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**THE ROLE OF CRISIS MANAGEMENT ON BUSINESS
CONTINUITY DURING COVID-19
THE CASE OF THE OIL SECTOR IN THE KINGDOM OF BAHRAIN**

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**THE ROLE OF CRISIS MANAGEMENT ON BUSINESS CONTINUITY DURING
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THE CASE OF THE OIL SECTOR IN THE KINGDOM OF BAHRAIN

By

Hakeem Omar Abdulla Alquaiti

ABSTRACT

This paper examines how crisis management impacts business continuity in Bahrain's oil sector. To achieve this purpose, specific objectives were established. Furthermore, the research contributes to both theoretical and empirical knowledge, addressing gaps in the literature. It introduces a critical theory and examines the role of crisis management plans in sustaining business continuity during COVID-19 in Bahrain's oil sector.

To achieve these objectives, a descriptive analytical approach was employed to describe the research variables and test hypotheses. The study utilized a structured questionnaire for primary research, targeting a research population of 4,000 male and female employees in Bahrain's oil sector.

A pilot test assessed the reliability of the questionnaire, ensuring the validity of its questions. Cronbach's Alpha was used to measure internal consistency, yielding an excellent reliability score of 0.972. Descriptive statistics were applied to examine key study components. Various statistical tests, including bivariate correlation, ANOVA, regression, and t-tests, were conducted to explore the role of crisis management in business continuity within Bahrain's oil sector during the COVID-19 pandemic.

The findings revealed mean values in the case study as follows: IMP ($M=6.1467$, $SD=0.130$), DRP ($M=6.1497$, $SD=0.130$), and BCM ($M=6.2480$, $SD=0.130$). Additionally, the results indicated that the p-values for factor analysis, bivariate correlation, and regression were statistically significant ($\text{Sig.} = 0.000$, $p < 0.05$). Consequently, all null hypotheses were rejected, and alternative hypotheses were accepted. These findings confirm that crisis management has a positive impact on business continuity.

The value and originality of this study lie in its pioneering exploration of crisis management within Bahrain and the GCC, providing empirical evidence specific to Bahrain's oil sector.

Keywords: Crisis Management, Business continuity, Covid-19, Kingdom of Bahrain, Crisis, oil sector, Energies, Emergency management plan, Incident management plan, Disaster Recovery Plan.

1. INTRODUCTION

Crises have become a common occurrence for organisations in the modern era due to global power conflicts—whether political, economic, or technological—and the rapid development of information systems. These crises impact national economies and, consequently, organisations across sectors. Organisations capable of adapting to global crises demonstrate resilience, whereas those that fail to adapt experience periodic or sporadic disruptions, often leading to severe financial losses. In recent decades, these crises have caused significant economic instability, affecting hundreds of organisations worldwide (Fajri & Mawadati, 2018).

Since late 2019 and early 2020, the world has witnessed an unprecedented pandemic—COVID-19. Declared a global health emergency by the World Health Organisation (WHO, 2022), the virus first emerged in Wuhan, China, and raised concerns about its rapid spread across countries, especially in the absence of a cure or vaccine. The pandemic caused widespread human and economic losses, leading to the closure of borders, suspension of international flights, and significant disruptions in global economic activity. Success in preventing and managing crises depends on several key pillars, including access to accurate and timely information. Crisis information enables organisations to predict, plan for, and respond effectively to crises while minimizing their impact. Developing robust crisis management plans requires forecasting potential crises, analysing their dimensions, and implementing coordinated strategies to address them. Effective crisis management also involves drawing lessons from past events to enhance preparedness for future challenges (Bundy, 2017).

The primary goal of crisis management is to prevent or mitigate the impact of crises. As defined by the Administrative Encyclopedia, crisis management involves "preserving an organisation's assets, protecting its personnel, and ensuring its ability to generate revenue while mitigating risks" (JadAllah, 2010). Effective crisis management enables organisations to detect potential crises early, prepare adequately, and transform challenges into opportunities for growth and improvement (Fischbacher-Smith, 2017). Crisis management is a critical area of focus for the oil sector. One of the essential activities of any organisation, aiming to identify and mitigate operational risks before they occur (Jin et al., 2014).

1.1 Research Problem

During the COVID-19 pandemic, organisations and sectors worldwide, including Bahrain's oil sector, were profoundly affected. The oil sector struggled to understand and predict the complexities of the pandemic, primarily due to insufficient crisis management strategies tailored to such unprecedented circumstances. Unlike traditional crises, such as natural disasters or financial downturns, which typically unfold over extended periods and specific locations, the COVID-19 pandemic emerged suddenly and without precedent. This lack of preparedness highlighted the critical need for comprehensive crisis management strategies (Cortez & Johnston, 2020).

1.2 Research Question

The overall research question is: What is the role of crisis management in ensuring business continuity within the oil sector in the Kingdom of Bahrain

1.3 Significance

The significance of this study stems from its investigation into diverse dimensions of crisis management and their connection to maintaining business continuity in the oil sector in Bahrain. Furthermore, this study contributes to both theoretical and empirical knowledge. Theoretically, it addresses gaps in the literature and provides a critical framework to analyze the role of crisis management during COVID-19 pandemic in Bahrain's oil sector. Empirically, while similar research has been conducted in other countries and industries, this study offers a unique contribution as the first of its kind in Bahrain, specifically targeting the oil sector.

2. LITERATURE REVIEW

2.1 Crisis Management (CM)

Lee and Kim (2020) define crisis management as the process of anticipating, addressing, and recovering from unexpected, disruptive incidents that threaten an organisation's operations, reputation, or stakeholder confidence. The role of Crisis management are to minimize the adverse impact of a crisis and to ensure the organisation's survival (Ponomarov & Holcomb, 2009). Accordingly, Klier and Ihl (2018) underscored the critical role of crisis management in ensuring an organisation's long-term survival and prosperity. Finally, Opeyemi (2019) noted that an organisation's long-term success, reputation, and viability heavily depend on robust crisis management practices.

2.2 Pre-crisis /During crisis/ post-crisis

2.2.1 Pre-crisis period: Farooq et al. (2013) assert that the primary objective of pre-crisis management is the proactive implementation of measures to address external or internal organisational issues, focusing on situational recovery.

2.2.2 During crisis period: the during-crisis phase requires immediate action to mitigate the adverse impacts on organisational management (Boubaker & Sghaier, 2016; Ben Hassen, 2022).

2.2.3 Post-crisis period: : According to Gabbori et al. (2021), crises and their responsive plans often culminate in outcomes that shape future business continuity management (BCM) strategies or further crisis management procedures. Abdulla and Naser (2021) suggest that the Bahrain government should prescribe comprehensive measures for its oil industry, including exploring alternative resources and enhancing resource efficiency.

2.3 Emergency Management Plan (EMP)

As noted by Dutta and Emery (2016), an Emergency Management Plan (EMP) is a structured course of action designed to prepare for and mitigate the potential damages caused by unforeseen events. These plans serve as crucial tools that enable management companies to assess various types of risks and implement specific measures to mitigate or eliminate them effectively. Additionally, organisations must conduct a versatile impact analysis, which helps them comprehend the root causes of potential failures and prepare for future contingencies (A.Razaq, M. (2022)). EMP plays a pivotal role in integrating crisis management techniques into business continuity plans, ensuring a structured and positive response to disruptive events (Zainal et al., 2008; Marzooq et al., 2019).

2.4 Incident Management Plan (IMP)

According to Garaibi, A. (2021)), the IMP is instrumental in managing incidents to minimize their impact and provide a structured approach for returning to regular business activities. This structured approach of IMP not only helps in resolving immediate issues but also strengthens the organisation's ability to handle future disruptions efficiently and mitigate the impact of such crises. Yan and Xia (2021) confirmed that the IMP is to ensure that a company can respond to

incidents promptly and effectively. By doing so, the plan minimizes the impact of disruptive events while safeguarding the continuity of business operations. This comprehensive approach not only addresses immediate risks but also strengthens the organisation's overall resilience against future challenges.

2.5 Disaster Recovery Plan (DRP)

Simonovic (2015) noted down that a company's strategy for recovering from a catastrophe, such as a natural disaster, a cyberattack, or any other significant event that disrupts operations, is laid out in a document known as a Disaster Recovery Plan ensuring the continuity of their operations and safeguarding essential data (Al Kurdi, 2021; Temizel et al., 2019). according to (Meshkati & Tabibzadeh, 2016; Al-Daihani et al., 2019) , he affirmed that the DRP to assist organisations in resolving data issues and recovering system functions, allowing them to restore operations efficiently after a crisis

2.6 Covid-19 and its impact on Businesses

COVID-19, first identified in December 2019 in Wuhan, China, has had a profound global impact. Declared a pandemic by the WHO in March 2020, the virus has caused millions of infections and countless deaths, resulting in unprecedented economic disruption (Adedoyin et al., 2021). Governments implemented strict measures, such as quarantines and travel restrictions, forcing many businesses to shut down or scale back operations, significantly impacting the global economy (Alves, J. C., Lok, T. C., Luo, Y., & Hao, W. (2020). Governments worldwide provided financial assistance and implemented furlough programs to support businesses and employees, ensuring economic stability. The pandemic also accelerated digital transformations, with lasting implications for business operations and strategies (Farooq et al., 2020). Organisations that adapt to these changes will be better equipped for future crises. The crisis underscored the importance of disaster recovery plans, enabling businesses to minimize disruptions and adapt quickly to unforeseen events (Adedoyin et al., 2021; Sun et al., 2019).

2.7 Business Continuity during the period of Covid-19 pandemic

According to Shaded, M. (2022) businesses have increasingly relied on innovative technologies, such as remote work solutions and online communication platforms, to sustain

operations during the crisis. Additionally, organisations have adopted novel approaches to supply chain management and inventory control to mitigate the effects of disruptions. Consequently, specific procedures and practices have been developed to enhance business continuity (Almuslamani & Daud, 2022; Hamdi & Sbia, 2013). In large business entities, such as those involved in oil, energy, fuel, and mechanical operations, the necessity of robust Business Continuity Management (BCM) strategies has been underscored. These strategies are often implemented in compliance with universally recognized legislation to ensure operational resilience and sustainability.

3. RESEARCH METHODOLOGY

3.1 Philosophy of the Research

In this study, positivism was selected as the guiding philosophy. This choice aligns with the structured nature of the research, which employs questionnaire surveys to produce reliable and credible results. Positivism, as described by Antwi and Hamza (2015), emphasizes observable and measurable realities grounded in universal laws and phenomena. Its structured approach minimizes subjective bias, enabling the researcher to systematically evaluate the effectiveness of crisis management in Bahrain's oil sector. The reliance on established methodologies and quantitative data further enhances the precision and reliability of this research.

3.2 Design of the Research

This study employs a descriptive research design to meet the defined goals and objectives. According to Kumar (2021), a descriptive design is particularly appropriate for this type of research because it effectively evaluates pertinent issues and topics. Furthermore, Rahi (2017) emphasized that descriptive research is advantageous as it examines phenomena naturally, without external interference, and operates efficiently within time constraints. To achieve reliable results, this study employs a survey method within the descriptive framework.

3.3 Selected Research Approach

Among the three major research approaches commonly employed in successful studies—inductive, deductive, and abductive—the deductive research approach is deemed most suitable for this study. The deductive approach is particularly appropriate because it

facilitates reasoning from general to specific, making it highly effective for quantitative study analysis. This approach allows researchers to construct theoretical frameworks and hypotheses by deducing specific concepts or issues from broader, general perspectives. As noted by Woiceshyn & Daellenbach (2018), the deductive research approach directs researchers toward drawing valid and specific conclusions. According to Ligurgo, Philippette, Fastrez, et al. (2017), this process includes evaluating the results to determine whether the hypotheses are supported or rejected based on a detailed comparison with research findings and the conclusions drawn from the literature review.

3.4 Research Strategy

A research strategy is a structured, step-by-step process that provides researchers with a clear direction and pathway for achieving accurate and reliable results. By guiding researchers to achieve their desired goals and objectives, a robust research strategy enables the effective articulation of the research rationale (Basias & Pollalis, 2018). A quantitative research strategy provides a focused and systematic method for achieving research objectives. It is widely favored by scholars due to its reliability and its application of statistical tools, which allow researchers to generalise findings effectively (McCusker & Gunaydin, 2015).

3.5 Data Collection

The data collection procedure is a vital aspect of research methodology, as the accuracy and reliability of research findings are heavily dependent on the methods used for collecting data. There are two types of data collection methods: primary and secondary data collection. The primary method is particularly valuable as it enables researchers to address specific issues directly related to the research problem. While the process can be time-consuming, it yields highly accurate and reliable insights (Amaya et al., 2015).

3.6 Sampling and Data Collection

The questionnaire is distributed using a random sampling technique which is widely regarded as the most effective form of probability sampling (Rahi, 2017), ensuring that every individual has an equal chance of selection. The structured format of the questionnaire ensures clarity and consistency, enabling efficient collection of data and facilitating accurate analysis. This research utilizes primary collection data techniques, specifically employing a structured questionnaire based on a 7-point Likert Scale and an online survey.

3.7 Target Population & Sample Size

The target population for this research comprises employees from Bahrain's oil sector across all three levels of management: top-level administration, middle-level administration, and lower-level administration. The total workforce in Bahrain's oil sector is approximately 4,000 employees across various management levels. For this study, a random sample of 350 employees, including both male and female participants, has been determined using the formula below.

$$N = 1.962 (0.5) (1 - 0.5) / (0.05)^2$$

$$= 3.8416 (0.5) (1 - 0.5) / (0.0025)$$

$$= 1.9208 (0.5) / (0.0025)$$

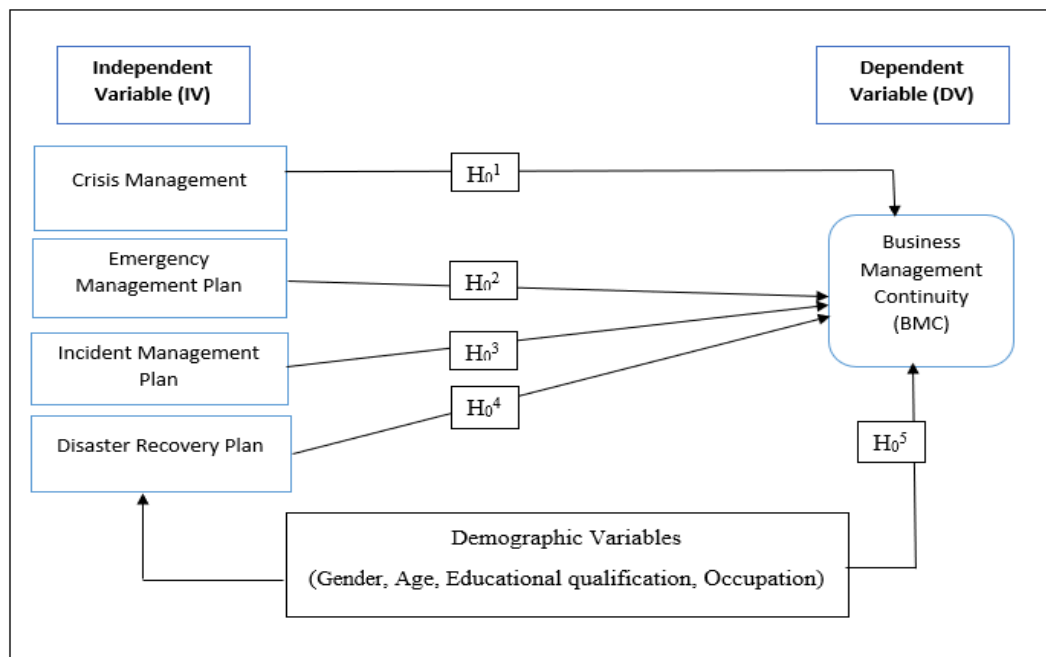
$$= 0.9604 / 0.0025$$

$$N = 384$$

3.8 Data Analysis Techniques

This study employed an online survey method to collect data from employees in Bahrain's oil sector. The questionnaire consisted of closed-ended questions designed to elicit specific responses. SPSS (Statistical Package for the Social Sciences) was used to analyse the collated data, a widely used tool for statistical analysis. SPSS is known for its capability to handle complex datasets effectively, enabling researchers to determine relationships between dependent and independent variables with substantial accuracy and efficiency. As noted by Mizumoto and Plonsky (2016), SPSS is highly regarded for delivering fast and reliable results, making it a preferred choice for statistical analysis.

3.9 Conceptual Framework



The current research is grounded in a theoretical framework that defines the objective of the study. It aims to examine the role of crisis management, with its respective dimension of (business continuity).

4. RESEARCH FINDINGS AND DISCUSSION

4.1 pearson Correlation Test.

The researcher uses Pearson Correlation test to analyse the formulated hypothesis. The correlation identifies the strength and direction of relationships between IV and DV of the study. The significance and strength of relationship was also being measured. The results show the significance level is .05 ($P < .01$) for all the values indicating a significant positive correlation among all the variables of the study.

Correlations					
		EMP	IMP	DRP	BCM
EM P	Pearson Correlation	1			
	Sig. (2-tailed)				
	N				
	Pearson Correlation	.870**	1		
	Sig. (2-tailed)	.000			

IM P	N	350	350		
DR P	Pearson Correlation	.826**	.830**	1	
	Sig. (2-tailed)	.000	.000		
	N	350	350		
BC M	Pearson Correlation	.781**	.794**	.766**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	350	350	350	
**. Correlation is significant at the 0.01 level (2-tailed).					

	Levene Statistic	df1	df2	Sig.
Gender	4.269	15	333	.000
Age	1.535	15	333	.091
Qualificatio n	3.839	15	333	.000
Occupation	5.448	15	333	.000



The Homogeneity of Variances, assessed through Levene's test, was evaluated for four factors: Gender, Age, Qualification, and Occupation. The Levene Statistic, which measures the equality of variances across groups, indicated significant variability for all aspects except Age. Gender, Qualification, and Occupation displayed statistically significant differences in variances ($p < .001$), suggesting that the assumption of equal variances might not hold for these variables.

while, the age showed relatively consistent variances across groups ($p = .091$), therefore, there is an indicator of the homogeneity assumption of variances might be reasonably met for this factor. These results could impact sub-sequent statistical analyses, and appropriate techniques, such as Welch's ANOVA for variables with unequal variances, might be considered for elements where homogeneity of variances is violated.

		Sum of Sqr	df	Mean Sqr	F	Sig.
Age	Between Groups	18.344	16	1.147	1.681	.049
	Within Groups	227.153	333	.682		
	Total	245.497	349			
Qualification	Between Groups	7.799	16	.487	2.548	.001
	Within Groups	63.690	333	.191		
	Total	71.489	349			
Occupation	Between Groups	7.076	16	.442	1.667	.051
	Within Groups	88.321	333	.265		
	Total	95.397	349			

The results of the ANOVA of studying variables of age and occupation indicated that there are statistically significant differences attribution, according the significance values, and the values reached (0.049, 0.001), respectively, while there were no differences for the other variable, and the significance value reached (0.051).

4.2 Research Hypotheses Results

Hypothesis	Results
H ₀₁ : There is no strong relationship between Crisis Management and Business Continuity during COVID-19	Rejected
H ₀₂ : There is no strong relationship between Emergency Management Plan and Business Continuity Management during COVID-19.	Rejected

H ₀₃ : There is no strong relationship between Incident Management Plan and Business Continuity Management during COVID-19.	Rejected
H ₀₄ : There is no strong relationship between Disaster Recovery Plan and Business Continuity Management during COVID-19.	Rejected
H ₀₅ : There aren't strong relationship at the level of sig ($\alpha \leq 0.01$) between the opinions of employees in the oil sector in Bahrain about the role of crisis management on business continuity during the Covid- 19 due to the following demographic variables (gender, age, educational qualification, Occupation).	Rejected

According to all previous conducted tests that have been done in this chapter, the result of the tested hypothesis showed that Crisis management has a significant positive relationship with the Business Continuity Management. Emergency management plan has a relationship with Business Continuity Management. Incident Management Plan has a relationship with Business Continuity Management. Incident Management Plan has a relationship with Business Continuity Management. Hence, all null hypotheses were rejected, and alternative hypotheses were accepted. These findings confirm that crisis management has a positive impact on business continuity.

5. CONCLUSION

In conclusion, this research has comprehensively explored the role of crisis management in ensuring business continuity within Bahrain's oil sector, with a particular focus on the challenging context of the COVID-19 pandemic. The study employed a well-structured research methodology that combined quantitative surveys and a case study approach to achieve its objectives effectively (Fischbacher-Smith, 2017). The research findings have shed light on several critical aspects. First, the study's quantitative analysis indicated that there is a positive correlation between crisis management plans, including Emergency Management, Incident Management, Disaster Recovery, and Business Continuity Management. This research indicates to the importance of the demographic's factors (demographic factors, such as gender, age, education, and occupation) to be considered in influencing the relationship between crisis management and business continuity. This underscores the need for organisations to consider

these factors when designing and implementing crisis management strategies tailored to their workforce.

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