the only thing that has always maintained its own stability and existence is organizational change. Wickes et al. (2004) have linked the growth and survival of many companies and organizations to the advancements in their environment. Examples of such companies are

knowledge-based companies which use technological knowledge continuously to find new ways of producing and delivering their knowledge products to the market.

Contextual dimensions consist of environmental dimensions which include the analytical factors. Lynch (2000) categorized these dimensions into four categories including social variables, economic variables, and technological variables. These wide ranging factors can influence the performance of organizations. Environmental turbulence is a measure showing changes in an organization's contextual environment, and turbulent environments are characterized by a high level of change, dynamism, complexity, uncertainty and low level of capacity of the environment (Kalderat, 2003, p. 3) and its amount and level can be measured by the following elements:

1. Capacity: The extent to which the environment is poor or rich in terms of the level and amount of accessible resources.
2. Complexity: A number of external factors that interact with each other and affect the organization.
3. Dynamics: Rate and intensity of changes in environmental factors (Des and Bard, 1984; p. 52-57; Hall, 2002; p. 360-364)

Success in the market, obtaining competitive advantage and its perservance are among the most important goals influencing organizational change plans. However, succeeding in the external market and preserving competitive advantage first requires success in the market (The market whose customers are internal elements of the organization) (Mosleh, Bahrainzade and Alhahyari, 2003) and the key to success is implementing organizational change plans.

In fact, having a plan to meet the needs of customers within the organization is necessary for successful implementation, appropriate marketing, and organizational change. The existing philosophy and survival of knowledge-based companies require innovations in their work field. As the change initiative requires the general tendency of companies towards accepting new changes, identifying ways to increase the tendency of its employees for accepting new changes is a key factor to the success and survival of these companies (Mosleh and Bozjani, 2004).

Environmental uncertainty, one dimension of the external environment, is the results of three situations: Lack of information about the environmental factors that influence the decision-making, lack of ability to determine probabilities (with any degree of certainty) at which environmental factors contribute to the success or failure of that organizational decision-making unit, the lack of information related to costs related to a decision or inappropriate activity.

Many researchers have shown that environmental certainty and uncertainty are not really an environmental dimension; it is the decision maker's perception of environmental information. For this reason, they are perceived as perceived environmental uncertainty. In 1974, Jarkovich states that in three cases, the environment can be called non-repetitive:

1. When people complain about the information they need to make a decision,
2. There is doubt if the information is correct
3. The decision maker is uncertain about the classification of the required information

Change is the most important part of the external environment and environmental uncertainty and it is a predominant feature of a turbulent environment (Emery & Trieste, 1965). A heterogeneous environment has shown to create different organizational behaviors (Lawrence and Lorsch, 1967). To assess uncertainty, Lawrence and Lorsch (1967) developed a questionnaire measuring uncertainty in marketing, production, and research. The items were on the respondents' perceptions of lucidity of information, the general uncertainty of causal relationships, and the lack of specific feedback in relation to the outcomes of each operational segment of the environment.

Later in 1972, Duncan expanded the components of environmental uncertainty which was proposed by Lawrence and Lorsch (1967) and added another component to them. The two primary components are

1. The lack of information on environmental factors related to decision-making situations
2. The lack of awareness of the extent to which the organization would lose if the decision were incorrect

The third component which was proposed by Duncan (1972) was the lack of ability to determine the probabilities (with any degree of assurance) at which environmental factors contribute to the success or failure of that organizational decision-making unit while performing its duties.

The severity of uncertainty in the external environment is determined by two criteria:

1. Simplicity or complexity of the environment: This indicates the uncertainty of the external factors of an organization and the number of these factors.
2. Stability or instability of the environment: It indicates sudden changes in external factors.

For measuring environmental uncertainty in organizations, different models have and criteria been developed (see Table 2). In this research, uncertainty is conceptualized as a function of changes and it refers to the inability of predicting customers' needs, competitors' activities and technology, and the supply of primary materials and demand (Rezvani and Shaham khodam, 2012).

In their research, Judge and Douglas (2009) showed that there is a significant and positive relationship between environmental uncertainty and organizational capacity for change. Heckmann et al. (2016) also found that environmental turbulence affects organizational change. Mahmoud Hamad (2016) categorized environmental turbulence into three categories: competitive intensity, market turbulence, and technological turbulence. This study conceptualizes competitive intensity as an intense competition that may exist among competitors of an organization in the market. Technological turbulence refers to the speed of technological change in the industry. Market turbulence refers to the instability and changes in the needs and the desire of customers (Mahmoud Hamad, 2016). Based on the literature review, this research assumes that:

- H2. Competitive intensity influences organizational change capacity.*
- H3. Technology turbulence affects change project performance.*
- H4. Market turbulence affects change project performance.*

2.3. Organizational Capacity for Change and Projects Performance

The relationship between change project performance and organizational capacity for change is well established. Organizational capacity for change is conceptualized as the ability of an organization in ‘leading and managing cascading series of inter-related change initiatives’ (McGuinness and Morgan, 2005; p. 1312) and in developing and implementing appropriate organizational changes (Klarner et al., 2008, P. 58). One of the benefits of organizational capacity for change is that for changing capacity, organizations do not need to start from the beginning when they go through organizational change because employees and the organization are ready for change. Organizations that have reached a certain level of change capacity will be able to reduce the time and effort required for launching and implementing a change project (Pagliarella, 2000). Such organizations meet their change goals faster and efficiently and can take advantage of market opportunities faster or respond to external changes (Lawer and Worley, 2006; Pagliarella, 2000). Based on the literature review, this research assumes that:

H5. Organizational capacity for change influences Change project performance.

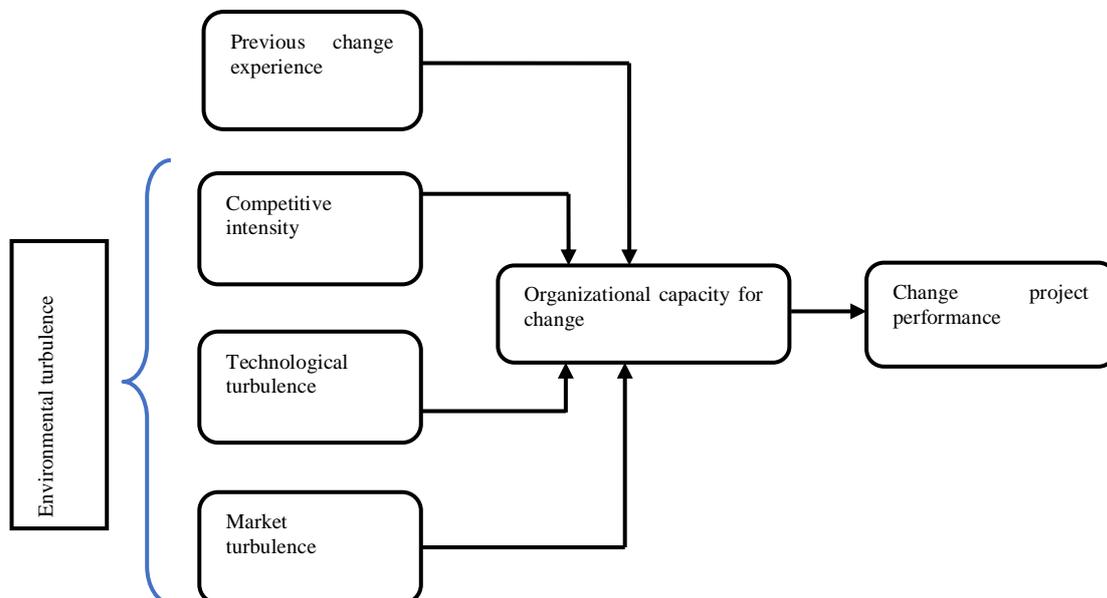


Figure 1. The Conceptual model of the study

3. IMPLEMENTATION METHOD

The current research was applied and the research design was descriptive. Since the data collection has occurred at a specific time interval from a specific sample, this study was a cross-sectional one. In this research, the data were analyzed using descriptive and inferential statistics. In the first phase, the measurement model then the structural model was tested using Smart PLS software. This software can be used when the sample of study is small or the data is not normal (Ringel et al., 2012). To test the hypothesis of the research, the Smart PLS software, and bootstrapping was used for calculating the T-values.

3.1. Sample and Sampling Technique

Out of 230 experts at organization in Iran, were 156 participated in this study. The sufficient sample size representative of employees in this study was 144 based on the Krejcie and Morgan's (1970) Formula. However, given that some of the questionnaires may be unusable because of heterogeneous, unreliable and uncompleted data, 160 participants were sent the questionnaires, and data from 156 usable and completed questionnaires were analyzed.

3.2. Instruments

Competitive intensity: Mahmoud Hamad's (2016) instrument was used to measure competitive intensity. This construct is measured by intense competition, high discounts and sale promotion in the market, the ability to imitate competitors, strong and daily competition.

Technological turbulence: Mahmoud Hamad (2016)'s instrument was used to measure technological turbulence. This construct is measured by the high rates of technological change, the creation of large market opportunities due to technological changes, the creation of ideas for new products, the necessity of being adapted to technological changes for competition, the unpredictability of technological changes in the environment.

Market turbulence: Mahmoud Hamad (2016)'s instrument was adopted to measure market turbulence. This construct is measured by customers' priorities for technological change, customers' tendency to have new products, customers' sensitivity to prices, increase in new customers' demands, a sharp differentiation between the need of current customers and that of new customers.

Previous change experience: For measuring the previous change experience, the instrument developed by Heckmann et al., (2016) was adopted. According to Heckmann et al., (2016) this construct is measured by two items; having beneficial change experience in the past 3 years, having positive change experience in the past 3 years.

Organizational capacity for change: In this research, Judge and Douglas (2009)'s instrument was used to measure organizational capacity for change. This construct comprised eight dimensions measured through 32 items on a Likert scale. The items are reliable leadership, optimistic followers, capable heroes, intermediate managers, innovation culture, responsive culture, system thinking, and communication system.

Change project performance: For measuring the performance of change project, the instrument developed by Heckmann et al., (2016) was adopted. According to Heckmann et al., (2016) this construct is measured by four items; the positive results of change projects, the advantages of change projects, the progress of change projects, the improvement of change project. In this study, this construct does not refer to a specific project, but it includes all change projects that meet an organization's primary goals (Waldersee and Griffiths, 2004; Waldersee et al., 2003).

3.3. Validity and reliability

As the threshold for Cronbach Alpha is 0.7 (Cronbach, 1951) and the value for composite reliability is 0.7 (Nunnally, 1978) and this amount for average variance extracted is 0.5 (Fornel and Larcker, 1981), it can be concluded that the questionnaire used in this study show an appropriate level of reliability and convergent validity.

4. RESULTS AND DISCUSSION

The data of this study support all hypothesis. As the t-value is more than 3.27. The result of first hypothesis is consistent with the study in this area by Worley and Lawler (2009). In their research, they found that gaining experience in day-to-day activities increases organizational capacity for change. Data supporting this hypothesis also echoes the result of research by Meyer and Heimerl-Wagner (2000). In their research, they found negative, high-risk experiences decrease organizational capacity for change. Our study lends additional support to the findings of Heckmann et al., (2016) on an organization's past experience. Heckmann et al., (2016) carried out a study on 134 companies in Germany and found that the frequency of experience and its quality positively affects organizational capacity for change. This result of second hypothesis supports the finding of Judge and Douglas (2009). In their research, they showed that the perceived environmental uncertainty is significantly and positively associated with organizational capacity for change. The result supporting this hypothesis concurs with the findings of Heckmann et al., (2016). Based on their study, increasing competitive intensity has a positive effect on organizational capacity for change.

The result of thirth hypothesis showed that technological turbulence is significantly related to organizational capacity for change at a coefficient of 20%. This confirms the previous finding of Heckmann et al., (2016). In their research, they reported that technological turbulence affects organizational capacity for change. The result of forth hypothesis is in line with the results of the previous study (Barney et al., 2001; Comings & Werry, 2009; Lawler & Wearley, 2006; Paglarella, 2000; Rindwa and Kuta, 2001; Shipton et al., 2012). All these studies have highlighted the significant role of organizational capacity for change in the organization's competitive position in a dynamic and changing business environment. They have shown that the competitive advantage of organizations in dynamic markets is only due to their ability to change continuously. The finding of fifth hypothesis confirms showed that competitive intensity has a positive effect on organizational capacity for change. This result substantiates the finding of Judge and Douglas (2009). In their research, they showed that the perceived environmental uncertainty is significantly and positively associated with organizational capacity for change. The result supporting this hypothesis concurs with the findings of Heckmann et al., (2016). Based on their study, increasing competitive intensity has a positive effect on organizational capacity for change. Table 1. Shows the summary of structural model for hypothesis testing

Table 1. Summary of structural model for hypothesis testing

Hypothesis	Significant coefficient	Standard of coefficient	Result
H1: The previous change experience of an organization positively affects its organizational capacity for change.	3.075	0.097	Not rejected
H2: Competitive intensity positively affects organizational capacity for change.	4.931	0.437	Not rejected
H3: Technology turbulence positively affects organizational capacity for change.	3.947	0.198	Not rejected
H4: Market turbulence positively affects organizational change capacity.	4.031	0.407	Not rejected
H5: organizational capacity for change positively affects change project performance.	4.931	0.437	Not rejected

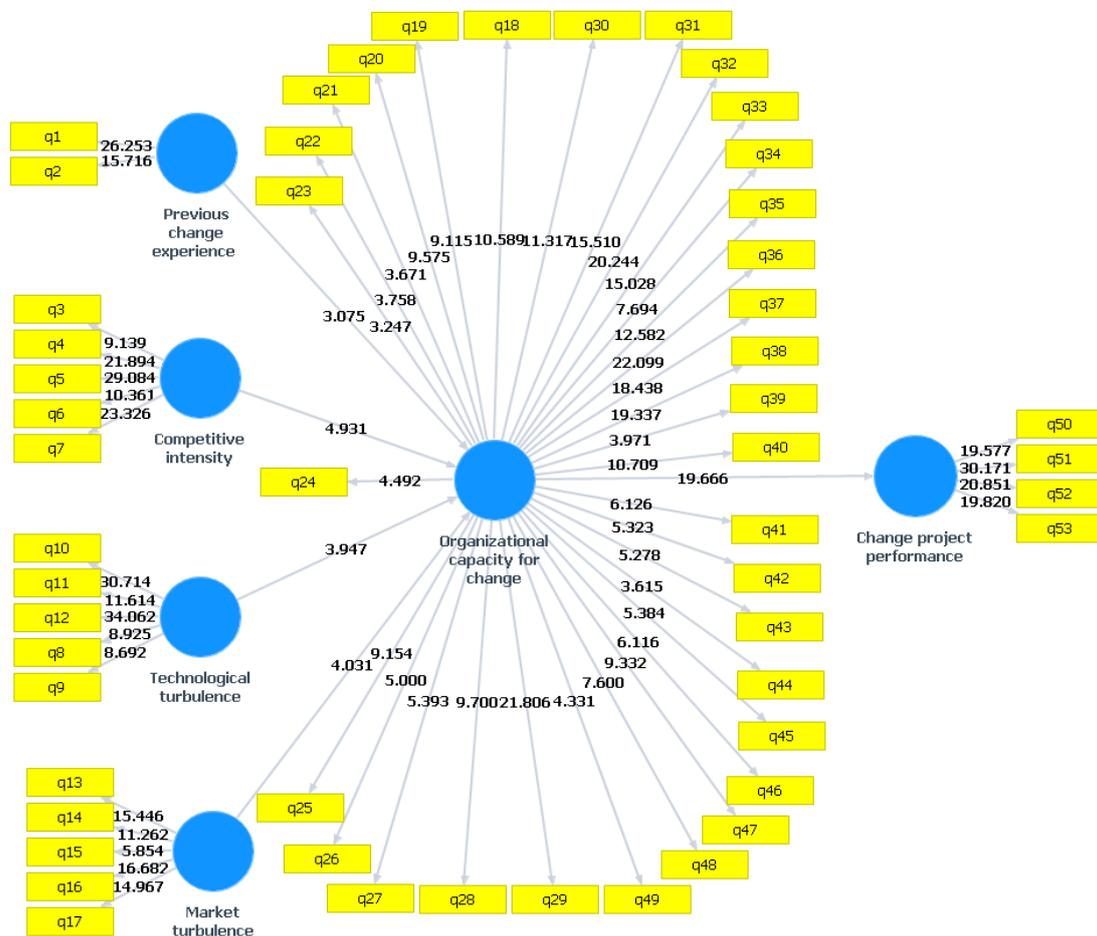


Figure 2. T-value results

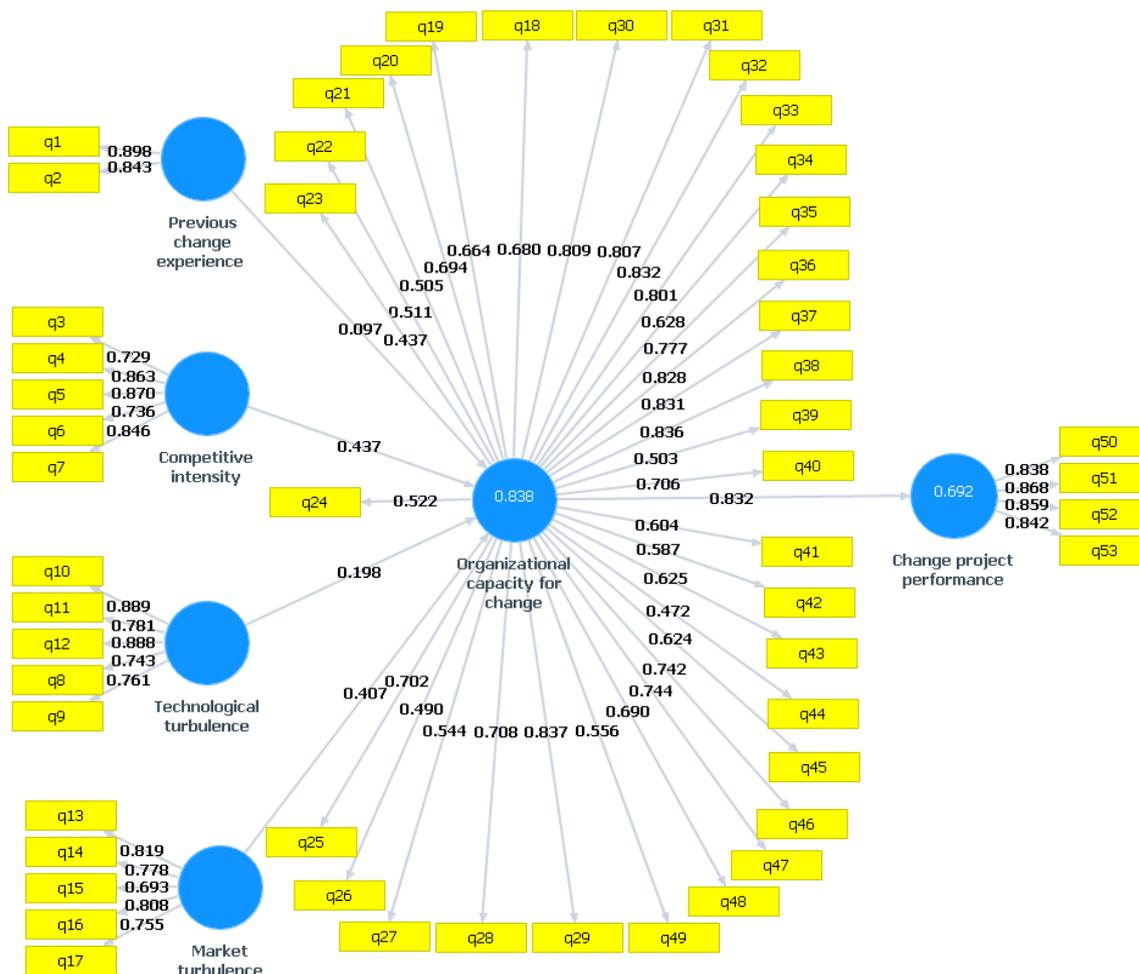


Figure 3. Factor loading results

There are some limitations to this study. First, since the survey was conducted in Iran, the generalization of the results may be limited. It is not appropriate to apply the findings of this study to other countries. Second, survey participants were on one organization which could also affect the results of this study. If future studies consider such behaviors, a more comprehensive approach to grocerant transformational leader could be found.

5. CONCLUSION

This study was an attempt to investigate if environmental turbulence and past experience of an organization influence its capacity for change and project performance. To this purpose, data were gathered through the questionnaires from 156 employees of the consumers and producers protection organization. Analysis of the data indicated that the previous experience and environmental turbulence dimensions, including competitive intensity, technological turbulence, and market turbulence, had a positive effect on

organizational capacity for change and this capacity positively affected project performance. In order to determine which of four variables had a stronger effect on organizational capacity for change, standard coefficients were measured. The beta coefficient for the competitive intensity was 0.437 and this value for the turbulence of the market was 0.407. Comparing the beta coefficients showed that these two variables had a bigger effect on organizational capacity for change. To measure the effect of the items related to each independent variable, the path coefficient was calculated. Results reports the items with the highest coefficient of effect and the lowest coefficient of effect.

The results of this study have different implications for managers in general and the managers of the consumers and producers protection organization in particular. The results of this study showed that increasing competitive intensity in the environment positively influences organizational capacity for change. The competitive intensity involves intense competition, high discounts and sale promotion in the market, the ability to imitate competitors, strong and daily competition. Based on this result, it is recommended that the managers of the consumers and producers protection organization constantly protect the core values of the organization, and have an inspirational outlook for the future. Also, they should be courageous to embrace change plans. In order to meet the organization's goals, they should show modesty to win the trust of employees and play a leadership role in the organization and increase the capacity for change while facing environmental turbulence.

It is recommended that managers of the consumers and producers protection organization show flexibility regarding change plans and give all employees the opportunity to express their ideas or criticize the issues. Managers should also turn environmental threats into opportunities, and increase organizational capacity for change. Conversion of threats to opportunities by organizational managers can be part of the organization's culture. In addition, all employees should be informed that environmental changes and turbulence can increase the organizational capacity for change. It is recommended that managers of the consumers and producers protection organization reconsider the idea of other units of the organization and challenge the organization's current status not to allow their organizations and staff remain static and enhance the permanence of the organization and its staff, and institutionalize creativity and innovation in the staff and in the organization. They should constantly update their personal skills and staff skills so that they can effectively deal with environmental turbulence and turn all environmental threats into opportunities. It is recommended that the managers of the consumers and producers protection organization hold a regular meeting with low-level employees to update them constantly about environmental changes. They should familiarize them with the environmental changes and encourage them to remain loyal to the organization and honor their commitment to carry out the organizational task optimally and establish a balance constantly between the change initiations and the organizational task. They should create a culture of constructive criticism in the organization so that employees can easily accept the constructive criticism of their executives and other employees and increase the organizational capacity for change.

It is recommended that the managers of the consumers and producers protection organization value innovation and change, and embrace environmental change and face turbulence. They should encourage and support creative people in the organization. In addition, they need to prioritize creativity while recruiting people. Also, they should create resources in an organization to challenge new ideas or implement them. They should develop the think tanks; hire intellectuals, and capable and experienced people to use their thoughts and experiences. All these can become the driving force behind these institutions to progress. Managers should give creative employees the chance to take risks or experience failures because the staff will be able to express their ideas more easily and will be courageous to present their innovative ideas. It is recommended that the managers of the consumers and producers protection organization encourage employees and managers who can make a decision quickly in turbulent environments and distinct them by giving merit badges to them. They should also introduce them to other employees of the organization in order to strengthen the sense of commitment among the employees. This way they can encourage their employees to take responsibilities for their duties. Employees should know that they are accountable for the tasks they have been assigned and they should do their best to have an optimal performance. It is recommended that the managers of the consumers and producers protection organization focus on the causes of turbulent conditions than the signs and always promote changes in the organization. They should institutionalize change in the organization and turn it into an organizational culture. It is recommended that the managers of the consumers and producers protection organization disseminate information from high to low-level employees, from customers to staff and among organizational units effectively at the right time. Improvement in the flow of information would help all be well prepared against turbulent conditions.

REFERENCES

- Ahmadian, S., Astrabeh, S., & Ejrami, M. (2023). Organizational silence, organizational trust, and organizational commitment: business. *Journal of humanities, social sciences and business*, 3(1), 112–124. <https://doi.org/10.55047/jhssb.v3i1.817>
- Barney, J., Wright, M., & Ketchen Jr, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of management*, 27(6), 625-641. <https://doi.org/10.1177/014920630102700>
- Bechky, B. A. (2003). Sharing meaning across occupational communities: The transformation of understanding on a production floor. *Organization science*, 14(3), 312-330. <https://doi.org/10.1287/orsc.14.3.312.15162>
- Bingham, C. B., & Eisenhardt, K. M. (2006, August). Unveiling How and What firms learn from heterogeneous experience: The internationalization of entrepreneurial firms. In *Academy of Management Proceedings* (Vol. 2006, No. 1, pp. C1-C6). Briarcliff Manor, NY 10510: Academy of Management. <https://doi.org/10.5465/ambpp.2006.27175549>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. <https://doi.org/10.1007/BF02310555>
- Cummings, T. G., & Worley, C. G. (2009). *Organisation development and change*, Mason, OH. South-Western Cengage Learning.

- Dahft, Richard L. Theory and Organization Design, Translation. Tehran: The Office of Cultural Research, 2001. <https://doi.org/10.1007/s12685-019-00236-1>
- Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative science quarterly*, 52-73. <https://doi.org/10.2307/2393080>
- Feldman, M. S., & Rafaeli, A. (2002). Organizational routines as sources of connections and understandings. *Journal of Management Studies*, 39(3), 309-331. <https://doi.org/10.1111/1467-6486.00294>
- Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic management journal*, 12(6), 433-448. <https://doi.org/10.1002/smj.4250120604>
- Hall, Alord. *Magical Sunshine*, Tehran: Novara Sina, / 2002, genes. *Science*, (5494)290, .1155-1151
- Hamad, Z. M. M. (2016). A structural equation model for analyzing the impact of environmental turbulence on non-financial performance. *Journal of Management and Strategy*, 7(2), 53-72.
- Haveman, H. A. (1993). Ghosts of managers past: Managerial succession and organizational mortality. *Academy of Management Journal*, 36(4), 864-881. <https://doi.org/10.5465/256762>
- Heckmann, N., Steger, T., & Dowling, M. (2016). Organizational capacity for change, change experience, and change project performance. *Journal of Business Research*, 69(2), 777-784. <https://doi.org/10.1016/j.jbusres.2015.07.012>
- Judge, W., & Douglas, T. (2009). Organizational change capacity: the systematic development of a scale. *Journal of Organizational Change Management*, 22(6), 635-649. <https://doi.org/10.1108/09534810910997041>
- Lawler, E., & Worley, C. G. (2006). Winning support for organizational change: Designing employee reward systems that keep on working. *Ivey Business Journal*, 70(4), 1-5.
- Meyer, C. B., & Stensaker, I. G. (2006). Developing capacity for change. *Journal of Change Management*, 6(2), 217-231. <https://doi.org/10.1080/14697010600693731>
- Meyer, M., & Heimerl-Wagner, P. (2000). Organisationale Veränderung: Transformationsreife und Umweltdruck. *BETRIEBSWIRTSCHAFT-STUTT GART-*, 60(2), 167-181.
- Mosleh Abdolmajid, & Yari Bazaniani Ahmadollah. The Effect of Organizational Intelligence on Technological Innovation in Knowledge Companies.
- Ringle, C. M., Sarstedt, M., & Straub, D. (2012). A critical look at the use of PLS-SEM in MIS Quarterly. *MIS Quarterly (MISQ)*, 36(1). <https://doi.org/10.2307/41410402>
- Shipton, B., & Coop, M. R. (2012). On the compression behaviour of reconstituted soils. *Soils and Foundations*, 52(4), 668-681. <https://doi.org/10.1016/j.sandf.2012.07.008>
- Waldersee, R., & Griffiths, A. (2004). Implementing change: matching implementation methods and change type. *Leadership & Organization Development Journal*, 25(5), 424-434. <https://doi.org/10.1108/01437730410544746>

Waldersee, R., Griffiths, A., & Lai, J. (2003). Predicting organizational change success: Matching organization type, change type and capabilities. *Journal of Applied Management and Entrepreneurship*, 8(1), 66.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).