



A survey of the Correlation Crisis Management Council's performance in the latest earthquakes of Zohan (South Khorasan Province-2013)

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Abstract. Most of the earthquakes in Iran have occurred irreparable damages due to the incorrect management. In hand act in order to confront the earthquakes have not been useful so far. The newest accomplishment of earthquake management is to make the use of the Crisis Management Council's potential, so the main point of this survey is the Crisis Management Council's performance in the latest earthquakes of Zohan. The applied descriptive method has been used in this research. The model of Spillan&Hiugh (2003) is used in this research, in which the operations and the performance of crisis management related to the earthquake consist of five sections (the recognition of the crisis signs, the improvement and learning, the destruction restraint, the prevention, and the readiness). The society under the study including all the personnel and managers of South Khorasan who have been involved with the earthquake, and according to Cochran formula, the statistical volume consisted of 120 which has been standardized by random sampling and questionnaires in the government and the organizations of the South Khorasan. By the evaluation and surveying the research hypotheses which is consisted of one primary and five secondary hypotheses, the first, second, third and fifth were verified as the fourth was denied. For descriptive analyses, the charts and percentages, the average and the standard deviation and for the illative analysis, the Regression test and Pearson Correlation test were used. The software package of 16.0VerSPSS /pc has been also used. The results show that the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality in the recognition of the crisis signs, the improvement and learning, the destruction restraint, and the readiness. As for the prevention has not been favorable.

Keywords: organizational performance, earthquake, crisis management, readiness, prevention.

1. INTRODUCTION

1.1. Statement of the problem

Occurrence of the earthquake according to its spread and severity can remain a piteous situation full of anxiety along with a cooperation sense in the society as it annihilate the products created by years of effort. Most people try to help the injuries and by pursuing the related news, evaluate the responsible and they are in fond of useful functions to solve the injuries' problems. Maybe in not any other phenomenon, the efficiency of system is evaluated like this. This situation can make it possible for the defiant and adverse to justify the public thoughts of the existing system deficiency by the weakness grandiosity in order to gain their political goals. Therefore, the fast presence in the natural phenomena especially earthquake seems a necessity of each government and it is more expected from those governments which are more involved with this phenomenon. As the result a concept named the " crisis management" has been created and is used as a key concept, and whenever it is talked about the natural crisis problem solving, without any doubts, most people name it as the final solution. The main task of crisis management is the resource mobilization and their guidance to reply to the crisis needs in which a widespread use of civic and martial organizations according to the crisis level is used. Anyway, the main resource in our country to confront the huge phenomena is the Coordination Council of the Crisis Management. Our country is capable of natural phenomena and ca be regarded as one of the ten disposed countries. The Zohan's earthquake may seem not that much

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catastrophic and as it is announced, it has been finished in thirteen hours. But it seems an advantageous chance to evaluate the performance of the Coordination Council of the Crisis Management and by analysis make a pattern for bigger phenomena. The question can be raised that according to the valuable experience of this crisis, what has been done by each organization, especially the province Coordination Council of the Crisis Management, and what challenges they have been confronted. And can a more real framework being provided by the use of the applied model in order to utilize the council's potential in the similar situations?

2. FRAMEWORK OF THE RESEARCH

Earthquake: the quakes which are created by the release of the potential energies of the earth's beneath layers.

Management:

Effective application of human and material resources in order to gain the organization's goals.

It is a position based on the maxims of thought and value in order to undertake the organization's management based on its goals by mobilization of the spiritual and materialistic resources.

Crisis:

A phenomenon capable or potentially capable to affect the whole organization.

A situation which disorder the total function of the organization and take down its consistency.

Crisis can be defined as a phenomenon of extraordinary situation which will unbalance the country it is occurred in.

Crisis is a sudden change more serious than before, surprising and minatory which is created naturally of purposely and impose such difficulties to the society that the compulsive, cardinal and extraordinary actions are needed in order to remove them.

2.1. Purpose of the research

The purpose of this research includes:

Recognition of the actions of the Crisis Management Council in Zohan earthquake and determination of this council's problems in order to take the advantage of this experience in the similar phenomena.

2.2. Research question

Has the performance of the Crisis Management Council been successful in the Zohan's earthquake?

2.3. Research hypothesis

2.3.1. The main hypothesis

The performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality.

2.3.2. Secondary hypotheses

From the viewpoint of the readiness, the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

From the viewpoint of the prevention,the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

From the viewpoint of the destruction restraint,the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

From the viewpoint of the improvement and learning,the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

From the viewpoint of the recognition of the crisis signs,the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

3. METHODOLOGY OF THE RESEARCH

3.1. Methodology

The present study is applicable from the viewpoint of purpose, considering the data gathering, it is descriptive and it is pragmatic according to the relationship between the variants. The methodology is surveying and in order to data gathering, library studies, interviews and questioners, and document studies have been used.

3.2. Data gathering

Among different ways of data gathering, library studies, interviews and questioners, and document studies have been used in the present research.

Public questions: this section including 4 questions which are about the personnel population.

Specialized questions: this section includes the main part of the research which asks for the experts’ opinions by 25 questions according to Likert Scale.

Table 1. Likert Scale

Selected switch	Absolutely wrong	Not correct	Somehow correct	correct	Absolutely correct
Score	1	2	3	4	5

3.3. The narrative and persistency of the research:

The research narrative:

Since the main way of data gathering and variant measurement of this research is by the questioners, the narrative of the research seems very important. In order to increase the narrative quality of the present research, below actions have been done: widespread library studies have been done to clear the main concepts and variants of the research and the state of their measurement and to help us design suitable questions for the hypotheses. The designed question are then has been put under the scrutiny of guiding professors and advisors to be confirmed. Finally the research narrative was verified by crisis related experts.

The research persistency:

The questionnaire alpha is 84%, which is acceptable and shows the persistency of the research.

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3.4. Statistical society

The statistical society including all the experts and managers of the crisis management organization headquarters of the south Khorasan province, systems of the coordination council, Haji Abad government, and Zohan's sheriff Dom which are about 178.

The Sampling of this research is according to Cochran. According to the formula, the statistic volume included 121 people and the questionnaires distributed among them by the stage method.

In order to examine the statistical volume, the Cochran Method is used, and the sample volume has been measured by the certainty level of 95% ($\alpha= 0/05$). The amount of Z or t in the Cochran Formula is considered 1/96 by the certainty level of 95%. The amount of d has been considered 0/2 or 0/20 or less to make the test potency not less than 80% and here d is considered 0/05 here. The amount of p and q has been considered 0/5 in order to measure the maximum sample volume. Statistical sampling of the personnel according to the ... formula is calculated as below:

$$n = \frac{Nt^2 pq}{Nd^2 + t^2 pq} = \frac{178(1/96)^2 (0/5)(0/5)}{178(0/05)^2 + (1/96)^2 (0/5)(0/5)} = 121$$

3.5. Data analysis method

The Pearson Correlation Coefficient has been used in this research to test the hypotheses and multiple regression.

Hypothesis 1. From the viewpoint of readiness, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality.

The above hypothesis was verified according to Pearson Correlation Coefficient test. According to the meaningful level which is 0.32, the correlation between the readiness and the performance of the Coordination Council is 0.328. As the result the performance of the Coordination Council of the Crisis Management in the Zohan's earthquake has been desirable from the viewpoint of readiness. It means that by the increase of readiness, the correlation council performance increases too.

Table 2. Descriptive statistics (the performance of the Crisis Management Council in the Zohan's earthquake from the viewpoint of readiness).

Variant index	Number	Average	Standard deviation
The performance of the Crisis Management Council	120	52.06	7.14
Readiness	120	69.36	14.2

Table 3. Pearson Correlation Coefficient of the performance of the Crisis Management Council.

The performance of the Crisis Management Council	Variant
0.328**	Readiness

*= p<0/05
**= p<0/01

As it is observed in the above chart and according to the calculated correlation factor ($r= 32/0$, $p< 01/0$), the zero hypothesis is denied and the contrary hypothesis is verified, and we can conclude with 99% that the performance of the Coordination Council of the Crisis Management in the Zohan's earthquake has been desirable from the viewpoint of readiness.

According to the Pearson Correlation Coefficient, the results show a positive and meaningful correlation between the performances of Coordination Council of the Crisis Management and readiness. It means that there is a great and positive correlation in the performance of the Coordination Council of the Crisis Management in the Zohan’s earthquake from the viewpoint of readiness.

Hypothesis 2: From the viewpoint of prevention, the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

Table 4. Descriptive statistics (the performance of the Crisis Management Council in the Zohan’s earthquake from the viewpoint of prevention).

Variant index	Number	Average	Standard deviation
The Performance of the Crisis Management Council	120	20.94	3.46
Readiness	120	69.36	14.02

Table 5. Pearson Correlation Coefficient of the performance of the Crisis Management Council.

The Performance of the Crisis Management Council	Variant
0.002 **	Readiness

*= p<0/05
 **= p<0/01

As it is observed in the above chart and according to the calculated correlation factor ($r= 0/002$, $p< 01/0$), the zero hypothesis is verified and the contrary hypothesis is denied, and by a 99% certainty we can conclude that, the performance of the Crisis Management Council in the Zohan’s earthquake from the viewpoint of prevention has not been favorable.

According to the Pearson Correlation Coefficient test, the results show that there is not a positive and meaningful correlation between the performances of Coordination Council of the Crisis Management and the prevention. It means that some actions should be done before the earthquake in order to decrease the irrecoverable damages to the society and these actions are brought in the results and suggestions. Therefore, the performance of the Crisis Management Council in the Zohan’s earthquake from the viewpoint of prevention has not been favorable.

Hypothesis 3: From the viewpoint of destruction restraint, the performance of the Crisis Management Council in the Zohan’s earthquake has had a favorable quality.

Table 6. Descriptive statistics (the performance of the Crisis Management Council in the Zohan’s earthquake from the viewpoint of destruction restraint).

Variant index	Number	Average	Standard deviation
The performance of the Crisis Management Council	120	18.68	3.27
Readiness	120	69.36	14.02

Table 7. Pearson Correlation Coefficient of the performance of the Crisis Management Council

The Performance of the Crisis Management Council	Variant
0.206 **	Readiness

*= p<0/05
 **= p<0/01

As it is observed in the above chart and according to the calculated correlation factor ($r= 0/20$, $p< 01/0$), the zero hypothesis is denied and the contrary hypothesis is verified, and by a 99% certainty we can conclude that, the performance of the Crisis Management Council in the Zohan’s earthquake from the viewpoint of destruction restraint has been favorable.

According to the Pearson Correlation Coefficient, the results show a positive and meaningful correlation between the performances of Coordination Council of the Crisis Management and

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destruction restraint. It means that by the increase in the accuracy of destruction restraint, the performance of the council also increases. Therefore the performance of the Coordination Council of the Crisis Management in the Zohan's earthquake has been desirable from the viewpoint of destruction restraint.

Hypothesis 4: From the viewpoint of improvement and learning, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality.

Table 8: descriptive statistics (the performance of the Crisis Management Council in the Zohan's earthquake from the viewpoint of the improvement and learning)

Variant index	Number	average	Standard deviation
The performance of the Crisis Management Council	120	18.68	3.27
Readiness	120	69.36	14.02

Table 9: Pearson Correlation Coefficient of the performance of the Crisis Management Council

The performance of the Crisis Management Council	Variant
0.284 **	Readiness

*= p<0/05
**= p<0/01

As it is observed in the above chart and according to the calculated correlation factor ($r= 0/20$, $p< 01/0$), the zero hypothesis is denied and the contrary hypothesis is verified, and by a 99% certainty we can conclude that, the performance of the Crisis Management Council in the Zohan's earthquake from the viewpoint of improvement and learning has been favorable.

According to the Pearson Correlation Coefficient, the results show a positive and meaningful correlation between the performances of Coordination Council of the Crisis Management and the improvement and learning. It means that by the increase in the accuracy of the improvement and learning, the performance of the council also increases. Therefore the performance of the Coordination Council of the Crisis Management in the Zohan's earthquake has been desirable from the viewpoint of the improvement and learning.

Hypothesis 5: From the viewpoint of the recognition of the crisis signs, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality.

Table 10. descriptive statistics (the performance of the Crisis Management Council in the Zohan's earthquake from the viewpoint of the recognition of the crisis signs)

Variant index	Number	Average	Standard deviation
The Performance of the Crisis Management Council	120	18.68	3.27
Readiness	120	69.36	14.02

Table 11: Pearson Correlation Coefficient of the performance of the Crisis Management Council

The performance of the Crisis Management Council	Variant
0.296 **	Readiness

*= p<0/05
**= p<0/01

As it is observed in the above chart and according to the calculated correlation factor ($r= 0/29$, $p< 01/0$), the zero hypothesis is denied and the contrary hypothesis is verified, and by a 99% certainty we can conclude that, the performance of the Crisis Management Council in the Zohan's earthquake from the viewpoint of the recognition of the crisis signs has been favorable.

According to the Pearson Correlation Coefficient, the results show a positive and meaningful correlation between the performances of Coordination Council of the Crisis Management and the recognition of the crisis signs. It means that by the increase in the accuracy of the recognition of the crisis signs, the performance of the council also increases. Therefore the performance of the Coordination Council of the Crisis Management in the Zohan's earthquake from the viewpoint of the recognition of the crisis signs has been favorable.

The results of the research hypotheses study:

The first secondary hypothesis of the research stating that the performance of the Coordination Council of the Crisis Management in the Zohan's earthquake from the viewpoint of the readiness has been favorable, has been verified according to the Pearson Correlation Coefficient test. In action also regarding that the Search and rescue actions have been completed in the first thirteen hours after the earthquake, the high readiness and the successful performance of the province's Coordination Council of the Crisis Management in helping the victims of the earthquakes is shown.

As the result, we can say that the Coordination Council of the Crisis Management of the South Khorasan government is favorable from the readiness viewpoint.

The second secondary hypothesis of the research stating that from the viewpoint of prevention, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality, has not been verified according to the Pearson Correlation Coefficient test. The existed operative clues in the place, regarding that the most peasant's houses were made of bat and brick and it has made a huge harm and damage (in 45 earthquake victim villages, 193 units more than 80%, 583 units about 60% and 1336 units about 30% were damaged) show that the coordination council and the sub-systems could have prevented the imposed damages by house resistances and by building according to the national construction maxims. As the result, it can be stated that: the performance of the Crisis Management Council in the Zohan's earthquake has not had a favorable quality regarding the prevention.

The third secondary hypothesis stating from the viewpoint of destruction restraint, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality, has been favorable, and verified according to the Pearson Correlation Coefficient test. In action also regarding that the search and rescue actions and the repairmen of the Water supply and electrification of the district have been done in thirteen hours, it can be justified that the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality has been favorable according to the destruction restraint.

The fourth secondary hypothesis of the research stating From the viewpoint of improvement and learning, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality has been favorable, has been verified according to the Pearson Correlation Coefficient test. According to the existed clues the readiness and the ability situation of the administrative systems and the province's coordination council in comparison to the previous crises (earthquakes of 1376 and 1386 and the famine crisis) have improved and this council is improving its potency by the help of its previous experiences and different learning courses. As the result it is stated that the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality has been favorable according to the improvement and learning.

The fifth hypothesis stating that from the viewpoint of the recognition of the crisis signs, the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality, has been verified according to the Pearson Correlation Coefficient test. Although this hypothesis is more accurate in the economic and social crises, in this situation the level and the sort of damage is approximately estimated and the management decisions are taken then

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because of the existence of one expert who was completely familiar to the potency of the district towards the earthquake. As the result it is concluded that the performance of the Crisis Management Council in the Zohan's earthquake has had a favorable quality according to the recognition of the crisis signs.

4. THE RESULTS

More serious attention towards the public and religious learnings and the changes of their attitude towards determinism should be done in order to increase the consistency and resistance of the rural and civil constructions and also to prevent the huge damages and decrease the injuries of the earthquake.

Cardinal attention to the structure of the Coordination Council the acceptance of its coordinating functions by the organizations which are related to the earthquake crisis management that will be done by the ministry and central organizations' proclamation to the subset organizations.

Choosing and primary learning of a person or a group of people as the key communicators to the Coordinating Council- empowering the connectors of the Coordination Council and also the managers by the improvement of crises management learnings which can be regarded as one of the important factors to increase the knowledge level of the managers and the experts.

More investments to improve the psychological problems of the earthquake victims especially the children by the existed potential in the organizations like welfare and health department and by constructing temporary kindergartens and psychological sanitary stations along with the earthquake victims sheltering.

5. SUGGESTIONS

For the case of readiness, it is suggested to make the use of local expert personnel equipped to the related crisis management learnings.

For the case of prevention, it is suggested to improve the cultural, social and religious learnings to change the false determinative attitudes.

For the case of destruction restraint, it is suggested to provide the independent facilities for the council and to create the sufficient control on the credit expensing.

For the case of improvement and learning, it is suggested to provide the sufficient facilities in order to the documentation of the successful experiences.

For the case of the recognition of the crisis signs, it is suggested to make the use of local and able people in the crisis management posts.

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