

Effectiveness of crisis management in Jordan sports sector amid COVID-19 Pandemic: Jordan Gymnastics Federation (JGF) as a model

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ABSTRACT

The aim of this study was to identify the effectiveness of crisis management in Jordan Sports Sector at the Jordanian Gymnastics Federation (JGF) during the COVID-19 pandemic. The descriptive approach was chosen due to its relevance to the nature, problem and objectives of the study. The questionnaire, specifically prepared for this study, was used as an instrument for data collection, consisting of 25 items. The study sample consisted of 16 randomly selected participants from the administrative and technical staff (N = 9), referees (N = 3) and 16-year-old players of the JGF (N = 4). To obtain the related results, the Statistical Package for the Social Sciences (SPSS) was used. The results of the study showed the lack of plans based on scientific foundations to manage the crisis in the JGF, as well as a lack of human and material capacity to confront the crisis in the JGF. The results also indicated that there are no statistically significant differences in the effectiveness of crisis management at the JGF based on the variables of gender ($p = .636$) and job title ($p = .083$). The study recommends developing crisis management strategies at the JGF, based on scientific foundations by specialists in the crisis management domain, and providing trained and qualified human cadres to manage crises at the JGF.

KEYWORDS

Crisis Management; COVID-19 pandemic; Gymnastics Federation

1. INTRODUCTION

The world today is in the midst of the battle with one of the most dangerous and severe crises affecting humanity in various sectors, namely the COVID-19 pandemic. The World Health Organization (WHO) on March 11, 2020, has declared the novel coronavirus (COVID-19) outbreak a global pandemic that quickly spreads and infects the vast majority of countries in the world, forcing

these countries to impose many preventive requirements to limit its spread, including total closures in various sectors, disruption of aspects of public life and avoiding of leaving homes (WHO, 2020).

As outlined by Milic & Bhaumik (2021), there is a need to stay at home and not go out except in emergencies that threaten life, such as emergency health cases or to buy food, demonstrating that we are not endangering our lives and the lives of others. Since then, the COVID-19 pandemic crisis has become the main headline in various media, as all countries of the world are still doing their best to fight this new coronavirus and mitigate the negative effects of the pandemic in various fields.

Like other sectors, the COVID-19 pandemic affects the sports sector in all countries of the world, which has led to the cancellation and postponement of many sports events and activities of all kinds, whether local or international, and causing various severe damages to this sector. Alzeer (2020), points out that as a result of the COVID-19 pandemic, the sports federations have been exposed to a financial crisis, their inability to commit to paying the financial dues, whether to the technical and administrative bodies, players, referees and employees of these federations, in addition to the low technical and skill level and the low morale and enthusiasm of the players and technical cadres of the national teams as a result of the discontinuation of activities.

COVID-19 pandemic is a real test of the capabilities of sports institutions, including sports federations, on how to manage the crisis and deal with its short and long-term effects. Belli (2020) indicates that there is a discrepancy in the administrations of sports institutions about combating and managing the crisis of the COVID-19 pandemic. There are administrative systems that have the material and human capabilities that qualify them and enable them to manage this crisis well. However, there are also administrative systems that deal with this crisis haphazardly due to poor capabilities, which is a problem that needs a real solution. The aim of this study is to identify the effectiveness of crisis management at the Jordanian Gymnastics Federation (JGF) during the COVID-19 pandemic, and also to identify the differences in the effectiveness of crisis management according to the study variables of gender and job title.

COVID-19 blow and crisis have hit the sports sector in all its forms in general and gymnastics in particular. Some leaders, managers and heads in the sports sector are incapable and unprepared to deal with crises effectively. This is due to the low level of awareness of the importance of crisis management and the lack of preparation and training programs, plans and appropriate administrative methods for managing crises in the sports sector, as added by (Ismail, 2020). Accordingly, the problem of the study lies in exploring the effectiveness of crisis management in Jordan Sports Sector at the Jordanian Gymnastics Federation (JGF) during the COVID-19 pandemic.

To achieve the objectives of the study, the following research questions were formulated: 1) What is the degree of the effectiveness of crisis management of the Jordanian Gymnastics Federation during the COVID-19 pandemic? 2) Are there statistically significant differences at the level 0.5 or less in the effectiveness of crisis management of the Jordanian Gymnastics Federation during the COVID-19 pandemic according to the study variables of gender and job title?

The significance of this study lies in the novelty of the topic and the lack of studies and research that have addressed the subject of the study as the topic of the degree of the effectiveness of crisis management at the Jordanian Gymnastics Federation during the COVID-19 pandemic. COVID-19 is of great interest to many technical and administrative cadres, players, referees and researchers at the Arab and Jordanian levels. This study is also important because it provides feedback to the leaders of sports federations in general and the Jordanian Gymnastics Federation in particular on the effectiveness of crisis management during the COVID-19 pandemic. It is hoped that officials and decision-makers in the sports sector will benefit from the findings and recommendations of this study. Furthermore, this is a significant study as it is one of the few studies conducted on the effectiveness of crisis management at the Jordanian Gymnastics Federation.

2. METHODS

2.1. Study design and participants

A cross-sectional study was carried out. The descriptive approach was chosen due to its relevance to the nature, problem and objectives of the study. It was also used to analyze the data and explain the results due to its relevance to the nature and purposes of the study. The study population consisted of 20 participants representing the administrative and technical staff, referees and 16-year-old players at the Jordanian Gymnastics Federation. The 16 participants of the study were randomly selected and the study sample constituted 80% of the study population. Table 1 shows the distribution of the study sample according to the independent variables, namely gender and job title.

Table 1. Description of the study sample

Variable	Category	Number	Percentage
Gender	Males	13	81.3
	Females	3	18.7
Job title	Referee	3	18.7
	Administrative	5	31.3
	Coach	4	25.0
	Player	4	25.0

2.2. Instrument

In this research paper, the questionnaire was used as an instrument for data collection as it was prepared according to the following procedures: personal interview with officials and experts in the sports sector to obtain data and information that benefit the study, review of books, research papers and previous scientific studies related to the subject of the study as these references are used in constructing the study instrument, i.e. the questionnaire, determination of the items of the questionnaire in its initial form and then presenting them to a group of experts, specialists and validators from PhD (holders from the fields of physical education and management, where the items are reformulated, i.e. classified as appropriate or inappropriate or modified according to the specialists' requirements, until the questionnaire is given its final form. The response scale were organized according to the 5-point Likert Scale as follows: (1) I agree with a very large degree and it has five degrees; (2) I agree with a large degree and it has four degrees; (3) I agree with a moderate degree and it has three degrees; (4) I agree with a small degree and it has two degrees; (5) I agree with a very small degree and it has only one degree.

In order to verify the validity of the study instrument, it was presented to a committee of validators consisting of 10 specialized validators who hold a PhD in physical education to express their views on the validity of the linguistic wording of the items, its degree of clarity and its relevance to the measured dimensions, and any observations, modifications, omissions, or additions they deem appropriate. Importantly, the opinions of the validators represent the validity of the content of the instrument. After making the appropriate modifications, the questionnaire is constructed in its final form. As for the reliability coefficient, it was calculated for each domain of the current study using Cronbach's alpha formula. Table 2 shows the results of the reliability coefficient.

Table 2. The reliability of crisis management effectiveness domains using Cronbach's alpha formula for internal consistency

No.	Stages	Items No.	Reliability Value
1	The early warning stage	5	0.892
2	The preparedness and prevention stage	5	0.894
3	The damage containment stage	5	0.886
4	The recovery stage	5	0.882
5	The learning stage	5	0.837
Effectiveness of the crisis management in the sports sector		25	0.970

Table 2 shows that the reliability value for the items of the crisis management scale at the Jordanian sports sector during the COVID-19 pandemic is 0.970. In detail, the reliability value for the early warning stage domain is 0.892, while the preparedness and prevention stage domain is 0.894. Likewise, the damage containment stage is 0.886, while the value for the recovery stage domain is 0.882. Regarding the learning stage domain, it is 0.837. These values are considered high because they are above the value 0.60, which is considered the minimum in exploratory research. Furthermore, these values are close to the upper limit of the reliability results that can be attained, which is the one integral. Therefore, these values are considered acceptable and sufficient for conducting this research.

2.3. Statistical Analyses

To obtain the related results, the Statistical Package for the Social Sciences (SPSS) and several statistical processing have been suitably used as follows: arithmetic means, standard deviations, and percentages, Scheffé's test for multiple comparisons, along with Cronbach's alpha formula test to find the reliability values of the test, and the Mann-Whitney and Kruskal-Wallis tests to find the differences in the effectiveness of crisis management according to the gender and job title variables. The level of significance for all statistical tests was set at $p < 0.05$. Also a 3-level rating scale was used to describe the levels of the arithmetic means, which are obtained as follows: Low (1.00 - 2.33); Medium (2.34 - 3.67); High (3.68 – 5.00).

3. RESULTS AND DISCUSSION

This section gives insight into the results and discussion related to the two questions of the study. To answer the first research question (what is the degree of the effectiveness of crisis management of the Jordanian Gymnastics Federation during the COVID-19 pandemic?), the arithmetic means, standard deviations, and estimated level of the participants' responses of the degree of the effectiveness of crisis management of the Jordanian Gymnastics Federation during the COVID-19 pandemic were calculated, as shown in Table 3.

By reviewing the arithmetic mean of the total score for the scale, we can see that it is $M = 1.96$, thus achieving a low level according to the classification scale used. It was also noted that the preparedness and prevention stage has achieved the highest value among the arithmetic means with a value of $M = 2.14$ and this value is classified as a value with a low level on the one hand. On the other hand, the learning stage achieved the lowest value of the arithmetic mean of $M = 1.69$ and this

mean that the value represents a low level. Generally, the values of the arithmetic mean for the items of the crisis management scale in the Jordanian sports sector at the Jordanian Gymnastics Federation as a model varies between these two values of the arithmetic means. This is due to the lack of plans to manage the crisis before, during and after its occurrence, as well as the failure to employ modern administrative concepts for crisis management in the administrative process of the Jordanian Gymnastics Federation to reduce the negative effects of any crisis. This is inconsistent with the study of Abu Shehab & Al-Maharma (2018), which confirms the awareness of sports activities supervisors.

Table 3. Results of the domains of the degree of effectiveness of crisis management

No.	Stages	M	SD	Level	Rank
1	The early warning stage	1.84	0.86	Low	4
2	The preparedness and prevention stage	2.14	1.00	Low	1
3	The damage containment stage	2.10	0.91	Low	2
4	The recovery stage	2.03	0.84	Low	3
5	The learning stage	1.69	0.60	Low	5
Effectiveness of the crisis management in the sports sector		1.96	0.79	Low	

Note: Classification of arithmetic mean values: Low (1.00-2.33); Medium (2.34-3.67); High (3.68-5.00).

The following table (Table 4) shows the values of the arithmetic means, standard deviations, and estimated levels for the responses of the study participants to the items of the early warning stage domain.

As we can see from Table 4, the arithmetic mean of the total score for the stage was $M = 1.84$, thus achieving a low level according to the classification scale used. It is noted that the first item which states: "The Federation monitors any change in the internal and external environment with a strategic view as an early warning" has achieved the highest value among the arithmetic means ($M = 2.00$), which is classified as a value at a low level, while item 5, which states: "The Federation holds periodic meetings aimed at assessing the expected risks" has achieved the lowest value of the arithmetic mean, with a value of $M = 1.50$ and this mean represents a low level. The values of the arithmetic means for the items of the early warning stage vary between these two values are the arithmetic averages. These values result from the lack of interest in those in charge of the Federation to provide the necessary plans to discover early warning signals that predict the imminence of the crisis to prepare for it, the absence of plans to hold meetings periodically to assess risks, and the

shortage of strategies that analyze the internal and external environment to identify on strengths and weaknesses.

Table 4. Results of the items of the early warning stage domain

No.	Early warning stage	M	SD	Level	Rank
	Items				
1	The Federation monitors any change in the internal and external environment with a strategic view as an early warning	2.00	0.97	Low	1
2	The Federation has the necessary capabilities to detect early warning signals	1.94	1.00	Low	2
3	The Federation sets future plans to deal with the expected crises	1.94	1.18	Low	2
4	The Federation holds training courses for employees to face any potential crisis	1.81	1.22	Low	4
5	The Federation holds periodic meetings aimed at assessing the expected risks	1.50	0.73	Low	5
Total score of the early warning stage		1.84	0.86	Low	

Note: Classification of arithmetic mean values: Low (1.00-2.33); Medium (2.34-3.67); High (3.68-5.00).

Here, Table 5 shows the values of the arithmetic means, standard deviations, and estimated levels for the responses of the study participants to the items of the preparedness and prevention stage domain.

From Table 5 we can see that the arithmetic mean of the total score for the stage of preparedness and prevention was $M = 2.14$, thus achieving a low level according to the classification scale used but the item 4 which states: "The Federation develops preventive guidelines for crises" has achieved the highest value among the arithmetic means, with a value of $M = 2.81$ and this value is classified as a value at a medium level, while item 5, which states: "The Federation conducts virtual practical experiments on crises," has achieved the lowest value of the arithmetic mean, with a value of $M = 1.56$ and this mean represents a low level. The values of the arithmetic mean for the items of the preparedness and prevention stage vary between these two values are the arithmetic averages. The reason for this is due to the Federation's inability to provide the material and human requirements of plans and programs developed by specialists to confront and reduce the crisis. This is consistent with the study of Rakha (2019), which points to the need for the availability of material and human capabilities to prepare for the crisis.

Table 5. Results of the items of the preparedness and prevention stage domain

No.	Preparedness and prevention stage	M	SD	Level	Rank
	Items				
1	The scenarios developed by the Federation are compatible with the nature of crises	2.25	1.13	Low	2
2	The Federation adopts constantly developing plans related to crisis management	1.88	1.09	Low	4
3	The Federation shares information about potential crises with all employees	2.19	1.28	Low	3
4	The Federation develops preventive guidelines for crises	2.81	1.47	Medium	1
5	The Federation conducts virtual practical experiments on crises	1.56	0.96	Low	5
Total score of the preparedness and prevention stage		2.14	1.00	Low	

Classification of arithmetic mean values: Low (1.00-2.33), Medium (2.34-3.67) and High (3.68-5.00).

As for Table 6, it shows the values of the arithmetic means, standard deviations, and estimated levels for the responses of the study participants to the items of the damage containment stage domain.

Table 6. Results of the items of the damage containment stage domain

No.	Damage containment stage	M	SD	Level	Rank
	Items				
1	The Federation encourages employees to treat risks as opportunities for action and improvement	1.81	0.83	Low	5
2	The Federation provides easy access to information of interest to all parties	1.94	1.06	Low	4
3	The Federation handles crises through work teams	2.38	1.31	Low	1
4	The Federation has a leadership style that encourages teamwork	2.37	1.20	Medium	2
5	The Federation is characterized by organized thinking and the ability to take initiative	2.00	1.03	Medium	3
Total score of the damage containment stage		2.10	0.91	Low	

Note: Classification of arithmetic mean values: Low (1.00-2.33; Medium (2.34-3.67); High (3.68-5.00).

By reviewing the arithmetic mean values of the total score for the stage, it is found out that it is $M = 2.10$, thus achieving a low level according to the classification scale used. As for item 3 which states: “The Federation handles crises through work teams”, it has achieved the highest value among the arithmetic means, with a value of $M = 2.38$ classified as a value at a low level Low, while item 1, which states “The Federation encourages employees to treat risks as opportunities for action and improvement,” has achieved the lowest value of the arithmetic mean, with a value of $M = 1.81$ and this mean represents a low level. The values of the arithmetic means for the items of the damage containment stage vary between these two values are the arithmetic averages. The reason for this is due to the Federation's lack of prior scenarios for dealing with crises as they occur.

As for the items of the recovery stage domain, Table 7 shows the values of the arithmetic means, standard deviations, and estimated level for the responses of the study participants.

Table 7. Results of the items of the recovery stage domain

No.	Recovery Stage	M	SD	Level	Rank
	<u>Items</u>				
1	The Federation defines the requirements for restoring activity during the crisis	2.13	0.96	Low	3
2	The Federation has alternative plans to deal with crises to ensure business continuity	2.25	1.06	Low	1
3	The human capabilities in the Federation are characterized by the highest degree of readiness	2.00	1.21	Low	4
4	The Federation is flexible enough to work during a crisis	2.19	0.98	Low	2
5	The Federation holds remote workshops to restore and continuity of activity	1.56	0.81	Low	5
	Total score of the recovery stage	2.03	0.84	Low	

Note: Classification of arithmetic mean values: Low (1.00-2.33); Medium (2.34-3.67); High (3.68-5.00).

Table 7 shows that the arithmetic mean values of the total score for the stage is $M = 2.03$, thus achieving a low level according to the classification scale used. It is noted that item 2, which states: “The Federation has alternative plans to deal with crises to ensure business continuity” has achieved the highest value among the arithmetic means, with a value of $M = 2.25$ and this value is classified as a value at a low level, while item 5 which states: “The Federation holds remote workshops to restore and continuity of activity,” has achieved the lowest value of the arithmetic mean, with a value of $M =$

1.56 and this mean value represents a low level. The values of the arithmetic means for the items of the recovery stage vary between these two values are the arithmetic averages. The reason for this is due to the Federation's inability to provide innovative solutions and try to control the crisis and resume activity. This is not in line with the study of (Al-Sisi, 2020), which emphasizes the ability of those in charge of the administrative process to calm down and address the crisis.

About the final stage domain (the learning stage domain), Table 8 shows the values of the arithmetic means, standard deviations, and estimated level for the responses of the study participants

Table 8. Results of the items of the learning stage domain

No.	Learning Stage Domain	M	SD	Level	Rank
	Items				
1	The Federation benefits from previous crisis management strategies	1.69	0.60	Low	4
2	The Federation evaluates previous plans to deal with crises	1.75	0.77	Low	3
3	The Federation is keen to classify the results of the crisis	1.88	0.89	Low	1
4	The Federation holds subsequent training courses to benefit from previous lessons in crisis management	1.25	0.45	Low	5
5	The Federation benefits from other similar experiences working in the same sector	1.86	1.02	Low	2
	Total score of the learning stage	1.69	0.60	Low	

Note: Classification of arithmetic mean values: Low (1.00-2.33); Medium (2.34-3.67); High (3.68-5.00).

By reviewing the arithmetic mean values of the total score for the stage, it is found out that it is $M = 1.69$, thus achieving a low level according to the classification scale used. The item 3 which states: "The Federation is keen to classify the results of the crisis" has achieved the highest value among the arithmetic means, with a value of $M = 1.88$, and this value is classified as a value at a low level, while item 4, which states: "The Federation holds subsequent training courses to benefit from previous lessons in crisis management," has achieved the lowest value of the arithmetic mean, with a value of $M = 1.25$ and this mean represents also a low level. The values of the arithmetic means for the items of the learning stage vary between these two values are the arithmetic averages. The reason for this is attributed to the Federation's failure to exert sufficient effort to learn and draw lessons and experiences learned from any previous crises to develop its programs and plans to confront any subsequent crisis.

To answer the second research question (are there statistically significant differences at the level 0.5 or less in the effectiveness of crisis management of the Jordanian Gymnastics Federation during the COVID-19 pandemic according to the study variables of gender and job title?), the Mann-Whitney U test and the Kruskal-Wallis test were conducted. Table 9 shows the results of the Mann-Whitney test for the differences in the effectiveness of crisis management at the Jordanian Gymnastics Federation according to the gender variable, while Table 10 shows the results of the Kruskal-Wallis test for the differences in the effectiveness of crisis management at the Jordanian Gymnastics Federation according to the job title variable.

Table 9. The difference in the effectiveness of crisis management according to the gender variable

Gender	Number	M	SD	Sum of Ranks	Average of Ranks	Z value	p value
Male	13	1.97	0.85	114.00	8.77	0.47	0.636
Female	3	1.91	0.51	22.00	7.33		

Table 10. The difference in the effectiveness of crisis management according to the job title variable

Job Title	Number	M	SD	Sum of Ranks	Average of Ranks	χ^2 value	p value
Referee	3	1.17	0.30	10.00	3.33	6.67	0.083
Administrative Employee	5	2.49	1.01	60.00	12.00		
Coach	4	1.71	0.65	29.00	7.25		
Player	4	2.13	0.22	37.00	9.25		

Table 9 shows that there are no statistically significant differences between males and females in the effectiveness of crisis management ($p = 0.636$). From table 10, we see that there are no statistically significant differences in the effectiveness of crisis management according to the job title variable ($p = 0.083$). So, both tables (9 and 10), indicate that there are no statistically significant differences for the variables of gender and job title, and this is because all study participants of different gender and job title are subject to the same administrative and management processes.

4. CONCLUSIONS

In light of the aforesaid discussion, the results show the lack of plans based on scientific foundations to manage the crisis at the Jordanian Gymnastics Federation, to manage procedures to discover early warning signals of the crisis, the shortage of human and material resources and plans

for future scenarios to confront the crisis, the weakness in innovative solutions to restore activity after the crisis at the Jordanian Gymnastics Federation, and the lack of plans to assess the effects of crises and benefit from them later. It is concluded that there are no statistically significant differences in the effectiveness of crisis management at the Jordanian Gymnastics Federation based on the variables of gender and job title.

5. LIMITATIONS

The present study is not without limitations. The first limitation is the study period from 7 December 2021 to 15 January 2022. The second limitation is the number of study sample (16 participants) which is limited only to the administrative body, referees, coaches, current and former players working at the Jordanian Gymnastics Federation. Since the instruments used in the study are prepared by researchers, the generalization of the results depends on the nature of the study instruments and their psychometric properties of validity and reliability.

6. RECOMMENDATIONS

In light of the results of the study, several recommendations were made, such as, the necessity of providing a crisis management strategy for the Jordanian Gymnastics Federation based on scientific foundations by specialists in the field of crisis management, the need of providing trained and qualified human cadres to deal with crises, harnessing all the financial capabilities available to confront crises, the regular provision of courses and training programs in the field of crisis management periodically for all employees of the Jordanian Gymnastics Federation and conducting similar field studies in sports federations in Jordan.

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All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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