CRISIS MANAGEMENT STRATEGIES: AN EXPLORATORY STUDY OF THE OPINIONS OF A SAMPLE OF ADMINISTRATIVE LEADERS WORKING IN THE RESEARCH CENTERS AFFILIATED WITH THE UNIVERSITY OF MOSUL

Dr. Reem Saad Aljameel
Lecturer / Department of Business Administration / University of Mosul
reem_Saad@uomosul.edu.iq

Abstract

The research aims to identify the extent to which crisis management strategies are applied in the research centers of Mosul University. To achieve this, the researcher used the descriptive approach and the analytical approach based on testing statistical hypotheses. The questionnaire was relied upon as a main tool for collecting research data, as (70) questionnaires were randomly distributed to the targeted managers, their deputies, and the heads of departments and units in the research centers affiliated with Mosul University, and the number of retrieved and valid forms for analysis was (52) questionnaires. The research was based on a main hypothesis that there is a statistically significant relationship between the crisis management strategies at the research centers affiliated with the University of Mosul. Through the use of the statistical analysis program (SPSS-26), it was concluded that although there is an application of the crisis management strategies (strategic vision, the strategic axis, the organizational axis, and the organizational culture), it was found that the application of the axis of the strategic vision does not lead to the application of both the organizational axis and the organizational culture axis, just as the relationship between the strategic vision axis and the strategic axis was weak, and thus there will be no integrated application of crisis management strategies to deal with crises when they occur. Accordingly, the research recommended the need for the research centers of the Mosul University to establish a specialized department for crisis management that uses modern strategies for crises.

Keywords: Crisis management, Strategic vision, Organizational culture.

Introduction

Crises have become part of the fabric of human life and a feature of contemporary life, so that no day passes without repeating the word crisis in front of us, as the term crisis has become one of the terms used at all levels and at various social levels.

First: The concept of crisis management strategies

It is the process that senior management resorts to when an organization is exposed to a specific crisis, through the optimal selection of the appropriate strategy for the type and nature

of the crisis (Al-Serafi, 2008: 18). It also means how to overcome crises with various scientific and administrative tools and avoid their negatives and benefit from their positives, as the science of crisis management is the science of management Balances, monitoring the movement and managements of power, adapting to different variables, and examining their effects in all fields (Muhanna, 2008: 20). It is a specific technique or method used when facing emergency situations, dealing with crises that must be faced, and planning for the method of response early based on information-based assumptions that predict the occurrence of such crises (Fatish, 2009: 25). and for crisis management It is an innovative interactive approach that depends on individual creativity and collective creativity because it is based on the thought of the systemic approach to management, and this approach is based on a general, comprehensive and integrated description of the crisis that addresses it from all sides and all its variables and constants to give decision-makers all data, information and knowledge related to the crisis and its environment, which works to determine the appropriate decisions to deal with this crisis efficiently, effectively and with a high degree of success (Al-Sakarneh, 2022, 163-129).

Second: Elements of crisis management strategies

The researchers classified a set of elements or characteristics that represent the infrastructure and crisis management strategies in any organization into three elements: (Misk, 2011: 35) (El-Baz, 2002: 24) (Al-Khudairi, 2003: 30) (Al-Azzam, 2004: 37)

1- Strategic elements: It is necessary to deal with crises strategically, and this needs several actions in the organization, including

- Linking and integrating crisis management with the strategic planning process in the organization.
- Holding internal and external training programs on the subject of crisis management.
- Ensure that there is a diversity of crisis management strategies.

2- Organizational elements: This indicates the organization's ability to find the appropriate organizational structure to ensure the effectiveness of crisis management through

- Forming a specialized team for crisis management.
- Allocate a special budget for crisis management.
- Ensure the readiness of technology and machinery in the organization.
- Establish working relationships with external parties specialized in crisis management.

3- Elements of organizational culture include the following activities:

- Conduct periodic financial and legal audits within the organization.
- Assess the impact of the surrounding environment on the organization.
- Implement an early warning system for errors within the organization.

Third: Strategies to confront crises

Crisis response strategies depend on the personal capabilities of the confrontation team, the circumstances surrounding the crisis, and the available capabilities, and one of the strategies can be chosen to be followed throughout the confrontation process, but the strategy can be changed according to the stages of crisis development and these strategies (Bieber, 1998: 41)

(Al-Zahir, 2009: 35) (Al-Khudairi, 2003: 298) (Al-Serafi, 2008: 101) (Abbas, 2007: 201) (Gilpin & Murphy, 2010: 86):

1- Violent dealing with the crisis: in which unknown crises that are not sufficiently known are dealt with, as well as crises related to principles, in addition to adopting them in the event of the complexity of the crisis and its spread in several managements, and within the framework of this strategy, several steps are implemented, including

- The internal destruction of the crisis: Here its components are destroyed and the thinking of its drivers is influenced, and an internal conflict is sought between the forces causing the crisis, and some of them are attempted.

- The external destruction of the crisis: It is the severe siege of the forces causing it with the gathering of external forces that oppose it and the attempt to involve them in the framework of the crisis in an effort to destroy its components.

2- Limiting the growth of the crisis: In this strategy, it accepts the fait accompli and prevents the deterioration of the situation.

- Dealing accurately with the driving forces of the crisis and what is causing it.

- Some of the requirements of the forces causing the crisis are met by direct negotiation and some limited concessions.

- Help mitigate the crisis through advice and guidance.

- Provide assistance and support to forces opposed to the crisis.

3- Division of the crisis: In this strategy, the focus is on assessing the situation accurately and the analytical study of the components of the crisis, the forces affecting it, and the correlation between them, and it is adopted in large crises with a high impact, as the crisis is divided into several crises that are easy to deal with, and its tactics include:

- Creating a kind of conflict of interest between the components of the crisis.

- Revealing some gains on some of the forces causing the crisis, which helps the collapse of existing alliances.

4- The negative impact of the thinking driving the crisis: In this strategy , the values and trends that have a strong impact on the strength of the crisis are weakened, and several steps are followed, including:

- Questioning the principles and values of the driving forces of the crisis.

- Trying to attract some forces that are weakly linked to the ideology of the crisis.

- Seeking imaginary solidarity with the ideology that drives the crisis to cause internal division.

5- Pushing the crisis to an advanced stage: This strategy aims to push the driving forces of the crisis to enter an advanced stage , during which the internal conflict between the formations appears heterogeneous to the forces causing them, represented in pretending to be weak in the crisis.

6- Changing the management of the crisis: In this strategy, severe crises and violence with a devastating impact are dealt with, and its steps are

- Step away from the crisis and allow it to emerge.

- Moving with the crisis, especially with its effective basic management .

- Work to reduce the speed of the crisis rush.

Fourth: Research Methodology

1- Research problem: Research centers today are containers and repositories for thinking and opinion that are referred to by researchers to benefit from the research and studies they provide, and the University of Mosul attaches importance to its research centers, so it has established a number of them with different specializations. The problem of this research is to raise questions about the reality of crisis management at the research centers of the University of Mosul and the availability of basic elements for crisis management strategies from the point of view of the administrative leaders working for them.

2- The importance of research: The importance of this research stems from highlighting the importance of research centers affiliated to the University of Mosul, the importance of this procedure to carry out such a topic is to ensure their continuity and development, as this research contributes to raising such a topic, which is one of the modern and important topics in the administrative fields, in addition to helping the departments of these research centers to identify the elements of management strategies Crises and how to deal with them effectively and try to benefit from them in achieving more progress and prosperity, while opening new horizons for more future research on this topic in multiple other fields.

3- Research Objectives: In this research, the availability of a crisis management system at the research centers of the University of Mosul is identified, with the extent to which crisis management strategies are applied to deal with crises in order to obtain the most important conclusions and submit proposals.

4- Research hypothesis: The research is based on the main hypothesis that there is a statistically significant relationship between the axes of crisis management strategies to deal with crises.

5- Research Limits: Spatial boundaries in a number of research centers affiliated with the University of Mosul, where the research was conducted in five research centers affiliated with the University of Mosul: Regional Research Center, Mosul Studies Center, Remote Sensing Center, Research and Dams Center, and Environmental Research Center.

Time limits, which is the current research procedure for the period 2022-2023.

Human Limits, administrative leaders were selected, namely directors of research centers affiliated with the University of Mosul, heads of departments, heads of divisions, and administrative assistants.

Objective limits, the reality of elements of crisis management strategies in some of the research centers operating at the University of Mosul.

Fifth: Field (applied) framework for research

1. Hypothetical scheme of research

The hypothetical scheme of a search is a logical hypothetical relationship between two or more variables or axes of research; it represents the guide about what things are measured and the nature of the statistical relationships to be measured. With regard to the subject of the

research, we find that it can be noted that there are four main axes that represent the measures for crisis management strategies: the strategic vision axis, the strategic axis, the organizational axis, and the organizational culture axis. Depending on the research hypothesis, the hypothesis schema of the research can be expressed as follows:

Figure 1: Hypothesis scheme of research
Source: Designed by the researcher

2. Research tool
The research tool was represented by the questionnaire that was designed with reference to the theoretical framework and previous studies related to the research topic. The questionnaire consists of two main parts:

The first part represents the demographic characteristics of the respondents, including gender, age, academic achievement, length of service in the current position, total length of service, and research center.

The second part represents the four axes of crisis strategies, namely, the strategic vision axis, which consists of (11) paragraphs; the strategic axis, which consists of (4) paragraphs; the organizational axis, which consists of (5) paragraphs; and the organizational culture axis, which consists of (4) paragraphs.

The five-point Likert scale (strongly agree, agree, somewhat agree, disagree, strongly disagree) was used in the design of the research questionnaire, and in line with the statistical analysis of the respondents' answers, a score (5) was given as a weight for each answer "strongly agree," a score (4) as a weight for each answer "I agree," a score (3) as a weight for each answer "I agree to some extent," a score (2) as a weight for each answer "I do not agree," and a score (1) as a weight for each answer "strongly disagree." In order to determine the level

of application of crisis strategies management in the research centers of the University of Mosul according to the respondents' opinions, the answers were classified based on the arithmetic mean into five levels, where the corresponding categories of these levels were found as follows:

Range = Greatest Answer Value – Lowest Answer Value = 5 – 1 = 4

Class length = range \ number of classes = 4 \ 5 = 0.8

In light of this, the general trend of the respondents' answers will be interpreted according to the table below:

Table 1: Levels of application of the business management strategy from the respondents' point of view

Level of implementation of the crisis management strategy	General management	Average
Not applicable	Strongly disagree	1.80 - 1.00
low	I don't agree	2.60 – 1.81
Mild	I agree to some extent	3.40 – 2.61
High	I agree	4.20 – 3.41
Very high	I strongly agree	5.00 – 4.21

Source: Prepared by the researcher

3. Research population and sample

The research community consists of all directors and heads of departments and units in the research centers of the University of Mosul, while the research sample was randomly selected, where the questionnaire was distributed to (70) members of the targeted research community, and it was found that there are (52) questionnaire forms valid for analysis, or (74%) of the total questionnaires distributed, while there are (18) questionnaire forms that include incomplete answers It does not meet the intended purpose and has therefore been excluded.

4. Statistical methods used in research

The following statistical methods and treatments were used:

1-   Cronbach-alpha stability coefficient (α-Cronbach)

2-   Weighted mean

3-   Standard deviation

4-   Spearman correlation coefficient

To obtain results as accurate as possible, the 26th edition of SPSS statistical software was used.

5. Stability and truthfulness of the research tool

Tool stability:

The stability of the tool is defined as the degree of compatibility in the respondents' answers when repeating the application of the test or an equivalent image of it on the same group. The

stability coefficient takes a value between (0) and (1). If the value of the stability coefficient is high, this is a good indicator of the stability of the questionnaire and thus the validity and suitability of the questionnaire for research purposes. In the field of humanities and social sciences, the stability coefficient is acceptable starting from 0.60. To check the stability of the search instrument, the Cronbach's alpha (α-Cronbach) stability coefficient will be calculated.

Statistical honesty:

 The honesty coefficient is an indicator of the internal consistency (consistency) of the questionnaire paragraphs; statistically, it represents the square root of the stability coefficient. The following table shows the coefficients of stability and truthfulness for all axes of the questionnaire and for the whole questionnaire.

Table 2: Reliability and reliability of the search tool

axiss	Honesty coefficient	Coefficient of stability	Number of ferries
Strategic Vision	0.78	0.61	11
Strategic axis	0.79	0.63	4
Organizational Axis	0.87	0.76	5
Organizational Culture	0.84	0.71	4
Questionnaire	0.77	0.60	24

Source: Programme results SPSS-26

It can be seen from Table (2) that the stability coefficients exceeded (0.60), and the coefficients of honesty exceeded (0.75), and depending on the scale mentioned by both George and Mallery, it can be said that the research tool has a high level of stability and honesty, which makes the respondents' answers to the questionnaire credible and therefore reliable or reliant upon the results of the research (George & Mallery, 2003: 121).

6. Demographic characteristics of the respondents in the research sample:

Table (3) shows the number and percentages of respondents according to their demographic characteristics. The table shows that the majority of respondents in the study sample are males (73.1%) of the total sample), while the percentage of females in the sample was (26.9%). The table also shows that the prevailing age of the respondents in the study sample is (40-49) years, where the percentage of respondents according to this age group (53.8%) of the total sample, and (28.8%) of the respondents age falls within the category (50 years and over), while there is a percentage (17.3%) of the respondents aged (less than 40 years). The study sample included (65.4%) of the respondents with academic achievement "PhD", and (34.6%) of those with academic achievement "Master's". As for the duration of service of the respondents in their current positions, we find that there is a convergence in the percentage of respondents according to their years of service, (30.8%) of them have between (1-4) years of service in their current positions, (32.7%) have between (5-9) years of service in their current positions, and (36.5%) have (10) years of service or more in their current positions. With regard to the total length of service in years, it was found that the majority of them have a

total service between (10-19 years) and (59.6%) of the total sample, and (32.7%)) of the respondents in the sample have (20) years of total service or more, while the sample included (7.7%) of the respondents with total service (less than 10 years). As for the distribution of respondents in the study sample to the research centers of the University of Mosul, we find that there is a convergence in the percentage of respondents as follows: (17.3%) work in the Regional Research Center, (23.1%) work in the Research and Dams Center, (17.3%) work in the Environmental Research Center, (19.2%) work in the Remote Sensing Center, and (23.1%) work in the Mosul Studies Center.

Table (3): Characteristics of respondents in the research sample

	Groups	Mosul Studies Center	Remote Sensing Center	Environmental Research Center	Dams Research Center	Regional Research Center	Total
Sex	male	9	8	4	10	7	38 73.1%
	female	3	2	5	2	2	14 26.9%
Lifetime	Less than 30 years	—	—	2	—	—	2 3.8%
	30 - 39 Years	2	—	2	2	1	7 13.5%
	40 - 49 years	8	7	2	6	5	28 53.8%
	50 years and above	2	3	3	4	3	15 28.8%
Academic achievement	Master	3	3	5	5	2	18 34.6%
	Doctor	9	7	4	7	7	34 65.4%
Duration of service in the current position	1 – 4 years	4	2	5	3	2	16 30.8%
	5 - 9 Years	3	5	2	4	3	17 32.7%
	10 years and above	5	3	2	5	4	19 36.5%
Total length of service	1 - 9 Years	1	—	3	—	—	4 7.7%
	10 - 19 Years	8	5	4	7	7	31 59.6%
	20 years and above	3	5	2	5	2	17 32.7%
Total		12 23.1%	10 19.2%	9 17.3%	12 23.1%	9 17.3%	52 100%

Source: Program results SPSS-26

The demographic description of the respondents in the research sample shows that all respondents according to their demographic characteristics have been distributed differently to all research centers covered by the study, and that all of them hold scientific degrees (master's and doctorate), and most of them have long years of service, these characteristics will play a positive role in giving the respondents realistic impressions and perceptions about the extent of applying crisis management strategies in the research centers of the University of Mosul.

7. Results and discussion

- **Respondents' impressions about the strategic vision axis:**

The results of Table (4) show the arithmetic averages and standard deviations of the respondents' answers in the research sample on the paragraphs of the strategic vision axis.

Table (4): Averages and standard deviations of respondents' answers to the paragraphs of the strategic vision axis

| #	Paragraphs	Application level	Standard deviation	Arithmetic mean
1	The organization formed committees to discuss the crisis and find out who were the reason for its existence with how to deal with them with the researched organization.	High	0.713	4.038
2	The organization surveyed works to deal carefully with the forces causing the crisis.	High	0.766	3.962
3	Some tactical concessions are made in crisis conditions to the surveyed organization.	High	0.752	3.558
4	The organization is working to create conditions for negotiations with the parties to the crisis.	High	0.710	3.923
5	The organization surveyed works to besiege the crisis in a small scope and freeze it at the stage it has reached.	High	0.960	3.519
6	The organization surveyed works to obfuscate the media on the crisis if some news leaks about the crisis.	Mild	1.048	3.192
7	The organization surveyed works to create a kind of conflict of interest between the parties to the crisis.	Mild	0.969	2.961
8	The organization in question is helping some of the leaders involved in the conflict with a commitment to lead one of the parties to the crisis.	Mild	0.955	3.096
9	The organization is keen to use violence to destroy the initial elements of the crisis so that the crisis does not escalate and appear to many individuals.	low	1.142	2.404
10	The organization encourages the respondent not to support, maintain and limit alliances by underestimating the crisis and its impact-outcome.	Mild	1.157	3.270
11	Leadership engages with subordinates on an ongoing basis by deepening its knowledge of their needs and how to satisfy them in the appropriate ways.	High	0.885	3.962
	Strategic Vision Axis	**High**	**0.418**	**3.444**

Source: Programme results SPSS-26

The results of the above table show that the respondents in the research sample believe that the level of application of the following paragraphs in the strategic vision axis is high: The research centers at the University of Mosul form committees to discuss the crisis and find out who were the cause of its existence with how to deal with them, research centers work to deal carefully with the forces causing the crisis, some tactical concessions are made in the circumstances of the crisis to research centers, research centers work to create conditions for negotiations with the parties to the crisis, Research centers encourage research centers not to provide support to alliances, to continue and limit them by underestimating the crisis and its impact-outcome, and leadership engages with subordinates on an ongoing basis by deepening its knowledge of their needs and how to satisfy them in appropriate ways.

While the respondents in the research sample believe that the level of application of the following paragraphs in the strategic vision axis was moderate: The organization works Research centers on the media blackout on the crisis If some news about the crisis leaks, research centers work to create a kind of conflict of interest between the parties to the crisis, research centers help some leaders involved in the conflict by committing to lead one of the parties to the crisis, research centers are encouraged not to provide support to alliances, their continuation and limitation through Underestimating the crisis and its impact and consequences.

While respondents in the research sample believe that the level of keenness of research centers to use violence to destroy the initial elements of the crisis so as not to escalate the crisis and appear to many individuals, is low.

In general, the opinions of the respondents in the research sample regarding the application of the strategic vision axis in crisis management is high and by (69%) in light of the total arithmetic average on the paragraphs of the axis of (3.44) on the scale consisting of (5) degrees. Figure (2) shows the relative importance of implementing the strategic vision axiss.
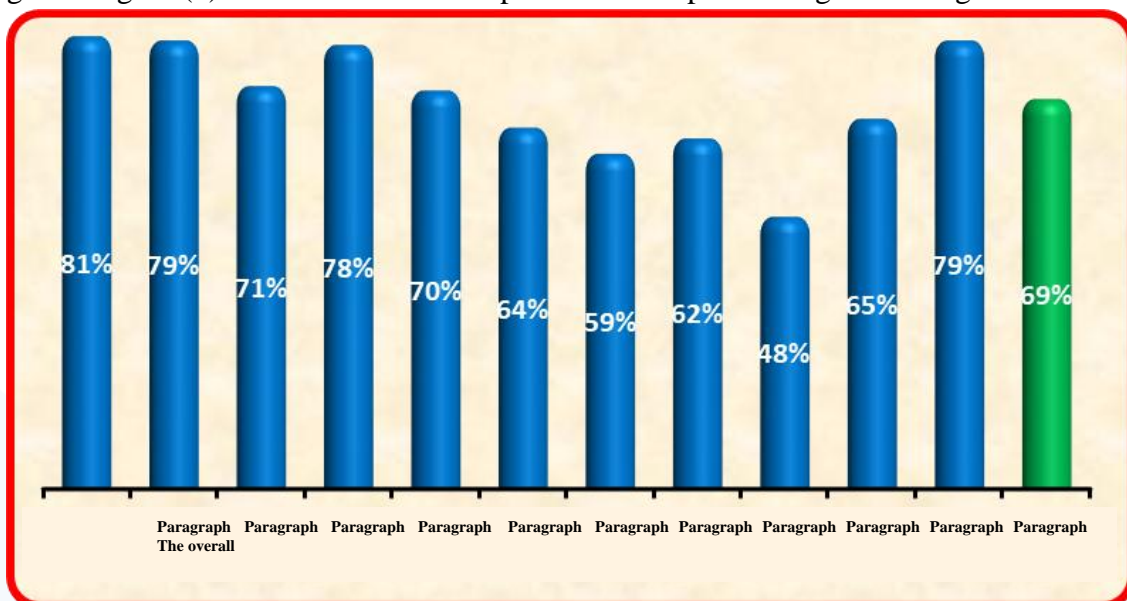
Source: Designed by the researcher Excel

Figure 2: The relative importance of implementing the paragraphs of the strategic vision axis

- **Respondents' impressions about the strategic axis:**

The results of Table (5) show the arithmetic averages and standard deviations of the respondents' answers in the research sample on the paragraphs of the strategic axis. The results of the table show that the respondents in the research sample believe that the level of application of the following paragraphs in the strategic axis is high: Research centers focus on the strategic aspect in dealing with crises by adopting effective crisis management as part of a message of excellence and excellence, the leadership of research centers depends on the involvement of members of Outside the board of directors in order to benefit from the experiences of others as consultants in managing the crises they face, as well as encourage research centers to hold training programs on the science of crisis management.

While the respondents in the research sample believe that the research centers link between strategic planning and crisis management planning is at a very high level.

Table (5): Averages and standard deviations of respondents' answers to the paragraphs of the strategic axis

#	Paragraphs	Application level	Standard deviation	Arithmetic mean
1	The organization focuses on the strategic aspect in dealing with crises by adopting effective crisis management as part of a message of excellence and excellence.	High	0.862	4.038
2	The organization linked strategic planning with crisis management planning.	Very high	4.226	4.711
3	The leadership of the surveyed organization relies on the involvement of external members in the board of directors in order to benefit from the experiences of others as consultants in managing the crises it faces.	High	0.685	4.038
4	The organization encourages the surveyed to hold training programs on the science of crisis management.	High	0.737	4.077
	Strategic axis	**Very high**	**1.106**	**4.216**

Source: Programme results SPSS-26

In general, the opinions of the respondents in the research sample regarding the application of the strategic axis in crisis management is very high and by (84%) in light of the total arithmetic average on the paragraphs of the axis of (4.22) on the scale consisting of (5) degrees. Figure (3) shows the relative importance of applying the strategic axis paragraphs.
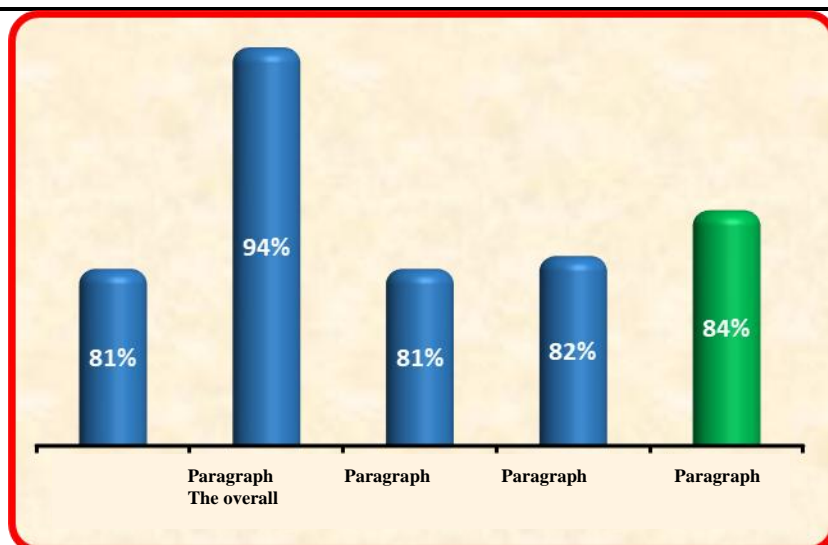
Source: Designed by the researcher Excel

Figure 3: The relative importance of the implementation of the paragraphs of the strategic axis

- **Respondents' impressions about the organizational axis:**

The results of Table (6) show the arithmetic averages and standard deviations of the respondents' answers in the research sample on the paragraphs of the organizational axis.
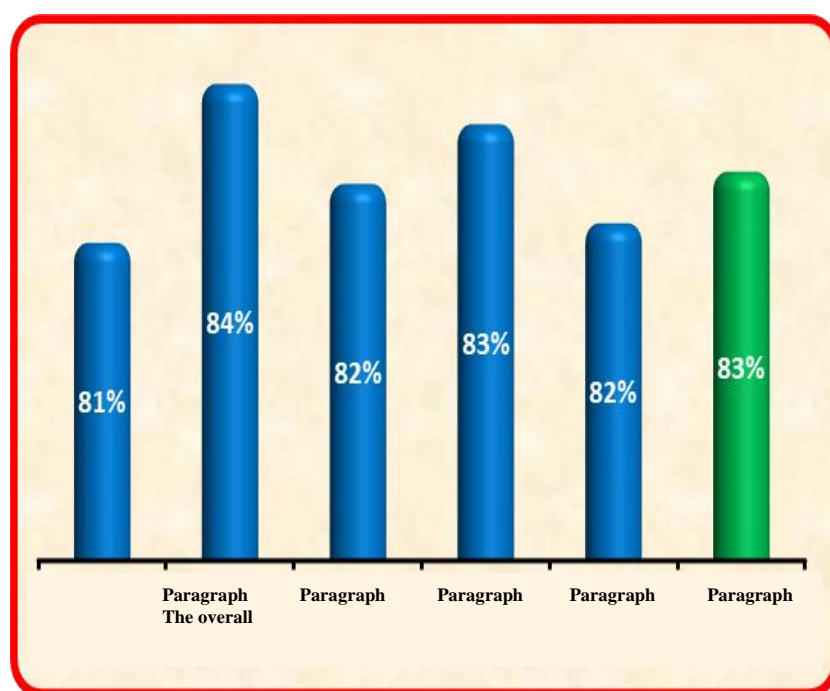
Table (6): Averages and standard deviations of respondents' answers to the paragraphs of the organizational axis

#	Paragraphs	Application level	Standard deviation	Arithmetic mean
1	The leadership of the organization surveyed is interested in providing an effective communication system between departments on the one hand and between different administrative levels on the other.	High	0.873	4.058
2	The organization surveyed is working on the development of a specialized information system for crisis management.	High	0.775	4.212
3	A specialized and qualified crisis management team is formed through which emergency plans and crisis management are reviewed and updated.	High	0.921	4.115
4	Preparing to ensure the readiness of technology from computers and management information systems in vital locations of the surveyed organization.	High	0.834	4.173
5	The surveyed organization works to find a special budget for crisis management.	High	0.925	4.077
	Organizational Axis	**High**	**0.622**	**4.127**

Source: Programme results SPSS-26

The results of Table (6) show that the respondents in the research sample believe that the level of application of the following paragraphs in the organizational axis is high:

The leaders of research centers are interested in providing an effective communication system between departments on the one hand and between different administrative levels on the other, Research centers are working on developing a specialized information system for crisis management, a specialized and qualified crisis management team is formed through which emergency plans and crisis management are reviewed and updated, technology readiness is prepared from computers and management information systems in vital locations at research centers, as well as research centers are working to find a special budget for crisis management. In general, the opinions of the respondents in the research sample regarding the application of the organizational axis in crisis management were high (83%)) in light of the total arithmetic mean on the axis paragraphs of (4.13) on the scale consisting of (5) degrees. Figure 4 shows the relative importance of applying the paragraphs of the organizational axis.

Source: Designed by the researcher Excel

Figure 4: The relative importance of the application of the paragraphs of the organizational axis

- **Respondents' impressions about the organizational culture axis:**

The results of Table (7) show the arithmetic averages and standard deviations of the respondents' answers in the research sample on the paragraphs of the organizational culture axis.

Table (7): Averages and standard deviations of respondents' answers to the paragraphs of the organizational culture axis

#	Paragraphs	Application level	Standard deviation	Arithmetic mean
1	The leadership of senior management works to improve relations with active and effective departments in the researched organization such as (work teams, research and development department, public relations).	High	0.627	4.135
2	The organization surveyed has a climate that encourages employees to report errors and warn of the possibility of crises.	High	0.804	3.981
3	The organization provides training programs to increase the ability to deal with the media during crises.	High	0.918	4.020
4	The organization publicly supports crisis management efforts, while informing employees of crisis management programs and plans.	High	0.869	3.904
	Organizational Culture	**High**	0.594	4.010

Source: Programme results SPSS-26

The results of Table (7) show that the respondents in the research sample believe that the level of application of the following paragraphs in the organizational axis is high: The leadership of senior management works to improve relations with active and effective departments in research centers such as (work teams, research and development department, public relations), a climate prevails in research centers that encourages workers to report errors and warn of the possibility of crises, research centers provide training programs to increase the ability to deal with the media during The occurrence of crises, as well as the fact that research centers publicly support crisis management efforts, while informing workers about crisis management programs and plans.

In general, the opinions of the respondents in the research sample regarding the application of the organizational culture axis in crisis management is high and by (80%) in light of the total arithmetic average on the paragraphs of the axis of (4.01) on the scale consisting of (5) degrees. Figure (5) shows the relative importance of applying the paragraphs of the organizational culture axis.
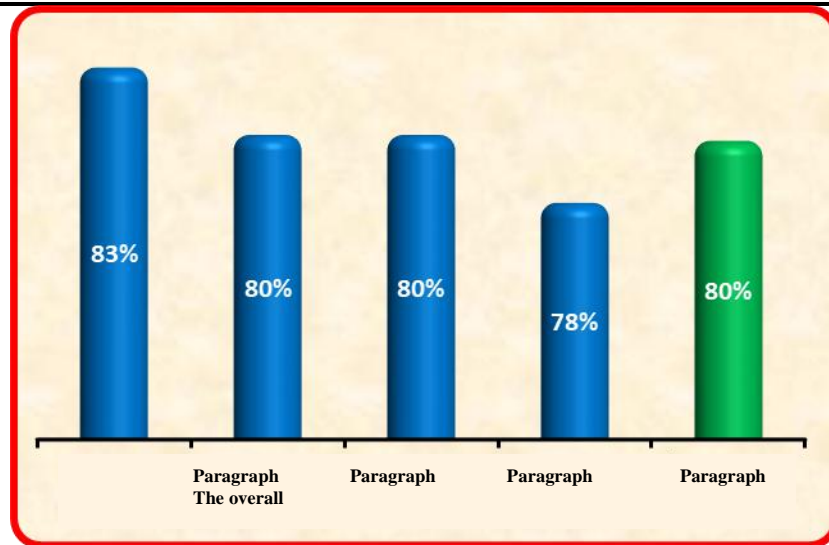
Source: Designed by the researcher Excel

Figure 5: The relative importance of applying organizational culture

Research hypothesis testing:

The main hypothesis of the study states that "there is a statistically significant relationship between the axes of crisis management strategies to deal with crises", as this hypothesis aimed to show the extent of harmony between the levels of application of the four axes of business management strategies (strategic vision, strategic axis, organizational axis, organizational culture) from the point of view of the respondents in the research sample. To test this hypothesis, Spearman's correlation coefficient is used for ranks, which is a non-parametric scale in the sense that it does not depend on the condition of the normal distribution of data, which is based on calculating the relationship between the ranks of the answers because the respondents' answers to the paragraphs of the questionnaire are according to the Likert five-point scale, which is a qualitative and not quantitative measure. This type of correlation measures the strength and type of linear relationship between the axes of The study, which appears in three cases (when the correlation coefficient is negative, i.e. less than zero, it indicates the inverse relationship between the variables, when the correlation coefficient is zero, the relationship between the variables disappears, and when the correlation coefficient is positive, i.e. greater than zero, it indicates the direct relationship between the variables). It can be seen that the strength of the relationship between the variables depends on the following positive terms of the correlation coefficient: (Meghanathan, 2016: 11)

➢ There is no relationship if the value of the correlation coefficient is equal to zero.

➢ The relationship is very positive and weak if the value of the correlation coefficient ranges between (0.00-0.19).

➢ The relationship is positive and weak if the value of the correlation coefficient ranges between (0.20-0.39).

➢ The relationship is positive and moderate if the value of the correlation coefficient ranges between (0.40-0.59).

➢ The relationship is positive and strong if the value of the correlation coefficient ranges between (0.60-0.79).

➢ The relationship is very positive and strong if the value of the correlation coefficient ranges between (0.80-0.99).

➢ The relationship is direct and perfect if the value of the correlation coefficient is equal to one.

If the value of the correlation coefficient is negative, the relationship is inverse between the variables, and in the same way the strength of the relationship can be explained as above.

Table (8) shows the values of Spearman's correlation coefficients between the axes of crisis management strategies.

Table 8: Spearman's correlation matrix between the axes of crisis management strategies

	Organizational Culture	Organizational Axis	Strategic axis	Strategic Vision
Strategic Vision	N.S0.030 (0.835)	NS0.095 (0.505)	*0.333 (0.016)	1.000 (0.000)
Strategic axis	*0.585 (0.000)	*0.598 (0.000)	1.000 (0.000)	
Organizational Axis	*0.661 (0.000)	1.000 (0.000)		
Organizational Culture	1.000 (0.000)			
	The numbers in parentheses indicate the P-Value * The correlation is statistically significant at a significant level of 5%n.s correlation is not statistically significant			

Source: Programme results **SPSS-26**

The results of Table (8) showed the following:

• The existence of a weak andstatistically significant positive relationship between the strategic vision axis and the strategic axis, where the value of the correlation coefficient (0.333) and its p-value (0.016) which is less than the level of morale (0.05), so the respondents in the study sample believe that the more the application of the strategic vision in crisis management, it leads to an increase in the application of strategic planning for crisis management, but at a low level, and vice versa.

• There is no statistically significant relationship between the strategic vision axis and the organizational axis, where the value of the correlation coefficient (0.095) and its p-value (0.505) which is greater than the level of morale (0.05), so the respondents in the study sample believe that the change in the level of application of the strategic vision in crisis management will not lead to any change in the level of application of the organizational axis of crisis management.

• There is no statistically significant relationship between the strategic vision axis and the organizational culture axis, where the value of the correlation coefficient (0.030) and its p-value (0.835) which is greater than the level of morale (0.05), so the respondents in the study sample believe that the change in the level of application of the strategic vision in crisis management will not lead to any change in the level of application of the axis of organizational

culture for crisis management.

- The existence of a moderate andstatistically significant positive relationship between the strategic axis and the organizational axis, where the value of the correlation coefficient (0.598) and its p-value (0.000) which is less than the level of morale (0.05), so the respondents in the study sample believe that the higher the level of application of the strategic axis in crisis management, this leads to an increase in the application of the organizational axis of crisis management at a moderate level, and vice versa.

- The existence of a moderate andstatistically significant positive relationship between the strategic axis and the organizational culture axis, where the value of the correlation coefficient (0.585) and its p-value (0.000) which is less than the level of morale (0.05), so the respondents in the study sample believe that the higher the level of application of the strategic axis in crisis management, this leads to an increase in the application of organizational culture for crisis management at a moderate level, and vice versa.

- The existence of a strong andstatistically significant positive relationship between the organizational axis and the organizational culture axis, where the value of the correlation coefficient (0.661) and its p-value (0.000) which is less than the level of morale (0.05), so the respondents in the study sample believe that the higher the level of application of the strategic axis in crisis management, this leads to an increase in the application of organizational culture for crisis management at a moderate level, and vice versa.

From the foregoing, and based on the above results, we find that there are statistically significant correlations between some crisis management axes, while there are no statistically significant correlations between the other axes, so it can be said that the hypothesis of the study has been partially realized.

Conclusions

1- The perceptions and impressions of the respondents in the research sample of directors and heads of departments and units of the research centers at the University of Mosul regarding the axes of crisis management strategies were positive and to a high degree, as the strategic axis ranks first in terms of application, followed by the organizational axis in second place, then the axis of organizational culture in third place, and finally the axis of strategic vision in fourth place in terms of application.

2- The existence of statistically significant correlations between some axes of crisis management strategies**, where the link was strong between** the organizational axis and the organizational culture axis, followed by the link between the strategic axis and the organizational axis, which was moderate, then the link between the organizational axis and the organizational culture axis, which was moderate as well, and finally the link between the strategic vision axis and the strategic axis, which was weak.

3- There are no statistically significant correlations between the strategic vision and organizational axis on the one hand, and between the strategic vision axis and the organizational culture axis on the other hand, so there will be no integrated application of crisis management strategies to deal with crises when they occur.

Recommendations

Based on the findings of the research, we found it helpful to make the following recommendations:

1-   The research centers of the University of Mosul should raise the degree of experience they have in using modern crisis management strategies with the knowledge gained in educational and training organizations in order to form highly qualified work teams in the face of crises that can recur from time to time.

2-   The need to work on the research centers of the Mosul Friday to establish an administrative department specialized in facing crises, and how to use modern crisis strategies with high efficiency.

3-   Attention to managing crisis strategies by following the best modern administrative methods available with the use of the latest technological communication technologies to guide modern crisis management strategies by providing the appropriate environment for work teams, whether visual or virtual, while joining and following up the rapid development in developed countries.

4-   Work to increase the skills of administrative leaders of workers in the research centers of the University of Mosul in the practice of modern crisis management strategies, and how to formulate appropriate strategies to face the crises facing them through workshops, seminars and specialized conferences.

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