

# Crisis Management Indicators and Employee Performance in the COVID-19 Scenario in the Sultanate of Oman

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## Abstract

The COVID-19 outbreak has resulted in major changes to how various enterprises, including public institutions operate, altering the daily tasks and activities of personnel. The main purpose of this study was to investigate the effect of crisis management strategies on employee performance in Ministry of education quality department employees in Sultanate of Oman. These crisis management indicators are three in number (crisis signal detection, crisis preparation, and crisis containment) and serve as the independent variables for this study, while the dependent variable is employee performance. To meet the research objectives of this study, the researcher adopted quantitative method using the deductive approach and positivist philosophy in a cross-sectional time horizon and causal research design. A self-administered survey using a simple random sampling was conducted on employees, specifically supervisors, managers and other executives in all the branches of the quality department in Ministry of Education. This survey yielded 103 usable responses after coding and screening of the primary data. Correlation and multiple regression analyses were conducted to test the research hypotheses. The results showed that crisis signal detection, crisis preparation, and crisis containment were positively and significantly correlated with employee performance. By introducing an all-inclusive conceptual model of employee performance, this study builds on earlier research on the topic and makes significant contributions to the study of organisational behavior.

**Keywords:** Crisis, Crisis Management, Employee Performance, Individual Work Performance, Ministry of Education, COVID-19

## Introduction

Bah and Fang (2015) asserted that high productivity in an organization is dependent on the performance of employees. Essentially, the success of any business is influenced by the employee performance of tasks towards realizing the corporate goals (Bundy et al., 2016). Organizations that have the capacity to comprehend the effect of employees' performance are better placed to manage their output (Alariki & Al-Abed, 2021). Fundamentally, productivity comes with a ripple effect in a workplace setting, whereby consistent

productivity and corporate culture of crisis management set precedence for other employees (Alariki & Al-Abed, 2021).

Studies conducted by during COVID-19 concluded that the employee performance of government employees in Oman is reduced during the pandemic (Saadouli & Al-Khanbashi, 2021; Sulaiman et al., 2020). There is no official data from Ministry of Education on employee performance during COVID-19 but it expects that like other government employees the performance is also reduced. Because of no official data on employee performance the first objective of this study will be to measure the level of employee performance of quality department worker in ministry of education during COVID-19 pandemic using subjective data from questionnaire.

Employees are most important resource in any organization. This mean organization performance depends on employee performance. The World Economic Forum states that performance issue is most common problem during crisis and the result depend on crisis management (World Economic Forum, 2013). UNESCO statistic show that 94% of students in the world affect by covid-19 thus COVID-19 crisis has cause big challenge for education ministry in Oman (Osman, 2020). One important part of this problem is how to maintain quality in Oman education ministry because of COVID-19 challenge. To solve this challenge research is needed to sustain employee performance during this COVID-19 crisis (Narayanamurthy & Tortorella, 2021). Hence, this study will investigate effect of crisis management strategies on employee performance in Ministry of education quality department employees in Sultanate of Oman.

Moreover, much of the previous studies on crisis management and employee performance during COVID-19 have been carried out in the context of developed countries with more attention placed on countries such as the United States of America, the United Kingdom, Japan, Germany, as well as France. Thus, it would be of great interest to carry out a research in these area in the case of a developing nation such as Oman.

This study investigates the effect of crisis management on employee performance during the COVID-19 scenario. The context is the quality department of the Ministry of Education in Oman. The following are the specific objectives

- To evaluate the effect of crisis signal detection on employee performance in Quality department of Ministry of Education Oman
- To analyze the effect of crisis preparation on employee performance in Quality department of Ministry of Education Oman
- To assess the effect of crisis containment on employee performance in Quality department of Ministry of Education Oman

## **Literature Review, Conceptual Framework and Hypotheses**

### *Employee Performance*

Four out of ten respondents thought the pandemic would diminish cross-functional communication, and 36% of respondents were worried about how distant work will effect their work-life balance, according to (Caputo and Hyland, 2020). A sample of 256 employees, the majority of whom worked for American businesses, participated in the focus group. The positive impact is supported by HSBC's (2017) finding that virtual labour is more likely to increase employee productivity than monetary benefits. Additionally,

studies have shown that businesses that provide virtual work options for employees help them feel more motivated, which results in a more productive workforce (Stevens, 2019). Graves and Karabayeva (2020) claim that virtual work gives employees access, more time available because they don't have to commute, and flexibility in their work.

In an effort to understand and investigate the phenomenon of individual or employee performance in connection to many antecedents, numerous empirical studies have been conducted. Research on employee performance has been done for a long time in a number of contexts, fields, and cultures with the aim of understanding the mindsets, concepts, and resources that promote performance (Atatsi et al., 2019). While there are many ways to define work performance, one that is often used is the Campbell (1990) model. Campbell defined job performance as the assortment of character traits and actions that support an organization's ability to accomplish its goals. The word "employee performance" is used to describe a wide range of work-related behaviours that demonstrate how the job is being done. It might also cover broader subcategories of behaviour. The predicted value of a person's numerous cumulative behaviours over a given length of time to an organisation, where a person may engage in diverse sets of behaviours that have a favourable or negative impact on organisational effectiveness (Motowidlo, 2003).

#### *Crisis Management Indicators*

The study conducted by Mitroff (1988), which drew on the literature on emergency preparedness, proposed a five-phase holistic model for crisis management. Research researchers have adopted and frequently use this model. Crisis signal detection, crisis planning, crisis containment, crisis recovery, and crisis learning are the five stages of the crisis management model. Hensgen et al (2003) added to Mitroff's (1988) five-stage model of crisis management by incorporating the fundamentals of chaos and stress and paying more attention to the crisis signal detection stage of the model. The authors hold that the crisis signal phase of the five-stage model for crisis management is frequently disregarded or receives only minimal attention, hence limiting the overall crisis management intervention. This five-staged model of crisis management model of Mitroff (1988) has been successfully applied to different studies, example is the study of Chowdhury and Quaddus (2016) in the apparel industry of Bangladesh via a quantitative research method by means of a self-administered structured type questionnaire directly to the research target population which was made up of supply chain managers in the apparel industry. Resilience, which was characterised in their study as the optimal crisis management strategy for supply chains, was conceptualised as the aspects of the crisis management model developed by Mitroff in 1988, which Chowdhury and Quaddus (2016) used to measure resilience. Their study's findings support the importance of identifying crisis signals and preparing for them as well as managing them and recovering from them. The study's results also revealed that the association between supply chain orientation, an independent variable, and crisis management, which was defined as supply chain resilience, was totally mediated by supply chain risk management culture, a mediating variable (preparation, containment, recovery and learning).

Crisis management, according to Yu, et al (2005)'s study, should include crisis prevention, crisis containment, and crisis recovery. The four interconnected components of crisis management, according to Coombs (2015), are prevention, planning, response, and

revision. These elements are included in the widely used three-stage strategy, which divides crisis management into three stages. There are three phases: pre-crisis (prevention and preparedness), crisis (reaction), and post-crisis (learning and revision). Crisis management, according to Coombs & Laufer (2018), is divided into three phases: the pre-crisis phase (prevention and preparedness), the crisis period (reaction), and the post-crisis phase (learning and revision). Crisis management can be divided into five categories, according to Aljuhmani & Emeagwali (2017): 1) Crisis detection; 2) Crisis planning; 3) Crisis containment; 4) Crisis recovery; and 5) Crisis learning.

#### *Conceptual Framework and Hypotheses*

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. The conceptual framework (Figure 1) for this study comprise three independent variables (crisis preparation, crisis containment, and crisis recovery) and one dependent variable (employee performance).

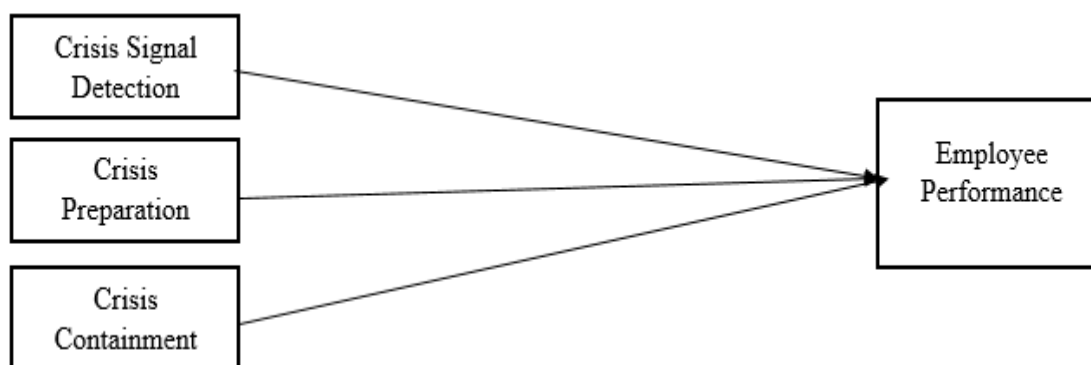


Figure 1: Conceptual Framework

There are three hypotheses in this study, and they are as follows

H1: There is a positive significant effect of crisis preparation on employee performance in Quality department of Ministry of Education Oman

H2: There is a positive significant effect of crisis containment on employee performance in Quality department of Ministry of Education Oman

H3: There is a positive significant effect of crisis recovery on employee performance in Quality department of Ministry of Education Oman

#### **Methods**

Due to the researcher's independence from the phenomenon being examined and the use of a quantitative method via a self-administered type structured questionnaire, the positivist research philosophy is utilised in the current study using a deductive research approach and survey strategy in a cross-sectional time horizon. Because the current study examines the influence and/or interactions of the independent factors (crisis preparedness, crisis containment, and crisis recovery) and dependent variable, it uses an explanatory research design (employee performance). In terms of the kinds of primary data collected and the inferential statistical analysis methods used, it is similarly quantitative in nature. In this study, the unit of analysis is at the individual level, hence the unit of analysis of this research is all level of departmental staff at the quality department in the ministry of

education in Oman. The current study looks into how employee performance in the quality division of the Ministry of Education in Oman is affected by crisis planning, crisis containment, and crisis recovery. The responders are therefore made up of workers and the primary targets are managers, supervisors, and middle to higher level employees of the quality department of the ministry of Education from all the offices in all the states governorates in the Sultanate of Oman. They make up a total of 129.

Using the MS Excel function, a random number generator was utilised to generate random samples for the simple random sampling, and these samples were then taken at random from the sampling frame. A total of 107 samples were chosen, 10 more than the sample size (10 + 97) were distributed to account for any non-response, incomplete, or unusable questionnaires.

The Table 1 details how the research constructs have been operationalized in the present research survey questionnaire

Table 1  
*Operationalization of the research constructs*

Constructs	Dimensions	Operational items/indicators	Scale	References
<b>Section A</b>				
Demography	Gender		Nominal	
	Age			
	Highest Academic Qualification			
<b>Section B</b>				
Crisis management	Crisis signal detection		5-Point Likert	Aljuhmani and Emeagwali (2017)
	Crisis preparation			
	Crisis containment			
<b>Section C</b>				
Employee Performance	Task performance		5-Point Likert	Koopman et al. (2013)

The Statistical Package for Social Sciences (SPSS) version 21.0 was utilised for the current study to make it easier to manage the research's primary data and descriptive statistics; as well as for the testing of the research hypotheses.

## Results

The Table 2 and the Figure 2 illustrates the responses of the participants to the questions that asked them to indicate their gender. From the gender indicated it shows that there are more males than females that took part of the survey because out of a total number of 103 participants 74% were males and 26% were females.

Table 2

### Gender

Categories	Occurrence	Percentage (%)
Male	76	74 %
Female	27	26 %
Total	103	100 %

The above statistics from Table 2 can be better appreciated in a pie chart shown in Fig. 2 below.

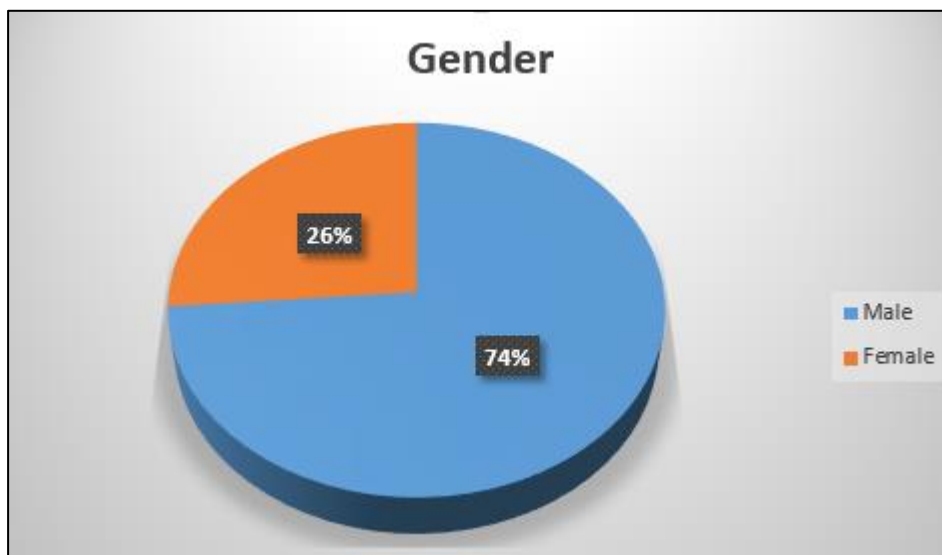


Figure 2: Gender

## Descriptive Statistics of Research Variables

Descriptive statistics was computed to evaluate the level of every variable. The Likert scale used for this section was 5, with 1 being “strongly disagree” and 5 “strongly disagree”. Thus, any average of above 2.5 was considered to be good as this indicated the level of the respondents’ agreement to those statements representing the variables tested. Results from the descriptive analysis are as shown in the Table 3 below:

Table 3

*Descriptive Statistics of Research Variables (Mean and Standard Deviation)*

	N	Mean	Std. Deviation
Crisis signal detection	103	3.5646	.55730
Crisis preparation	103	3.5253	.57217
Crisis containment	103	3.6203	.71032
Task performance	103	3.5190	.60488
Contextual performance	103	3.4051	.60820
Counter productive work behaviour	103	3.1993	.77710

*Testing for Correlations and Multiple Regression*

The Table 4 is a bivariate Pearson's correlation analysis. The Significant (p) value is 0.002 which is less than 0.05 hence the two tailed test is significant. A correlation coefficient of between 0.5 – 1.0 (Table 4) is considered strong/large. The Pearson's correlation coefficient (r) equals to 0.612 which shows that a strong/large positive correlation exists between crisis signal detection and employee performance. Therefore, the null hypothesis ( $H_0$ ) is rejected. Thus, supporting the Hypothesis 1 ( $H_1$ ). In summary, as the level of the crisis signal detection increases so does the performance of employee increase in the quality department of the ministry of education in Oman.

Table 4

*Correlations: crisis signal detection \* employee performance*

		Crisis signal detection	Employee performance
Crisis signal detection	Correlation Coefficient	1	.612**
	Sig. (2-tailed)		.002
	N	103	103
Employee performance	Correlation Coefficient	.612**	1
	Sig. (2-tailed)	.002	
	N	103	103

\*\*Correlation is significant at the 0.05 level (2-tailed)

The Table 5 is a bivariate Pearson's correlation analysis. The Significant (p) value is 0.011 which is less than 0.05 hence the two tailed test is significant. A correlation coefficient of between 0.5 – 1.0 (Table 5) is considered strong/large. The Pearson's correlation coefficient (r) equals to 0.581 which shows that a strong/large positive correlation exists between crisis preparation and employee performance. Therefore, the null hypothesis ( $H_0$ ) is rejected. Thus, supporting the Hypothesis 2 ( $H_2$ ). In summary, as the level of the crisis preparation increases so does the performance of employee increase in the quality department of the ministry of education in Oman.

Table 5

*Correlations: crisis preparation \* employee performance*

		Crisis containment	Employee performance
Crisis preparation	Correlation Coefficient	1	.581**
	Sig. (2-tailed)		.011
	N	103	103
Employee performance	Correlation Coefficient	.581**	1
	Sig. (2-tailed)	.011	
	N	103	103

\*\*Correlation is significant at the 0.05 level (2-tailed)

The Table 6 is a bivariate Pearson's correlation analysis. The Significant (p) value is 0.000 which is less than 0.05 hence the two tailed test is significant. A correlation coefficient of between 0.5 – 1.0 (Table 6) is considered strong/large. The Pearson's correlation coefficient (r) equals to 0.581 which shows that a strong/large positive correlation exists between crisis containment and employee performance. Therefore, the null hypothesis (H<sub>0</sub>) is rejected. Thus, supporting the Hypothesis 3 (H<sub>3</sub>). In summary, as the level of the crisis containment increases so does the performance of employee increase in the quality department of the ministry of education in Oman.

Table 6

*Correlations: crisis containment \* employee performance*

		Crisis containment	Employee performance
Crisis containment	Correlation Coefficient	1	.501**
	Sig. (2-tailed)		.000
	N	103	103
Employee performance	Correlation Coefficient	.501**	1
	Sig. (2-tailed)	.000	
	N	103	103

\*\*Correlation is significant at the 0.05 level (2-tailed)

Table 4.18

*Coefficients*

Looking at the p-value of the regression for each predictor (Table 7), we can see that Crisis signal detection (0.000), Crisis preparation (0.002), and Crisis containment (0.017) all



significantly contribute to the multiple model, hence supporting the three hypotheses (H1, H2, and H3).

Table 7  
*Multiple Regression (Coefficients)*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.638	.207		22.363	.000
Crisis signal detection	.071	.029	.105	2.496	.000
Crisis preparation	.103	.033	.133	3.151	.002
Crisis containment	.032	.026	.053	1.234	.017

a. Dependent Variable: Employee Performance

### Discussion

Correlation and multiple regression analyses were conducted to examine the relationship between the independent variables (crisis signal detection crisis preparation crisis containment) and the dependent variable (employee performance). As was noted from the correlation Tables, crisis signal detection crisis preparation crisis containment were positively and significantly correlated with employee performance, indicating that those with higher scores on these variables tend to have higher employee performance. Similar results were obtained in the multiple regression model.

Dramatic changes in the worldwide landscape lead to a variety of organisational and personnel efficiency concerns (Anitha, 2014). Due to the rapid pace of change and the uncertainty around it, firms and employees' desire to adapt to these changes is badly impacted (Anitha, 2014). As workers develop confidence in their capacity to accomplish organisational goals thanks to the skills they learn during the transition, the organisation will experience an increase in operating productivity (Anitha, 2014). Workers may be negatively impacted by crisis management, especially if an organisation has an unsatisfactory plan to contain the crisis (Pop, 2017). Companies with effective crisis management plans are more likely to see reduced staff turnover rates. Employee turnover has a detrimental impact on the organization's operations since no one is available to teach new hires about the company culture (Raufflet et al., 2014). Additionally, the company must spend more money to ensure that employees stay with the company by raising salaries and that there is employee cooperation. As they are unable to assure that all tasks proceed without a hitch and successfully, employees are also likely to find it challenging to buy into the organization's goals and pressures.

An organisation is not prepared to compete successfully in the technology world if it does not have a crisis management plan and the ability to tweet within ten minutes of the occurrence of a problem. According to Bundy et al (2016), operational preparation practises for crisis preparedness organisations should also be included in pre-crisis activities. These practises should include putting enough capacity in place to improve all exercises, estimating needs, and providing supporting resources, depending on the type of crisis. Setting up programmes

and guides to assist in the practise of crisis management is the second stage of pre-crisis preparatory training. Systems, according to Crandall et al (2013), include the mechanisms set up to notify organisations of crises. For instance, the organisation can monitor the problem and react accordingly with the use of early warning systems and control mechanisms. The activities and systems of the company are hampered by crises, according to (Dorry and Schulz, 2018). However, the authors pointed out that a crisis might have dangerous consequences that can undermine production, harm the company's reputation, and harm its financial position. The research did not, however, offer a concrete blueprint for the creation of the programmes and guides as a step toward effective crisis management. Thirdly, Jaques (2007) asserted that planning and drills should be considered when discussing organisational preparedness in pre-crisis activities. Previous research has also shown that training aids staff in disaster preparedness by allowing them to practise established protocols (Edwin, 2015). In essence, they receive instruction and guides to teach them how to use the systems' adaptability and agility. Jaques (2007) suggested that simulation exercises are crucial because they equip workers with the knowledge and abilities needed to handle possible crises. Additionally, crisis preparedness emphasises drills and activities that teach workers about their workplace environment and realistic simulations.

### **Conclusion**

This research developed and tested a conceptual framework. This framework improves the understanding of the impact of certain crisis management strategies dimensions acting as independent variables (crisis signal detection, crisis preparation and crisis containment) on employee performance. As a result, the propositions associated with the research findings have important theoretical and practical implications to researchers and practitioners; including policy makers.

This investigation broadens the scope of prior research by focusing on a larger range of performance outcomes (task performance, contextual performance, counterproductive work behavior, creativity, and safety performance). This study advances prior work on the subject and significantly advances the understanding of organisational behaviour and firm success by presenting an all-inclusive conceptual model of employee performance. Thanks to this conceptual paradigm, the impact of crisis management strategies during a crisis on enhanced performance is better understood. Major theoretical and practical hypotheses provide support for the study's findings, which have implications for academics and practitioners alike. The following subsections cover both the theoretical and practical consequences of the study's findings.

Theoretically and contextually, this paper makes the following contributions: In the context of the COVID-19 crisis in the Sultanate of Oman, this study has significantly added to the body of scientific information and provided theoretical advances in terms of evaluating the influence of crisis management indicators as independent variables on employee performance. The current study is in a position to lay the critical groundwork for future effective studies in this area and to provide pertinent answers on which future researchers can build by combining crisis management indicators and employee performance in a single model. Additionally, research on crisis management appears to have received little attention from academics, particularly in terms of empirical testing, according to the literature (Bhaduri, 2019). While this article attempts to add to the existing crisis management literature, its

primary goal is to fill this gap. Additionally, although previous research on crisis management has tended to concentrate on employee performance during times of normalcy, current crisis situations, such as those in Oman and other Middle Eastern nations, have received very little attention. Employee performance has always been seen as the most important factor for diverse firms, both in normal times and during times of crisis. As a result, this study is particularly important to the literature on crisis management since it empirically examines leadership in crisis situations. This study addresses this concern by focusing on the lack of attention given to the Crisis Management Dimensions issues in the Omani Ministry of Education. Empirical research on Crisis Management Dimensions (signal detection, preparation, and containment), particularly in the public sector, has been sparse. More so, the scant research that is now accessible appears to focus on the contexts of developed countries, leaving a research gap in the developing country context, particularly in the situation of Arab countries that are currently experiencing a crisis. Even in the few studies that were conducted on the crisis in the Arab regions, the public sector's management of such a crisis was disregarded, with the majority of the studies deciding to place a greater emphasis on the economic indicators of the Arab spring. As a result, the findings from this present study have substantial implications and contribute immensely to the crisis management literature in a situation that has been largely disregarded by previous researchers, thereby building a sound theoretical platform for future research

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