Perceptions Of Faculty Members at Jordanian Universities for the Efficiency of Crisis Management at The University (Corona Pandemic as A Model)

Mariam Ayed Murtada¹, Mohammad Omar Al-Momani², Reem S. Khalidi³, Amal Abdelfattah Alsedawi⁴

Abstract

This study aims to find out the perceptions and opinions for faculty members from Jordanian universities about the efficiency of crisis management at the university, through (planning in crisis management, information in crisis management, communications in crisis management, decision-making in crisis management, and the crisis management team). Corona crisis as a model for crises. The study followed the descriptive and analytical approach, whereby the study population consisted of all faculty members at Jordanian universities, and the questionnaire was used as a tool for data collection. Then it was distributed to the sample of the study randomly that its (163) members. Then the data analyzed through the statistical program SPSS. The results showed that the perceptions of faculty members from Jordanian universities are that the level of efficiency crisis management in the university is moderate, especially during the Corona pandemic crisis. So that crisis management at the university needs to be restructured. The study recommended variable future studies in the same for a different population in the sample.

Keywords: Faculty Members, University, Corona Pandemic Crisis, Planning, Information, Communications, Decision Making and The Crisis, Management Team.

Introduction

University education is a means for the advancement and development of society. Universities are scientific institutions that contribute to the qualification of qualified human cadres to work in leadership positions in various fields in society. Therefore, it becomes imperative for these scientific institutions to keep pace with technological and environmental developments so as not to fall victim to crises, and perhaps the recent Corona crisis is a clear example of the obstacles that were not taken into account by some universities whose work was disrupted due to the outbreak of this epidemic.

The Corona crisis revealed the shortcomings of the educational systems in some universities and other educational institutions, as well as the strength and weakness of the capabilities of many universities in facing this pandemic. There is no doubt that Jordanian universities must possess a lot of capabilities that enable it to deal responsibly with different situations, and perhaps one of the most difficult situations that the university can face is the (crisis), for two main reasons:

The first reason: It is the element of threat that the crisis usually poses, and the element of time constraint, as there is not much time to take important decisions that can overcome the Corona crisis or reduce its negative effects on the efficiency of the educational process, whether it is at the administrative level of the university or the educational level for faculty members and students (Leslie, 2020)

Crises and urgent matters are an important and essential part of the university's life, regardless of their size and the nature of the operations it performs, far from crises. Even if they are not in a crisis now, they are in a pre-crisis stage and they must prepare to confront them when they arise at any time.

¹ Department of Applied Sciences, Ajloun University College, Al-Balqa Applied University, Ajloun, Jordan.

² Department of Educational Sciences, Ajloun University College, Al-Balqa Applied University, Ajloun, Jordan, Email: m.o.e.m@bau.edu.jo, (Corresponding Author), https://orcid.org/0000-0003-3871-0254

³ Department of Basic and Applied Sciences, Zarqa University College, Al-Balqa Applied University, Zarqa, Jordan.

⁴Department of Basic and Applied Sciences, Zarqa University College, Al-Balqa Applied University, Zarqa, Jordan.

University administrations should make efforts to confront the negative effects of emergency matters, anticipate societal crises, take the necessary and appropriate measures to prevent them, and deal with them when they occur with a high degree of efficiency (Khalil, 2016)

The second reason: Most universities in developed countries, but not all of them, were not the Corona epidemic an obstacle to the educational process, as the alternatives are ready and everyone is familiar with them, and the professors and students are well trained on how to use e-learning. Perhaps what caught my attention during the outbreak of the epidemic is that Harvard University and through the communication sites On its official account, it announced that, as of tomorrow, education will be electronic with ease, which is completely different with most universities in our countries, including Jordanian universities, which has been disrupted for more than three months, looking for alternatives and solutions, and at the same time, it obstructed the academic calendar, which led to the loss of the opportunity to graduate. For some students as planned.

Study Problem and Questions

Despite the multiplicity and variance of crises that universities are exposed to, and each of the crises has its own distinctive characteristics, it needs (material - administrative - human) requirements to manage it in accordance with its nature, so it is assumed that the government-funded Jordanian universities will never suffer in terms of Financial or administrative capabilities In addition to being satisfied with the number of faculty members, at the same time it was assumed that the university had provided students with the skills necessary for the e-learning process to avoid falling into crises. The problem of the study is determined in answering the following main question:

What are the perceptions of faculty members at Jordanian universities for the efficiency of crisis management at the university): Corona pandemic as a model?

The following sub-questions are derived from the main question:

What are the opinions of the faculty members at Jordanian universities regarding the efficiency of the university administration in managing the Corona pandemic?

Are there differences in their opinions due to gender or age variables?

The Importance of Studying

Who are the parties that can benefit from the results of the study:

- The management of Jordanian universities to identify the strengths and weaknesses through this
 crisis.
- Exciting thinkers and researchers to get acquainted with the reality of crisis management at the university and the extent of its adaptation to global trends.
- To benefit the researchers in finding new research in this field, and the possibility of conducting similar studies on other samples.

Objectives Of the Study

- Determining the perceptions of faculty members at Jordanian universities for the efficiency of crisis management at the university (the Corona pandemic as a model.(
- Shedding light on the negatives of crisis management at Jordanian universities in order to avoid them and enhance the positives.

ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online) https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i5.3882

Terminology Of Study

This study included terms and concepts, the most important of which are:

Crisis is the existential threat to high-value community assets .The COVID-19 crisis threatens not only the health and lives of large segments of the population, but also the economic interests and basic institutions of the political system .That is why it was called the corona crisis. Brinks and Ibert, 2020.(

Crisis Management) idiom: (is the process through which the organization deals with a devastating and unexpected event that threatens to harm the organization or its stakeholders. The study of crisis management arose with large-scale industrial and environmental disasters in the eighties, so it is considered the most important process in public relations) Bundy, et al., 2017.(

The Researcher Defines Crisis Management Procedurally: the set of measures taken by Jordanian universities to confront the Corona crisis, and these measures take place before, during or after the occurrence of the crisis.

The Limits of The Study

- Objective Limits: The study is limited to addressing five areas to measure the efficiency of crisis management, which are planning in crisis management, information in crisis management, communications in crisis management, decision-making in crisis management, and crisis management team.
- *Human Limits*: The study is limited to faculty members at Jordanian universities during the first semester of the year2021/2020M.
- Spatial Boundaries: This study was conducted at Jordanian universities.
- Time Limits: This study was applied in the first semester of the academic year 2020/2021.

Previous Studies

Several previous studies related to the subject of the study were reviewed in order to give an adequate background about it, and they were presented according to their chronology from the oldest to the most recent.

conducted by Garcia, 2015 (A study entitled "The leadership crisis of the roles of heads of the university in the crisis in higher education: the case of a system of Florida study ", where all the heads of the university interview, the directors of the crisis, where the number reached (16 management) participants, including (6) heads, and (10) Crisis management managers. This study aimed to better understand the phenomenon of crisis leadership in higher education. Participants believe that different definitions of the crisis, university culture towards crisis management, the roles played by university presidents, resources (existing and missing), and the inevitable change of the crisis all play an important role in leadership. The study also showed that the participants also believed that the role of the university president became more relevant with regard to security and safety on the campus. The study emphasized the need for cooperation between the heads of crisis management teams and the university presidents.

conducted (hospitally ,2019) A study entitled "The reality of crisis management in Algerian universities, specifically Larbi Ben M'hidi University in Oum El Bouaghi, through the study of the strikes of students of the Institute of Physical Education and Sports Technologies and Sciences", where the case study approach was adopted and by following the interview as a basic tool for data collection, which included 9 vocabulary and component From 19 questions to the most important results that revealed that

the causes of the crisis lie in asking students to open jobs in the primary phase for specialists only. The results also showed that the crisis management team relied on two traditional methods in facing the crisis, namely the coercive bargaining method and the persuasion bargaining method. Finally, the results showed that the crisis management team faced several obstacles that hindered the progress of the tasks entrusted to it.

A was McGuinness and Marchand) McGuinness & Marchand, 2014 (Study aimed to detect the process of communication during crises between universities and students in higher education institutions in the United Kingdom. The study tool was a case study, and data were collected by conducting in-depth interviews on (12) individuals. The results of the study indicated that universities did not pay much attention to the process of communication during crises between universities and students.

conducted by) Abdul Rahman,2018 (Study aimed to reveal the reality of crisis management in Balqa University. The study sample consisted of 240 male and female members who were chosen by the simple random method, where the study tool was the questionnaire and the descriptive analytical method and the field study method were used. The results of the study showed that the reality of crisis management at Al-Balqa Applied University came at an average level. The most prominent recommendations of the study were the establishment of a specialized unit in crisis management at the level of each college, working on the principle of partnership between university leadership and workers, and restoring employees' confidence in the administrative and academic leadership.

Commenting On Previous Studies

The previous studies, both Arab and foreign, varied, whether at the level of study tools, society or the variables used, as the results of those studies were highlighted and the tools used to build upon them. All these studies were also keen to identify the reality of crisis management and the necessity of its efficiency.

The researcher benefited from previous studies by learning about crisis management in many universities around the world, as well as getting to know the perceptions of faculty members in universities.

Field Method And Procedures

Study Approach

To achieve the objectives of the study, the (quantitative) approach was used in its survey form, as it is the most appropriate in achieving the objectives of this study. Where the researcher followed in his study the descriptive analytical approach, where he monitored the dimensions of crisis management efficiency represented in (planning in crisis management, information in crisis management, communication in crisis management, decision-making in crisis management, and crisis management team), and data was collected about these dimensions Then analyze it with the aim of arriving at specific results that help explain the phenomenon.

The Original Community of Study and Sampled

The study population consisted of all faculty members at Jordanian universities, and in a next step, the researcher chose a stratified random sample consisting of (162) male and female members, The size of the sample to be drawn from the original population was determined based on the law of minimum selection of samples. Table No. (1) represents the distribution of the study sample according to demographic variables.

Table (1): Distribution of The Sample Members According to The Gender Variable

variable	Category	Repetition	percentage
	<i>0</i> ,	•	%

DOI: https://doi.org/10.62754/joe.v3i5.3882

	Male	113	69.3
Gender	Feminine	50	30.7
	Total	163	100.0
	Under 35 years old	16	9.8
The age of	From 35 to 55 years old	117	71.8
the faculty member	56years and over	30	18.4
	Total	163	100.0

It appears from Table No. (1:(

- According to the gender variable, males are the most frequent, which amounted to (113) with a
 percentage of (69.3%), while females are the least frequent, which reached (50) and with a
 percentage of (30.7%.)
- According to the variable of the age of the faculty member, employees aged (from 35 to 55 years) are the most frequent, which reached (117) with a percentage of (71.8%), while employees aged (less than 35 years) are the least frequent, which amounted to (16) and by a percentage (9.8%.)

Study Tool

A questionnaire was developed for faculty members based on previous studies as a measure (Abdul Rahman, 2018), and the opinions of some experts and those interested in this field to measure the efficiency of crisis management at Jordanian universities. Thus ,the researcher was able to identify the areas under which the study tool was formed, and a number of paragraphs were placed under each of the areas covered by the study, and the measurement tools used in a number of studies were used, and the tool in its initial form included areas such as: First: the field of university administration in Crisis management, second: the field of planning in crisis management, third: the field of communications in crisis management, fourth: the field of decision-making in crisis management, fifth: the field of crisis management team.

The five-point Likert scale was used, which is represented in the following: very high rating and weight (5), high rating and weight (4, (medium rating and weight (3), low rating and weight (2), low rating Very weight is given (1.)

The Validity of The Questionnaire: The Validity of The Questionnaire Was Calculated in Two Ways:

Apparent Honesty (The Honesty of Arbitrators)

To verify the validity of the content of the study tool, it was presented to (12) specialized and experienced arbitrators from faculty members in colleges of education in various Jordanian universities. Some paragraphs were modified without being deleted based on the arbitrators' directives, so the questionnaire came out in its final form, consisting of (25) paragraphs.

Internal Consistency Validity (Pearson Correlation)

The correlation coefficients between the dimensions of the study with each other and with the overall scale of the study were calculated by the split-half method) Split half (By applying the questionnaire to individuals outside the study sample consisting of (20) members of the teaching staff, and then the Pearson correlation coefficient was calculated between their estimates in the two halves of the tool. Table 2 illustrates this.

Journal of Ecohumanism
2024

Volume: 3, No: 5, pp. 167 – 177

ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)

https://ecohumanism.co.uk/joe/ecohumanism

DOI: https://doi.org/10.62754/joe.v3j5.3882

Table (2) Correlation Coefficients Between the Dimensions of The Study Tool With Each Other And with The Overall Scale

Corr elation according to variables	st atistician	Le adership in crisis manageme nt	41010	aking decision s in crisis manage ment	Inf ormation in crisis manageme nt	Com munication in crisis management	he scale as a whole
Lead ership in crisis management	co rrelation coefficient	1					
	St atistical significanc e						
Crisis management planning	co rrelation coefficient	.8 19 **		1			
	St atistical significanc e	.0					
Maki ng decisions in crisis management	co rrelation coefficient	.8	892 **	1			
	St atistical significanc e	.0	000				
Infor mation in crisis management	co rrelation coefficient	.7 86 **	924 **	926 **	1		
	St atistical significanc e	.0	000	. 000			
Com munication in crisis management	co rrelation coefficient	.6	846 **	817 **	.86	1	
	St atistical significanc e	.0	000	. 000	.00		
the scale as a whole	co rrelation coefficient	.8	960 **	956 **	.96	.903	
	St atistical significanc e	.00	000	. 000	.00	.000	

^{*}function at the significance level of 0.05

**Function at 0.01 . significance level

Table (2) shows the correlation coefficients between the dimensions of the scale on the one hand with each other and with the overall scale on the other hand, where the values of the correlation coefficients between the dimensions ranged between (0.668-0.926), and the values of the correlation coefficients between the dimensions with the overall scale were between) 0. 877-0.966. (It should be noted that all correlation coefficients were of acceptable and statistically significant degrees.

The stability of the questionnaire, to verify its stability, the researcher used the following methods:

Cronbach's Alpha method Cronbach's Alpha

It is a method that requires calculating the correlation of phrases with each other (Mikhail, 2006. (To ensure the stability of the tool, the stability coefficient was calculated using the internal consistency method according to Cronbach's alpha equation. Table No. (3) shows the stability coefficients of the resolution and each of its dimensions using Cronbach's alpha equation Cronbach's Alpha.

the number Cronbach's alpha the field number of paragraphs coefficient Leadership crisis 5 0.92 1 management 2 Crisis management planning 5 0.90 Making decisions crisis 3 5 0.91 management Information crisis 4 5 0.97 management Communication crisis 5 5 0.94 management 25 The resolution as a whole 0.98

Table 3: Cronbach's Alpha Coefficients for Fields of Study

It appears from Table (3) that the Cronbach's alpha coefficients for the study areas ranged between (0.90-0.97), the highest for the "information in crisis management" field, and the lowest for the "planning in crisis management", and the Cronbach's alpha coefficient for the questionnaire as a whole was (0.98;(All stability coefficients are high and acceptable for the purposes of the study, where the reliability coefficient (Cronbach's alpha) is considered acceptable if it is more than (0.60.)

Tool Correction Method

The questionnaire was prepared so that professors can determine the degree of availability of crisis management tools at Jordanian universities in light of the Corona pandemic, on the Likert scale) Likert (consisting of five degrees arranged in descending order as follows): Very big = 5 degrees), (Significant = 4 degrees), (Medium = 3 degrees), (Few = 2 degrees), and (Very few = 1 degree) The response time was divided from (5 - 1) into 3 categories of equal length, i.e. a length of (1.33) and accordingly the following criterion was used for the purpose of judging the degree of crisis management at Jordanian universities according to the statistical gradation of the distribution of arithmetic averages.

First: The arithmetic mean (1.00 - 2.32) was considered to have a low degree of applicability.

Second: The arithmetic mean (2.33 - 3.65) was considered to have a medium degree of applicability.

Third: The arithmetic mean (3.66 - 5.00) was considered to have a high degree of applicability.

m

Study Analysis Results

whole

This part of the study includes a detailed presentation of the statistical analysis of the results of the study, which aims to determine the perceptions of faculty members at Jordanian universities for the efficiency of crisis management at the university (the Corona pandemic as a model ,(and these results will be presented based on the research questions.

Results related to answering the first question: What are the opinions of the faculty members at Jordanian universities regarding the efficiency of the university administration in managing the Corona pandemic?

To answer this question, the arithmetic averages and standard deviations of the questionnaire's axes (leadership in crisis management, planning in crisis management, decision-making in crisis management, information in crisis management, communication in crisis management) were calculated, and table (4) illustrates this.

SM Degre th standa Ran Paragraph A rd deviation e number k e 3.2 Leadership in mediu 1 .970 1 crisis management m Communicati 2.9 mediu 5 2 1.05 in crisis on 9 m management Making 2.9 mediu 3 3 decisions in .870 crisis 6 m management Crisis 2.9 mediu .910 4 management planning 4 m Information 2.7 mediu 4 1.10 5 in crisis management 8 m 2.9 questionnaire mediu 0.913 ---

Table (4): Arithmetic Averages and Standard Deviations of The Questionnaire Axes

Table (4) shows the arithmetic averages and standard deviations of the questionnaire axes, as the arithmetic mean of the questionnaire as a whole was (2.99) and standard deviation (0.913) at an average level, as the arithmetic averages ranged between (2.78 - 3.27), where the leadership field in crisis management came in the first place With an arithmetic average of (3.27) and an average level, and in the second place, the field of communication in crisis management, with a arithmetic average (2.99) and an average level, and in the third place the field of decision-making in crisis management with a mean of (2.96 (and an average level, and in the fourth place the field of planning in crisis management with an average My arithmetic (2.94) at an average level, and the information field in crisis management came in the fifth and last rank with an arithmetic average (2.78) and an average level.

Results related to the answer to the second question: Are there differences in the opinions of faculty members at Jordanian universities in the efficiency of university administration in managing the Corona pandemic due to gender or age variables?

To answer this question, the arithmetic averages and standard deviations were calculated, the opinions of the faculty members at Jordanian universities in the efficiency of the university administration in managing the Corona pandemic according to the variables of gender and age, and the application of the t-test for independent samples and the one-way analysis of variance "q" to determine the differences between the arithmetic averages, and Table (5)) shows that.

https://ecohumanism.co.uk/joe/ecohumanism

DOI: https://doi.org/10.62754/joe.v3i5.3882

Table (5) T-Test for Independent Samples and One-Way Analysis of Variance Test to Find the Differences for The Opinions of Faculty Members at Jordanian Universities on The Efficiency of University Administration in Managing the Corona Pandemic According to The Variables of Gender and Age

able	vari	Cate gory	t he number	Arith metic mean	stan dard deviation	T est value	Stati stical significance
	Ge	Male	1 13	3.00	1.00	Т	.808
nder		femi nine	5	2.96	.680	= .243	.000
		er 35 years old	1 6	2.39	1.02		
	Age	Fro m 35 to 55 years old	1 17	3.08	.840	= 4.16 q	.017
		years and over	3	2.97	1.04		

Table (4) shows a t-test for independent samples and a one-way analysis of variance test to find the differences for the opinions of faculty members at Jordanian universities on the efficiency of university administration in managing the Corona pandemic according to gender and age variables, where the results showed the following:

There are no statistically significant differences for the opinions of faculty members at Jordanian universities in the efficiency of the university administration in managing the Corona pandemic, according to gender variables, where the value of T (0.243) and statistical significance (0.808), which is not statistically significant .

There are statistically significant differences for the opinions of faculty members at Jordanian universities in the efficiency of the university administration in managing the Corona pandemic according to age variables, where the value of P is (4.16) and with statistical significance (0.017), which is statistically significant, and these differences are attributed to the benefit of the age group (from 35 to .(55 year .(

Discuss The Results

The results of the statistical analysis showed that there are statistically significant differences in the opinions of faculty members at Jordanian universities in the efficiency of university administration in managing the Corona pandemic, according to age variables only. As the faculty members at Jordanian universities who have opinions and perceptions about the efficiency of the university in managing the crisis, especially the Corona pandemic, are between the ages of 35 and ,55 and this indicates that the owners of this age have realistic perceptions and have implications for how the university manages its crises.

On the other hand, the results of the statistical analysis showed that the perceptions and opinions of faculty members about the efficiency of the university in managing the crisis, especially the Corona pandemic, are that the university administration did not pay much attention to the leadership process.

During the Corona crisis, this result was in agreement with a study) Garcia, 2015. (And that the decision-making process in crisis management by the university administration went without central information systems, and did not care about its participation with faculty members, and this result agreed with the study (Abdul Rahman, 2018. (As for the opinions of faculty members about the university's management of information in crisis management, they are somewhat traditional, as the process of drawing conclusions

Volume: 3, No: 5, pp. 167 – 177 ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)

https://ecohumanism.co.uk/joe/ecohumanism DOI: https://doi.org/10.62754/joe.v3i5.3882

regarding the crisis is the work of the administration only without participatory work with faculty members. She did not bother to rationalize decisions related to the Corona crisis. And that the university administration was not keen to complete the communication processes quickly to limit the aggravation of the damages of the crisis, despite the fact that it provides various communication systems and this result agreed with the study) McGuiness & Marchland, 2014, (in addition to that it adopts an open-door policy during internal communications to confront the crisis, but without interest in completing it, and it has no endeavors to qualify human cadres to deal with emerging communications systems to contain the current and future crisis.

Conclusion

This study aimed to know the opinions and perceptions of faculty members at Jordanian universities about the efficiency of the university's management of crises, especially the Corona crisis, which caused an almost complete disruption of educational life due to political measures by governments. A questionnaire was designed to measure opinions and perceptions that can show the level of efficiency of Jordanian universities's administration in overcoming this crisis. It was found that the faculty members between the ages of 35 and 55 expressed their opinions objectively and without bias, as it was found that the level of efficiency of the university's management of the Corona crisis is average, meaning that it needs other and more advanced policies in the journals studied, namely (Planning in Crisis management, information in crisis management, communication in crisis management, decision-making in crisis management, and crisis management team.(

Recommendations

After discussing the results, the following recommendations emerged:

- The university should re-improve its crisis management planning processes.
- The university should develop its information centers in crisis management.
- The university should restructure communication processes in crisis management.
- The university should change the policies of the decision-making process in crisis management.
- The university should seek to develop more efficient manpower recruitment processes in order to form a crisis management team.
- It is necessary to work on future studies to determine the processes that the administration of Jordanian universities should adopt in order to avoid future crises.
- Working on future studies for the same variables but for a different population in order to generalize the sample and thus generalize the result.

References

Ababneh, Saeed and Ashour, Mohammed (2017). The reality of crisis management in Jordanian public universities in northern Jordan. Journal of the Islamic University of Educational and Psychological Studies . Issue 3. pp. 715-742. Abdel Rahman, Iman (2018). The reality of crisis management in Jordanian higher education institutions - a field study on Al-Balqa Applied University. An-Najah University Journal for Research . Volume 33 (7). Palestine.

back, Reham Rassem. (2008). The reality of crisis management in higher education institutions in the Gaza Strip : An applied study on the Islamic University, Gaza.

Bidiaf, Khadija (2019). The reality of crisis management in Algerian universities: a case study of crisis management for students of the Institute of Physical Education and Sports of the University of Larbi Ben M'hidi Oum El Bouaghi . Master's Thesis, University of Larbi Bam M'hidi - Oum El Bouaghi, Algeria, Algeria.

Brinks, V., & Ibert, O. (2020). From corona virus to corona crisis: The value of an analytical and geographical understanding of crisis. Tijdschrift voor economische en sociale geografie, 111 (3), 275-287.

Bundy , J., Pfarrer, MD, Short, CE, & Coombs, WT (2017). Crises and crisis management: integration, interpretation, and research development . Journal of management , 43 (6), 1661-1692. ? Foreign references

Volume: 3, No: 5, pp. 167 – 177 ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)

https://ecohumanism.co.uk/joe/ecohumanism

DOI: https://doi.org/10.62754/joe.v3i5.3882

- Garcia, B. (2015). Crisis Leadership: the role university president and managers play in higher education- a case study of the state university system of Florida, Ph.D dissertation, Florida International University. Miami, Florida.
- Khalil, Essam (2016). The reality of crisis management in Palestinian government schools from the point of view of principals in the southern West Bank. Journal of Educational Sciences. number two. folder 1.
- Leslie, L. (2020), Coronavirus: Tips to help you make good decisions despite the stress of the crisis, published article, BBC News website, from: https://www.bbc.com/arabic/vert-cap-52388195 .
- Mc Guinness M & Marchand R (2014). Business Continuity Management in UK Higher Education: A Case Study of Crisis Communication the Eat of Social Media. International Journal of Risk Assessment and Management . 17(4), p. 291 310.
- Michael, Emtanios. (2006). Measurement and evaluation in modern education . Fourth Edition, Damascus, Damascus University Publications.
- Odeh, Reham (2008). The reality of crisis management in institutions of higher education in the Gaza Strip an applied study on the Islamic University, master's thesis, the Islamic University, Gaza, Palestine.
- Taaleem Electronic Newspaper, (2019), a recent statistic: the majority of the faculty members at Jordanian universities are awaiting promotion, an electronic article published, Taaleem electronic newspaper, from the official website of the newspaper:https://taleem.com.kw/amp/2019/03/12.

.