

## Model Analysis of Effective Factors on the Implementation of Crisis Management Policies

Mehdi Torkian<sup>1</sup>, Karamollah Daneshfard<sup>2</sup>, Mashalah Valikhani<sup>3</sup>, Nazanin Pilevari<sup>4</sup>

Date of submission: 06 Jan. 2022

Date of acceptance: 01 May. 2022

### Original Article

#### Abstract

**INTRODUCTION:** Crisis management maintains security, stability, and flexibility in society by integrating different social resources with appropriate decisions and strengthening the ability of the community to recover from the negative impacts. Therefore, the present study aimed to conduct a model analysis of effective factors in implementing crisis management policies.

**METHODS:** The present study is a descriptive survey research with a mixed methods design. A total of 18 experts were non-randomly and purposefully selected for the qualitative section based on expertise and availability. In addition, 248 individuals were selected from managers and experts (658 people) of the National Disaster Management Organization of Iran and partner organizations for the quantitative section based on Krejcie and Morgan Table using Cochran's formula and simple random sampling. The research instrument was a researcher-made questionnaire including 33 factors affecting the implementation of crisis management policy, the content validity of which was confirmed by professors, and its reliability by Cronbach's alpha test ( $\alpha = 0.89$ ). Data were analyzed using SPSS-18 and AMOS software and the AHP method was used to prioritize the factors.

**FINDINGS:** Findings indicated that 33 components in the form of structural, organizational, environmental, and management factors, as well as financial and human resources, uniform practices, communication, information, and inter-organizational coordination, regulations, and policy implementers successfully affect the implementation of crisis management policies. Structural, organizational, and environmental factors significantly affect the implementation of policies.

**CONCLUSION:** Defining the responsibilities of partner organizations as well as developing transparency and designing specific goals contribute to the successful implementation of crisis management policies.

**Keywords:** Crisis Management; Organizational Factors; Policy.

**How to cite this article:** Torkian M, Daneshfard K, Valikhani M, Pilevari N. **Model Analysis of Effective Factors on the Implementation of Crisis Management Policies.** *Sci J Rescue Relief* 2022; 14(2): 86-96.

#### Introduction

Crisis management maintains security, stability, and flexibility in society by integrating different social resources with appropriate decisions and strengthening the ability of the community to recover from the negative impacts (1). As a result, modern societies establish emergency management (EM) systems to manage various disasters and their impact on

life and properties (2). Policymaking focuses on investigating the interaction of the government with the society in recognizing and understanding the issue as well as designing, implementing, evaluating, and modifying policies; therefore, it fails to immediately occur if no crises or unexpected events happen and is affected by a complex process and a variety of variables (3).

1- PhD Student, Department of Public Management, Faculty of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran

2- Associate Professor, Department of Public Management, Faculty of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran

3- Assistant Professor, Department of Public Management, South Branch, Islamic Azad University, Tehran, Iran

4- Associate Professor, Department of Industrial Management, West Tehran Branch, Islamic Azad University, Tehran, Iran

Correspondence to: Karamollah Daneshfard, Email: [daneshfard@srbiu.ac.ir](mailto:daneshfard@srbiu.ac.ir)

Research has been conducted in recent decades to indicate the importance of the issue, as Pula et al. (2017) stated that coordination is the leading point in crisis response operations. A general organizational structure is necessary due to the presence of several organizations in times of crisis (4). Shahkarami et al. (2021) defined establishing efficient coordination between organizations in disaster management, developing programs and clear frameworks of duties, structure, details of the organizational communication process, and determining the cooperation and corporation between organizations (5).

Modiri (2020) in analyzing the interaction between critical factors of success in crisis management indicated that organizational factors, technology and information systems, and human resources mostly affect operational factors to succeed in crisis management, and organizational factors improve the system. Wu et al. (2017) in another study identified the quality, manner of implementation, and the overall evaluation of policies (7). Skarica (2020) indicated identifying factors for the correct policy implementation and suggested the necessary prerequisites for modernizing public administration in the process of implementing the strategy for public administration development in Croatia (8). Kostka (2014) noted two general types of barriers to implementing local policies in China: The first type is institutional barriers, including environmental planning systems, economic and political incentives, public and private interests and participation, and political, technical, and financial resources and the other one is behavioral and socio-cultural barriers which includes personal preferences and interests, values, norms, and social pressures (9).

Laki (2018) also enumerated the barriers related to resources, including the planning for the proper allocation of human, financial, and temporal resources as well as structural barriers such as the instruction subsystem of all necessary structures and appropriate mechanisms for law enforcement as the most important shortcomings in formulating and implementing policymaking in Iranian organizations. Zidane and Anderson (2018) recognized poor planning, slow decision-making, internal bureaucracy, resource shortage, poor communication between groups, poor quality inspections, change in design and ordering, non-commitment of the project sponsor, administrative issues, delays, inappropriateness of the design,

and issues related to the implementers as factors which delay implementing policies of Norwegian electricity industry (10). Ahadzadeh et al. (2021) suggested six comprehensive subjects affecting the implementation of public policies in the Ministry of Energy including policy, target community, characteristics of executors, bureaucracy and administrative system as well as environmental factors and monitoring and evaluation, and discovered 17 effective factors in the framework of contingency theory which increases the success rate in the Ministry of Energy (11). Peykani et al. (2020) mentioned policy implementers, policymakers, target community, and nature of policy as well as environmental factors as the factors affecting the implementation of public customs policies. Also, they found that the factors related to implementing public policies are in the first place and those related to the nature of the policy in the second place (12).

Kazemi Nejad et al. (2019) established that the nature and method of compilation, policies, clear goals, theoretical foundations, political, economic, and social conditions, organizational structure, resources, characteristics and tendencies of implementers, cause-and-effect relationship, the multiplicity of executive institutions, communication and coordination of implementing institutions, implementation process, upstream regulations, macro-level political and executive support, stakeholders and technical difficulties of implementation are more effective in implementing energy policies in the oil and gas sector (13).

Today, the lives of millions of people around the world are affected by natural disasters which impose massive economic and social costs and prevent the progress of countries. In addition, Iran is exposed to various natural disasters such as earthquakes, floods, storms, and droughts due to its special geographical location (climatic geomorphology). Occurring hazards and subsequent crises lead to various consequences; therefore, different organizations should perform their duties under the set policies to create a coherent network to manage the crisis and bring it to normal. Following the establishment of the National Disaster Management Organization of Iran and approval of its law, related institutions are obliged to perform assigned specialized duties and respond to the organization. Therefore, identifying the factors which help managers

successfully implement the policies is essential to improve the performance of crisis management and set policies. Identifying the factors influencing the implementation of crisis management policies was strongly felt since some of them are hidden from the perspective of managers or little research has been done in this field. Therefore, the present study aimed to identify the factors affecting the successful implementation of crisis management policies and analyze them.

### Methods

The present study is descriptive survey research with a mixed methods design. The research data were collected in the form of documentary and online research, expert opinions (qualitative sample of the research), as well as a questionnaire method to identify the factors affecting the implementation of crisis management policies in Iran. In this study, first, the data were collected qualitatively and then quantitatively. According to Article 6 of the Crisis Management Law in Iran, members of the Supreme Council for Disaster Management include interior ministers, the Ministry of Defense, and Armed Forces Logistics, the Ministry of Roads and Urban Development, the Ministry of Health and Medical Education, Ministry of Energy, Ministry of Agriculture Jihad, Ministry of Intelligence, and heads of Plan and Budget Organization, Islamic Republic of Iran Broadcasting, Iranian Red Crescent Society, Basij, and the chief of General Staff of the Armed Forces of the Islamic Republic of Iran are within the scope of general policies communicated by the Supreme Leader (14).

The statistical population in the qualitative section included 18 experts familiar with crisis management policies which were no randomly and purposefully selected based on expertise, experience, theoretical mastery, accessibility, and willingness (7 experts from the National Disaster Management Organization of Iran, 6 experts from disaster management organizations of other provinces and 5 university professors specializing in crisis management). The statistical population

in the quantitative section included managers and experts of the National Disaster Management Organization of Iran ( $n=80$ ), managers and experts of disaster management organizations of other provinces ( $n=217$ ), and national and provincial managers of ten partner organizations and members of the Supreme Council for National Disaster Management Organization of Iran ( $n=361$ ) among which 248 individuals were selected as the sample based on Krejcie and Morgan Table and using Cochran's formula and simple random sampling. Table 1 presents the status of the population and the sample of research.

The research data were collected in the form of a library study, online research, questionnaires, and a qualitative sample survey. The research instrument was a 33-item researcher-made questionnaire on factors affecting implementing crisis management policies which were designed based on the literature review, and expert opinions using the Delphi method as follows:

First, 73 factors affecting the implementation of crisis management policies in Iran were identified by interviewing experts. Then the Delphi panel was formed and the summarized data were provided to the members. In the first stage, corrective feedback was given after analyzing the data, and, then the factors were reduced to 51 as minor or irrelevant ones were removed after summarizing the corrective feedback of the Delphi panel. Subsequently, the factors were edited after reviewing by the Delphi panel, and in the third stage similar items were unified and the factors were reduced to 39 and then to 33 factors in the form of 12 components. In the fourth stage, the factors were arranged and prioritized and the questionnaire was prepared and finally, the members reached a general agreement. Content validity was confirmed by 10 professors of public administration proficient in crisis management and the reliability of the questionnaire was confirmed using Cronbach's alpha calculation ( $\alpha=0.89$ ). Finally, SPSS-18 and AMOS, as well as LISREL were used for exploratory and confirmatory factor analysis and the identified factors were prioritized using the AHP technique.

**Table 1.** Population and the quantitative sample of research

Total	Partner Organizations of the Supreme Council for Crisis Management	Disaster Management Organizations of Other Provinces	National Disaster Management Organization of Iran	Population Sample
658	361 managers	217 managers and experts	80 managers and experts	
248	136	81	31	

## Findings

A total of 14 men (77.78%) and 4 women (22.22%) participated in the qualitative part of the study (experts) of whom 42.85%, 42.85%, and 14.3% had Ph.D., master's, and bachelor's degree, respectively. In addition, 92.85% of experts had

more and 7.15% had less than ten years of experience in crisis management. In conclusion, 33 factors affecting the implementation of crisis management policies were identified using the literature review, expert opinions, and the Delphi method. The results are listed in Table 2.

The exploratory factor analysis was used for

**Table 2.** Factors affecting the implementation of crisis management policies

Categories	Factors
Structural factors	Definition of the organizational structure of the National Disaster Management Organization of Iran
	Clarification of responsibilities of the officials of the National Disaster Management Organization of Iran and other partner organizations
	Procedures for performing a specific task in the National Disaster Management Organization of Iran and other partner organizations
Organizational factors	Believe in the unity of command
	No conflicting organizational goals in the National Disaster Management Organization of Iran and other partner organizations
	Clarification of the missions of the National Disaster Management Organization of Iran and other partner organizations
Management factors	Management or leadership style
	Short-term, medium-term, and long-term planning
Environmental factors	Social norms
	The economic situation of the region which is hit by a crisis
	Technical and specialized conditions in implementing policies
Human resources	Internal and external conditions
	Training of implementers
	The expertise of the implementers
Uniform practices	Number of employees, units, and organizations involved in implementing crisis management policies
	Uniform practices of implementing crisis management policies
	Uniform practices in similar and related activities
Financial resources	The amount of budget required by the National Disaster Management Organization of Iran and other partner organizations
	Participation of charities and individuals in implementing policies and mitigating the effects of the crisis
communication, information, and inter-organizational coordination	Common inter-organizational culture and norms
	Appropriate incentives to encourage the cooperation of organizations related to the National Disaster Management Organization of Iran
	Establishment of a comprehensive database
	Meetings for transferring the experiences of managers and experts
	Joint meetings of the National Disaster Management Organization of Iran and other related organizations
	Implementation of inter-organizational training
	Administrative policies governing inter-organizational cooperation
	Provide the necessary infrastructure for inter-organizational cooperation
	Alignment of management levels in the performance of continuous tasks
Regulations	Enforcement of regulations of the National Disaster Management Organization of Iran
	Legal requirements for inter-organizational cooperation
	Agreement between the National Disaster Management Organization of Iran and other partner organizations
Policy implementers	Determination of senior managers in implementing the crisis management policy
	Level of acceptance in middle and operational level implementers in implementing crisis management policy

**Table 3.** The output of SPSS software for the KMO test

KMO for Sampling Adequacy		0.72
	Chi-squared statistic	2718.375
	Degrees of freedom	718
	Significance level	0.000
Bartlett's Test		

**Table 4.** Identification of key factors by exploratory factor analysis

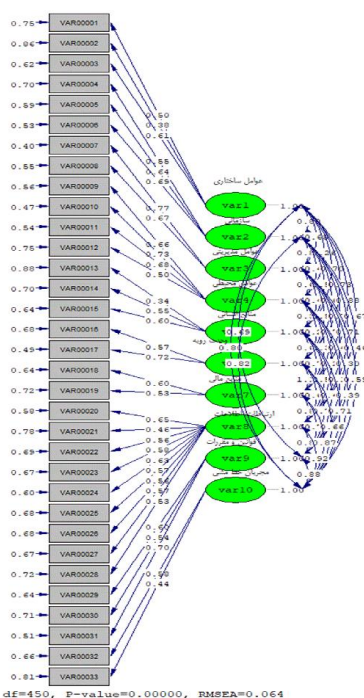
Extracted factors	Value Factor	Percentage of Variance Explained by Factor	Percentage of Total Variance Explained
Structural factors	11.328	10.280	10.280
Organizational factors	11.101	8.912	19.192
Environmental factors	10.392	8.867	28.059
Management	9.884	10.613	38.672
Financial resources	9.219	7.106	45.778
Human resources	7.313	8.021	64.061
Uniform practices	6.827	9.519	73.58
Communication, information, and inter-organizational coordination	6.227	7.156	45.988
Regulations	7.146	7.314	37.072
Policy implementers	8.022	6.847	43.778

clustering elements using SPSS software. Kaiser-Meyer-Olkin (KMO) Test for Sampling Adequacy was used to ensure that the sample size was sufficient for factor analysis before using the factor analysis method. The output of SPSS for KMO is listed in Table 3.

The sample size is suitable for factor analysis if the KMO value is more than 0.7. According to the results of Table 3, the KMO value is 0.72

which is in the acceptable range. The results of analyzing principal components before rotation in the output of SPSS software are listed in Table 4. Ten main factors were observed in the component matrix of the output of SPSS software.

Confirmatory factor analysis was used to investigate the validity scale of identified factors which had 10 hidden and 33 observed variables. Figure 1 presents the confirmatory factor analysis

**Figure 1.** Confirmatory factor analysis in the factor load mode (standardized coefficients)



of factors in the factor load mode (standardized coefficients).

Figure 1 presents whether the main research variables are correctly measured by sub-factors (indicators). The results reveal that the observed variables can well explain the hidden ones. A favorable relationship was observed between the indicators (observed variables) and their components (hidden variables) since the load factor of all observed variables (indices) is higher than 0.3 and has a significant role in measuring the components of research.

The results of factor analysis of the identified factors are presented in Figure 2. This scale contains 10 hidden and 33 observed variables. The observed load factor is slightly higher than 0.3 in all cases which indicates that the correlation between hidden variables (dimensions of each of the main structures) with observed ones is acceptable. A test of significance should be performed after the correlation of the variables is

identified. The significance of the relationship between the variables is evaluated using a t-value. The relationship is significant if the t-value is greater than the critical value of 1.96 since significance is checked at an error level of 0.05. The value of the t-value statistic is greater than 1.96 based on the results of the measurement indicators of each scale used at a confidence level of 5% which indicates that the observed correlations are significant.

Load factor indicates the effect of the observed variable in explaining and measuring the hidden variables. The significant level should be considered to confirm the load factor. In this study, the results are presented in Table 5.

In the final part of the study, the main and secondary factors affecting the implementation of crisis management policies were ranked using the MADM-AHP technique. The results of the main and sub-components are listed in Table 6.

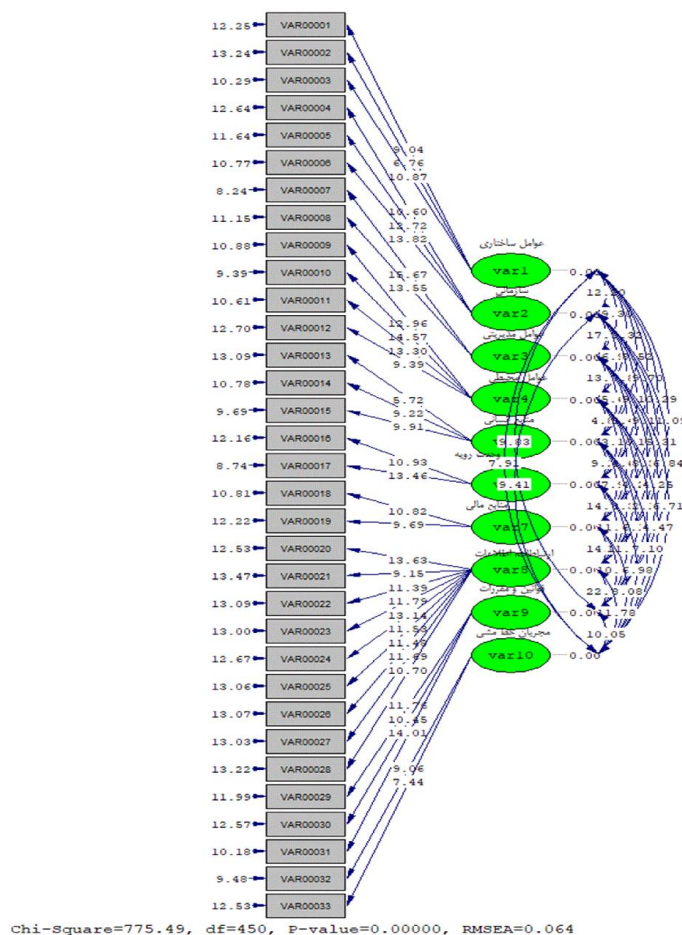


Figure 2. Confirmatory factor analysis in the case of significance coefficients (t-value)

**Table 5.** Investigation of load factor with significance level (0.000)

Categories	Factors	Load factor
Structural factors	Definition of the organizational structure of the National Disaster Management Organization of Iran	0.50
	Clarification of responsibilities of the officials of the National Disaster Management Organization of Iran and other partner organizations	0.38
	Procedures for performing a specific task in the National Disaster Management Organization of Iran and other partner organizations	0.61
Organizational factors	Believe in the unity of command	0.55
	No conflicting organizational goals in the National Disaster Management Organization of Iran and other partner organizations	0.64
	Clarification of the missions of the National Disaster Management Organization of Iran and other partner organizations	0.69
Management factors	Management or leadership style	0.77
	Short-term, medium-term, and long-term planning	0.67
Environmental factors	Social norms	0.66
	The economic situation of the region which is hit by a crisis	0.73
	Technical and specialized conditions in implementing policies	0.68
	Internal and external conditions	0.50
Human resources	Training of implementers	0.34
	The expertise of the implementers	0.55
	Number of employees, units, and organizations involved in implementing crisis management policies	0.60
Uniform practices	Uniform practices of implementing crisis management policies	0.57
	Uniform practices in similar and related activities	0.72
Financial resources	The amount of budget required by the National Disaster Management Organization of Iran and other partner organizations	0.60
	Participation of charities and individuals in implementing policies and mitigating the effects of the crisis	0.53
Communication, information, and inter-organizational coordination	Common inter-organizational culture and norms	0.65
	Appropriate incentives to encourage the cooperation of organizations related to the National Disaster Management Organization of Iran	0.46
	Establishment of a comprehensive database	0.56
	Meetings for transferring the experiences of managers and experts	0.58
	Joint meetings of the National Disaster Management Organization of Iran and other related organizations	0.63
	Implementation of joint inter-organizational training	0.57
	Administrative policies governing inter-organizational cooperation	0.56
	Provide the necessary infrastructure for inter-organizational cooperation	0.57
	Alignment of management levels in the performance of continuous tasks	0.53
Regulations	Enforcement of regulations of the National Disaster Management Organization of Iran	0.60
	Legal requirements for inter-organizational cooperation	0.54
	Agreement between the National Disaster Management Organization of Iran and other partner organizations	0.70
Policy implementers	Determination of senior managers in implementing the crisis management policy	0.58
	Level of acceptance in middle and operational level implementers in implementing crisis management policy	0.44

**Table 6.** Ranking of all indicators (main and sub-components based on MADM-AHP)

Factors	Weight of factors	Component	Standard weight	Final weight	Rank
Structural factors	0.332	Definition of the organizational structure of the National Disaster Management Organization of Iran	0.358	0.115	(2)
		Clarification of responsibilities of the officials of the National Disaster Management Organization of Iran and other partner organizations	0.330	0.106	(4)
		Procedures for performing a specific task in the National Disaster Management Organization of Iran and other partner organizations	0.312	0.100	(6)
Organizational factors	0.227	Believe in the unity of command	0.402	0.131	(1)
		No conflicting organizational goals in the National Disaster Management Organization of Iran and other partner organizations	0.315	0.103	(5)
		Clarification of the missions of the National Disaster Management Organization of Iran and other partner organizations	0.283	0.0925	(7)
Environmental factors	0.217	Social norms	0.498	0.108	(3)
		The economic situation of the region which is hit by a crisis	0.355	0.077	(9)
		Technical and specialized conditions in implementing policies	0.315	0.0683	(14)
Management factors	0.211	Internal and external conditions	0.295	0.0640	(16)
		Leadership and management style	0.361	0.0761	(10)
		Short-term, medium-term, and long-term planning	0.328	0.0711	(13)
Financial resources	0.207	The amount of budget required by the National Disaster Management Organization of Iran and other partner organizations	0.381	0.0788	(8)
		Participation of charities and individuals in implementing policies and mitigating the effects of the crisis	0.346	0.0716	(11)
		Training of implementers	0.382	0.0767	(9)
Human resources	0.201	The expertise of the implementers	0.355	0.0713	(12)
		Number of employees, units, and organizations involved in implementing crisis management policies	0.280	0.0562	(19)
		Uniform practices of implementing crisis management policies	0.347	0.0680	(15)
Uniform practices	0.196	Uniform practices in similar and related activities	0.290	0.0568	(18)
		Common inter-organizational culture and norms	0.376	0.052	(20)
		Appropriate incentives to encourage the cooperation of organizations related to the National Disaster Management Organization	0.357	0.05	(21)
Communication, information and interorganizational coordination	0.140	Establishment of a comprehensive database	0.267	0.037	(26)
		Meetings for transferring the experiences of managers and experts	0.261	0.0365	(27)
		Joint meetings of the National Disaster Management Organization and other related organizations	0.247	0.034	(28)
		Implementation of joint inter-organizational training	0.235	0.0329	(29)
		Administrative policies governing inter-organizational cooperation	0.232	0.0324	(30)
		Provide the necessary infrastructure for inter-organizational cooperation	0.228	0.0319	(31)
		Alignment of management levels in the performance of continuous tasks	0.224	0.0313	(32)
		Enforcement of regulations of the National Disaster Management Organization	0.376	0.044	(23)
		Legal requirements for inter-organizational cooperation	0.357	0.0424	(24)
Regulations	0.119	Agreement between the National Disaster Management Organization and other partner organizations	0.267	0.031	(33)
		Determination of senior managers in implementing the crisis management policy	0.410	0.0475	(22)
		Level of acceptance in middle and operational level implementers in implementing crisis management policy	0.357	0.041	(25)
Policy implementers	0.116				



According to the obtained result, structural factors with a weight of 0.322 were ranked first among the 10 main factors. Definition of the organizational structure of the National Disaster Management Organization of Iran from the structural factors, belief in the unity of command from organizational factors, social norms from environmental factors, leadership and management style from management factors, the amount of budget required in the National Disaster Management Organization of Iran and other partner organizations from financial resources, training of implementers from human resources, uniform practices of implementing crisis management policies from uniform practices, common inter-organizational culture and norms from communication, information, and inter-organizational coordination, enforcement of regulations of the National Disaster Management Organization from regulations and determination of senior managers in implementing the crisis management policy from policy implementers had the highest priority with a final weight of 0.115, 0.131, 0.108, 0.076, 0.076, 0.068, 0.052, 0.044, 0.0475, respectively.

### Discussion and conclusion

The present study aimed to identify and analyze the factors affecting the implementation of crisis management policies. Findings revealed that 33 factors in the form of 10 main factors of structural, organizational, environmental, management, financial and human resources, uniform practices, communication, information, and inter-organizational coordination, regulations, and policy implementers affect implementing crisis management policies. The findings of the present study are consistent with those of Modiri et al. (2020), Shahkarami et al. (2021), Kostka et al. (2014), Zidane and Anderson (2018), and Kazemi Nejad et al. (2019). Franklin (2011) argued that policy is usually a principle for guiding the decisions and achieving logical results which can be considered as a statement of intent (15). Successful implementation of crisis management policies improves performance and reduces the effects of disasters and crises. Identifying the factors affecting the implementation of crisis management policies reveal components and factors that are hidden from managers or less noticeable; therefore, managers with better accuracy and attitude benefit from the categories and factors identified in

implementing policies.

Based on the findings, structural, organizational, and environmental factors are the first to third priorities, respectively, among the main factors influencing the implementation of crisis management policies. The findings of this study are in line with those of Shahkarami et al. (2021), Modiri et al. (2020), and Kazemi Nejad et al. (2019). Laki (2018) also pointed out that structural barriers such as the instruction subsystem of all necessary structures and appropriate mechanisms for law enforcement are among the most important shortcomings of policymaking in Iranian organizations. Paula et al. (2017) stated in a study that a general organizational structure is necessary as various organizations function together in times of crisis to reduce the effects of the crisis and relieve pain and suffering. By increasing the number of partner organizations, effectiveness and efficiency will increase and the effects of the crisis will decrease if organizing is accurate and environmental conditions such as social norms, the economic situation of the regions hit by the crisis, and technical and professional conditions are considered in implementing policies.

According to the findings of the present study, defining the organizational structure, clarifying the responsibilities of the officials, and determining procedures for performing a specific task in the National Disaster Management Organization of Iran and other partner organizations were prioritized among other structural factors. Shahkarami et al. (2021) pointed to definite frameworks, duties, structure, details of the organizational communication and the way organizations cooperate and coordinate. Interference in activities is reduced and evaluation of the performance of partner organizations and different parts of the National Disaster Management Organization of Iran is facilitated and the gaps are better identified and corrected if a clear organizational structure and transparency in the duties of any organization or any part of the mentioned organization.

In this study, organizational factors are important after structural ones in implementing crisis management policy. Uniform practices of implementing crisis management policies, no conflicting organizational goals, and clarification of the missions of the National Disaster Management Organization and other partner organizations were prioritized among

organizational factors. Shahkarami et al. (2021) pointed to definite frameworks and the way organizations cooperate in crisis management. In addition, Kazemi Nejad et al. (2019) mentioned the clear goals and coordination of executive bodies in implementing the policy which is consistent with the findings of the present study. Organizing and goal setting, as well as defining the duties of each partner organization synergize and improve performance if the managers believe. Furthermore, all managers should be bound to the unity of command and avoid conflicting goals; otherwise, the effectiveness of reducing the pain and effects of the crisis diminishes. Social norms from environmental factors, management or leadership style from management factors, the amount of required budget from financial resources, training crisis management policy implementers from human resources, a common culture, and inter-organizational norms from communication, information, and inter-organizational coordination, the implementation of regulations of the National Disaster Management Organization from regulations and determination of senior managers in implementing the crisis management policy from policy implementers had the highest priority. The findings of this study are consistent with those of Modiri (2020), Shahkarami et al. (2021), Wu et al. (2017), Zidane and Anderson (2018), Peykani et al. (2020), and Kazemi Nejad et al. (2019). Being aware of social and environmental norms, the economic situation of the region affected by the crisis, and the technical and professional conditions of the organization in implementing policies improve crisis management by choosing the appropriate leadership style if a region is hit by crises such as floods, earthquakes, and fires. Additionally, financial and equipment resources play a key role in controlling crises. Since the facilities, equipment, and financial resources are limited and predetermined, estimating the needs and supply in the shortest possible time is necessary. From another point of view, managers should have a specific plan for factors such as developing specialized human resources and communications and interactions. Creating a comprehensive database of human resources, training specialists, and even public training are essential in crisis management.

Planning and forecasting for better management and continuous improvement of performance need serious attention as Iran is one

of the countries prone to various disasters. However, the National Disaster Management Organization of Iran has been established to control or reduce the effects of crises and devastating events. Several organizations and institutions are required by law to provide serious assistance. Implementing crisis management policies will be disrupted if no strong and coherent crisis management exists. In this regard, managers may be empirically aware of the factors affecting the correct and successful implementation of policies; however, accurate identification of factors may reveal some of those that were hidden from managers and give them new insights. Therefore, the National Disaster Management Organization of Iran needs to identify and analyze the factors affecting the implementation of policies to improve performing crisis management.

The findings of the study indicated that structural factors take priority in the ranking. Therefore, the necessary action is suggested to be taken to clarify the organizational structure and chart, determine the responsibilities and duties of partner organizations, as well as develop transparency to facilitate evaluating performance. Organizations that are legally involved in crises may be negligent and delegate their responsibilities to another organization due to the multiplicity. In addition, the findings of the study confirmed that organizational factors take priority. Therefore, the necessary action is suggested to be taken to formulate specific and unified goals to avoid conflicting goals and transparency in missions. Another finding is that training the crisis management policy implementers takes priority among human resources factors; therefore, necessary action should be taken to hold training workshops for experts and develop public awareness through the media and education considering its importance in controlling crises and reducing the damage.

### Acknowledgments

The authors would like to express their sincere gratitude to officials of the National Disaster Management Organization, managers of Disaster Management Organization in other provinces, partner organizations such as the Red Crescent Society, Ministry of Roads and Urban Development, and Law Enforcement as well as crisis management experts who collaborated in conducting the present study.

### Conflict of Interests

Authors declared no conflict of interests regarding the publication of the present study.

### References

1. Bolaji S. Intent to action: overcoming the barriers to universal basic education policy implementation in Nigeria. [PhD Thesis] Australia: Cowan University; 2014.
2. Ding XF, Liu HC. A 2-dimension uncertain linguistic DEMATEL method for identifying critical success factors in emergency management. *Appl Soft Comput*. 2018; 71: 386–395.
3. Daneshfard k. Public policymaking process. *Safar publication*. 2016; 19 [In Persian].
4. Paula AD, Leiras A, Lukosevicius A. Organizational Structure for Disaster Management Projects. *Conference WIT Trans Built Environ* 2017; 173: 33-42.
5. Shahkarami SH, Masoudi Asl I, Hesam S Identifying factors affecting coordination factors among disaster management organizations in earthquake-stricken areas of Kermanshah. *Disaster Prev Manag Know* 2021; 11 (2): 191-210 [In Persian].
6. Modiri M. Analysis of the interaction between critical factors of success in crisis management with a combination of fuzzy multi-criteria decision-making approaches. *J Emerg Manag* 2020; 9(2): 83-98. [In Persian].
7. Wu J, Zuidema C, Gugerell K, Roo G. Barriers and implementation deficiencies of energy policies at the local scale in urban China. *Energy Policy* 2017; 106: 201–11.
8. Škarica, M. Implementation of the strategy for public administration development in Croatia (2015-2020): A Mid-Term Evaluation. 2020.
9. Kostka, G. Barriers to the implementation of environmental policies at the local level in China. *Policy Research Working Paper, No. WPS*. Washington, DC: World Bank Group. 2014
10. Laki B. On the development of policies. *Research approaches in modern management and accounting*. 2018: 97-109. [In Persian].
11. Zidane JT, Andersen B. Causes of delay and their cures in major Norwegian projects. *J Mod Proj Manag* 2018: 81-91.
12. Ahadzadeh A, Sayyad Shirkosh S, Jamshidi Evanaki M. Identifying the factors affecting the implementation of public policies in the Ministry of Energy. *Public Policy*. 2021; 7(1): 79-96 [In Persian].
13. Peykani Mehraban A, Rashidpour A, Asadi M. Identifying the effective factors on the implementation of public policies of the customs of the Islamic Republic of Iran. *J Strateg Stud*. 2020; 5(17): 109-146 [In Persian].
14. Kazemi Nejad S, Alvani M, Jamshidi M. Designing a model for implementing energy policies in the oil and gas sector. *Q J Econ* 2019; 15(62): 37-68 [In Persian].
15. Crisis Management Law of the country, approved on 5/7/2019
16. Franklin KD. The Effects of Bureaucracy on Policy Implementation in the Public Sector, a Case Study of Ghana Audit Service, Ashanti Region. *Kwame Nkrumah University of Science and Technology*; 2011.