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The Impact of Strategic Foresight on Crisis Management Effectiveness at Jordanian Private Universities

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Abstract

This study aims to explore the impact of strategic foresight on the effectiveness of crisis management in Jordanian private universities operating within the Amman Governorate. Given the increasing environmental uncertainty and the complexity of modern challenges, higher education institutions must adopt proactive and anticipatory strategies to manage crises efficiently. The research employed a descriptive-analytical methodology and used a structured questionnaire distributed to a random sample of 180 academic and administrative leaders across 10 private universities. Strategic foresight was examined through four main dimensions: environmental scanning, strategic choice, strategic integration, and scenario planning. Crisis management effectiveness was measured using three dimensions: response speed, communication and information flow, and resource mobilization. The results revealed a high level of strategic foresight implementation among the surveyed universities, particularly in scenario planning and environmental scanning. Similarly, the level of crisis management effectiveness was also high, especially in response speed. Multiple regression analysis showed a statistically significant effect of strategic foresight on crisis management effectiveness, with strategic integration and scenario planning having the strongest influence. Sub-hypotheses testing further confirmed the significant role of strategic foresight in enhancing response speed, information flow, and resource mobilization during crises. The study concludes with practical recommendations for integrating foresight tools into institutional planning, improving interdepartmental communication, and enhancing resource preparedness to ensure a more resilient and responsive academic environment.

Keywords: Strategic Foresight, Crisis Management, Scenario Planning, Private Universities, Jordan

Introduction

Crisis management is one of the fundamental pillars upon which business organizations rely to address sudden and unexpected events that may threaten their stability and performance. It is a comprehensive process aimed at anticipating potential crises and developing strategic plans to effectively manage and mitigate their negative impact on institutional operations. With the increasing environmental challenges and rapid changes, the effectiveness of crisis management now requires proactive tools and methods that enhance institutional capacity to respond efficiently. Here, strategic foresight emerges as a vital tool that helps organizations anticipate future changes, identify opportunities and challenges, and ultimately enhance their efficiency and resilience during crises. Furthermore, organizational agility plays a central role in enabling institutions to achieve a dynamic balance between exploring new possibilities and utilizing existing resources, thereby strengthening their ability to manage crises effectively.

Strategic foresight is considered one of the essential tools that enable business organizations to anticipate events and develop accurate future scenarios. This, in turn, supports them in making strategic decisions characterized by flexibility and precision. The role of strategic foresight goes beyond predicting potential risks; it also involves identifying new opportunities that contribute to the organization's sustainability. By adopting this approach, organizations can build long-term visions based on scientific and analytical foundations, giving them a competitive edge and enhancing their adaptability to ongoing challenges (Warinda et al., 2024).

Crises have become an unavoidable phenomenon in the modern business environment, making crisis management a central component of organizational continuity and effectiveness. Crisis management requires a combination of strategic planning and the ability to make quick, accurate decisions to minimize potential damage. The effectiveness of crisis management is thus a foundational pillar of business continuity. Crises—whether natural, industrial, or economic—demand a comprehensive strategic approach (Alhajahjeh & Alkshali, 2023). Oli et al. (2024) emphasized the pivotal role of prior planning and organizational preparedness in enabling institutions to reduce the negative effects of crises. Such planning enhances their ability to respond swiftly and efficiently. Organizational preparedness also necessitates early warning systems that allow organizations to predict potential threats, alongside forming well-trained teams capable of managing crises professionally.

Private universities in the Amman Governorate represent a vital component of the higher education system and face multiple challenges in a dynamic work environment that demands proactive strategies. This study aims to shed light on how Jordanian private universities employ strategic foresight as a fundamental tool to enhance the effectiveness of crisis management.

Problem Statement and Research Questions

Private universities operating in the Amman Governorate face multiple pressures that hinder their ability to achieve their academic and organizational goals. These institutions function within an educational system characterized by uncertainty and sudden changes resulting from economic, social, and political factors, in addition to emergency crises such as pandemics and natural disasters. This has heightened the need to develop tools and strategies that enhance their adaptability and effective responsiveness to such challenges. Given the difficulties facing

this sector, adopting strategic foresight has become essential for Jordanian private universities to maintain their viability, ensure their competitiveness, formulate reasonable and functional future visions, adjust work directions, and make appropriate decisions at the right time. These actions will allow the universities to seize potential opportunities or avoid risks and possible losses.

Based on the above, the main research question can be formulated as follows:
What is the effect of strategic foresight on the effectiveness of crisis management in Jordanian private universities operating in the Amman Governorate?
From this main question, the following sub-questions arise:

1. What is the level of importance of strategic foresight and its dimensions (environmental scanning, strategic options, strategic integration, and scenario planning) in Jordanian private universities operating in the Amman Governorate?
2. What is the level of importance of crisis management effectiveness and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate?
3. What is the effect of strategic foresight and its dimensions (environmental scanning, strategic options, strategic integration, and scenario planning) on the effectiveness of crisis management and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate?

Research Objectives
The main objective of this study is to examine the effect of strategic foresight and its dimensions (environmental scanning, strategic options, strategic integration, and scenario planning) on the effectiveness of crisis management and its dimensions (response speed, communication and information flow, and resource mobilization).
The sub-objectives derived from the main objective are as follows:

1. To determine the level of importance of strategic foresight and its dimensions (environmental scanning, strategic options, strategic integration, and scenario planning) in Jordanian private universities operating in the Amman Governorate.
2. To identify the level of importance of crisis management effectiveness and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate.
3. To explain the effect of strategic foresight and its dimensions (environmental scanning, strategic options, strategic integration, and scenario planning) on the effectiveness of crisis management and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate.

Strategic Foresight
The concept of strategic foresight emerged in past decades, during which a significant body of knowledge was developed on how to conduct strategic foresight activities. Scholars began examining national foresight programs as early as the 1960s, aiming to identify future technologies with the greatest potential to generate economic prosperity. However, the practical application of strategic foresight started in the 1980s. Within the business context, foresight was employed to improve the quality of long-term decision-making and support

innovation and strategic planning activities by identifying alternative pathways and generating future scenarios. Nonetheless, applying foresight still requires considerable knowledge to be implemented successfully (Heger & Rohrbeck, 2012).

Slaughter (1995, 94) defined strategic foresight in his book *Cultural Recovery in the 21st Century* as "a process that attempts to expand the boundaries of perception through four approaches: post-evaluation, early warning and guidance, proactive strategy formulation, and scenario development." Later, Slaughter (1997) described strategic foresight as "the capacity to create and maintain a high-quality, coherent, and functional forward view, and to use emerging ideas in ways that are advantageous to the organization, enabling it to detect adverse conditions, guide policy, shape strategy, and explore new markets, products, and services." It represents an integration of future-oriented foresight methods and strategic management techniques. The term *"the foresight puzzle"* was introduced to describe strategic foresight as a method for identifying opportunities and modeling change processes through the creation of alternative scenarios and visions (El Kerdini & Hooge, 2013).

Strategic foresight is also defined as "the process of devising concrete strategies to overcome the threats posed by changing and ambiguous challenges" (Kassar & Al-Saqal, 2022). According to Abdullah et al. (2024), strategic foresight refers to "the ability of organizations to foresee and understand the forces that shape the future, and to explore the opportunities and threats that may reshape the nature of business."

Dimensions of Strategic Foresight

Numerous previous studies have identified a set of dimensions through which strategic foresight can be measured and applied. In this study, the researcher adopted four key dimensions: **Environmental Scanning, Strategic Choice, Strategic Integration, and Scenario Planning**, as outlined below:

- **Environmental Scanning:** Miles et al. (2016) defined environmental scanning as "the capabilities involved in collecting and analyzing activities related to the environments surrounding organizations to identify the major forces responsible for any future change, in an effort to build future scenarios and determine the trends that organizations will follow." Bajari et al. (2024) stated that environmental scanning is the process of identifying information about the external environment of the organization. It involves monitoring, evaluating, and collecting information from both the internal and external environments. Organizations use this tool to avoid strategic surprises and to ensure their long-term sustainability.
- **Strategic Choice:** Strategic choice refers to the organizational capabilities that allow an organization to systematically interpret the business environment and mobilize its limited resources to pursue an ideal future (Ltaifa et al., 2024). Della and Portos (2023) defined strategic choice as the evaluation of strategic alternatives and the selection of the most suitable option when the organization faces a dynamic environment. It represents the best strategic decision when all members agree on the feasibility of the option in alignment with the organization's environment. This dimension comprises three main components: analyzing data collected about the future, forming a vision by stakeholders, and planning strategic initiatives to achieve the organization's goals—thus enhancing its ability to anticipate future events and increasing its learning and innovation capabilities before competitors.

- **Strategic Integration:** Strategic integration involves how managers coordinate and integrate knowledge within the organization. This process encompasses all internal and external activities (Alhajahjeh & Alkshali, 2023). Integration capabilities are also defined as “an organization's competence to access all available resources and combine them effectively to achieve its intended goals. The organization merges these capabilities to reach entrepreneurial performance and organizational excellence by leveraging the knowledge and energy of its employees, resulting in innovation and creativity” (Asmai et al., 2022).
- **Scenario Planning:** Business organizations use scenarios to develop and maintain a high-quality, coherent, and functional future vision, employing emerging insights in ways that benefit the organization. Scenario planning is regarded as a managerial development tool. It can be implemented through various means, such as workshops and brainstorming sessions, which help define the shared concepts of the management team and set the framework for inquiry. Scenario planning also serves as a communication tool during the change management process within organizations (Ltaifa et al., 2024). Bishop et al. (2007) suggested that scenario planning is a core component of foresight studies, as scenarios help create plausible stories about the future and are considered a more comprehensive activity

Effectiveness of Crisis Management

Crisis management refers to an approach that involves identifying and anticipating critical issues during activities or measures designed to resolve a crisis or to prevent events from escalating into other crises, while minimizing the disruptive effects of unavoidable crises (Al Shobaki et al., 2016). It is defined as "a proactive means of preparing the organization for worst-case scenarios, involving the identification and anticipation of crisis areas and the development of procedures or measures aimed at preventing crises or minimizing the disruption caused by them" (John & Eke, 2020). Crisis management effectiveness is also defined as “the organization’s ability to generate creative ideas and solutions through communication, establishing a common dialogue among employees, and formulating a clear strategic roadmap for dealing with the crisis—moving away from random management—by using the necessary means to reduce its negative impacts” (Brockington et al., 2006). Effective crisis management is regarded as a practical process that can be applied when organizations face crises (Harwati, 2013).

Mitroff et al. (1987) were among the first to define crisis management effectiveness as “an ongoing process that does not have a definite beginning or end. It relies on anticipating scenarios, planning for them, and being proactive in deciding whether to accept, mitigate, transfer, or terminate risks.” Similarly, Czarnecki & Strarosa (2014) described it as "the organization's ability to respond swiftly and effectively to internal and external changes through early warning systems that identify risks and provide advance information, enabling timely responses." Al- Bluwi (2016) considered crisis management effectiveness as a system focused on forecasting and studying sudden changes in organizations, analyzing their causes, and mobilizing efforts to address them by identifying feasible solutions and available options. According to Muiru (2022), it involves strategic planning and communication strategies to proactively respond, prevent crises, reduce their impact when they occur, or redirect their course, through a trained and cohesive crisis management team.

Dimensions of Crisis Management Effectiveness

Several previous studies have identified dimensions through which the effectiveness of crisis management can be measured. This study adopts three dimensions: **response speed, communication and information flow, and resource mobilization**, described as follows:

- **Response Speed:** Response speed refers to the reaction of the crisis management team in addressing a crisis through preparedness, effective planning, and rapid risk assessment both internally and externally, in order to prevent escalation (Robert & Lajtha, 2002). Crandall et al. (2013) noted that response speed represents the flexibility and quick decision-making capacity of managers and crisis managers. It is also seen as active readiness for worst-case scenarios by formulating strategies and making decisions to reduce the crisis's negative impacts on both short- and long-term operations. Haarhaus and Liening (2020) defined response speed as "the selection of the most appropriate alternative from a set of proposed options with defined criteria, under conditions of time constraints and limited resources, aiming to implement the optimal decision that aligns with the current organizational context."
- **Communication and Information Flow:** Dwiedienawati et al. (2021) stated that "communication and information flow refers to adopting a flexible and effective communication system at all stages of the crisis. Organizations become more effective when their communication systems are open." Coombs (2018) defined the crisis communication and information system as "a highly efficient information system that gathers, classifies, and securely stores information for appropriate analysis, ensuring that decision-makers can retrieve and utilize it effectively when needed."
- **Resource Mobilization:** Resource mobilization refers to equipping the organization with all necessary physical resources to address the crisis, including the use of reserves. The crisis management team defines the resource limits and understands their flexibility, organizing their movement to ensure rapid and effective deployment (Mahawi & Al-Qaisi, 2016). According to Coombs (2018), resource mobilization involves the systematic planning and organized use of all financial, informational, and human resources available to the organization to confront the crisis efficiently.

The Relationship Between Strategic Foresight and the Effectiveness of Crisis Management

Strategic foresight is considered one of the essential tools that enhance institutional capabilities to face crises and respond effectively to future challenges. Alsheyyab et al. (2024) emphasize that "strategic foresight plays a pivotal role in improving the effectiveness of crisis management and enhancing an organization's ability to respond to crises with greater flexibility. The implementation of strategic foresight dimensions has proven effective in improving preparedness and enabling proactive decision-making that mitigates the impact of crises."

Wolbers et al. (2024) argue that scenario planning is one of the core tools of strategic foresight. "It contributes to better decision-making during crises by providing clear visualizations of various potential scenarios. Strategic foresight helps organizations develop shared future visions, thereby enhancing the ability of crisis management teams to coordinate and take necessary actions in response to possible escalations."

Alhajahjeh and Alkshali (2023) also pointed out the significant impact of strategic foresight in improving crisis management effectiveness. Their study demonstrated that adopting practices such as environmental scanning, future visioning, and scenario building contributes

to faster crisis response, improved communication and information flow, and more effective resource mobilization. The study affirmed that institutions employing foresight-based strategies are better equipped to confront unexpected challenges and respond with agility and efficiency.

Badr (2023) confirmed that strategic foresight, including strategic planning, scenario development, and strategic vigilance, plays a vital role in improving organizational capacity to manage risks and minimize crisis impact. Furthermore, Naji (2022) found that strategic intelligence, with its dimensions of strategic vision, systems thinking, partnerships, and motivation, significantly contributes to enhancing crisis management effectiveness. His study, conducted in several university libraries in Egypt, revealed that institutions with high levels of strategic intelligence demonstrate greater adaptability, enabling organizational resilience and the ability to respond quickly and effectively to unexpected challenges.

In summary, strategic foresight is a key factor in strengthening organizational capacity for crisis management. It facilitates the anticipation of future challenges and the implementation of proactive measures that reduce the impact of crises and support business sustainability. Moreover, the integration of modern technologies such as cloud computing and scenario planning enhances decision-making processes and ensures effective crisis response.

Research Hypotheses

Based on the research questions and objectives, the following hypotheses were formulated:

Main Hypothesis: *H01: There is no statistically significant effect at the significance level (α ≥ 0.05) of strategic foresight and its dimensions (environmental scanning, strategic choice, strategic integration, and scenario planning) on the effectiveness of crisis management and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate.*

From this main hypothesis, the following sub-hypotheses are derived:

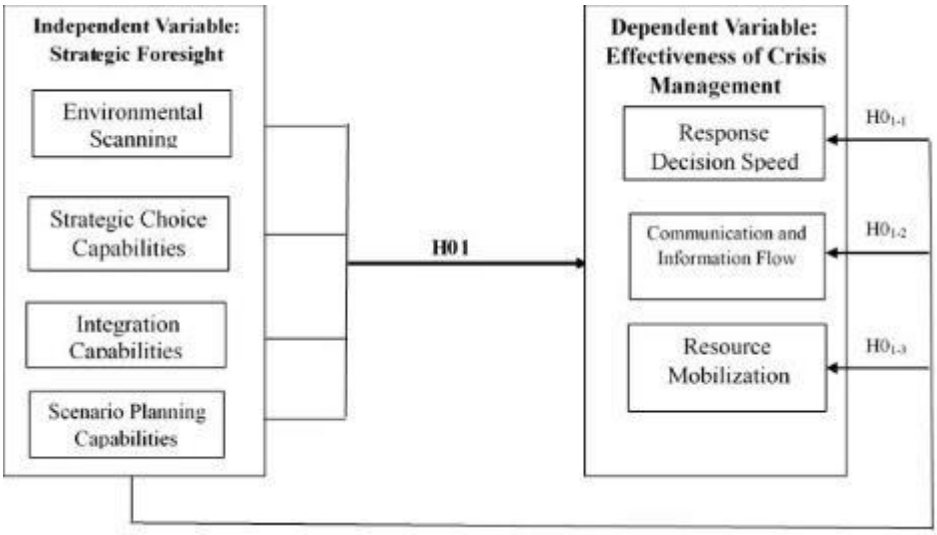
H01-1*: There is no statistically significant effect at the significance level (α ≥ 0.05) of strategic foresight and its dimensions on response speed in Jordanian private universities operating in the Amman Governorate.*

H01-2*: There is no statistically significant effect at the significance level (α ≥ 0.05) of strategic foresight and its dimensions on communication and information flow in Jordanian private universities operating in the Amman Governorate.*

H01-3*: There is no statistically significant effect at the significance level (α ≥ 0.05) of strategic foresight and its dimensions on resource mobilization in Jordanian private universities operating in the Amman Governorate.*

Study Model

Based on the review of previous studies related to the current research topic and its variables, the hypothesized relationships in this study can be represented through the proposed study model, as illustrated in **Figure (1)**:



Research Methodology

This study employed the descriptive-analytical method, which was used to describe the study variables—strategic foresight and crisis management effectiveness—and to analyze the data collected from the sample participants. The purpose was to test the relationship between the variables and determine the impact of strategic foresight on the effectiveness of crisis management.

Population and Sample of the Study

The population of the study consisted of all managers at the upper and middle administrative levels in Jordanian private universities operating in the Amman Governorate, totaling 10 universities (Ministry of Higher Education and Scientific Research website, 2024). The number of individuals within this population was 323. The researchers adopted a simple random sampling method, and according to Krejcie & Morgan's Table (1970), the representative sample size for this population is 180 participants, as also cited in Najjar et al. (2020).

Validity and Reliability of the Study Instrument

The researchers used a **questionnaire** to collect data from the study sample. The questionnaire consisted of **three sections**, as follows:

- **Section One:** Personal and professional characteristics of the respondents, including gender, age group, educational qualification, and years of experience.
- **Section Two:** Items measuring **strategic foresight** (the independent variable) through its four dimensions: *environmental scanning, strategic choice, strategic integration, and scenario planning*.
- **Section Three:** Items measuring **crisis management effectiveness** (the dependent variable) through its three dimensions: *response speed, communication and information flow, and resource mobilization*.

Instrument Validity

The researchers tested **content validity** for the dimensions of both strategic foresight and crisis management effectiveness. This was done by conducting **Pearson correlation** tests between each item and the dimension it belongs to. The results are shown below:

Table (2)
Construct Validity for Strategic Foresight Dimensions

Dimension	Correlation Coefficient	Significance Level
Environmental Scanning	0.673	0.000**
Strategic Choice	0.690	0.000**
Strategic Integration	0.556	0.000**
Scenario Planning	0.699	0.000**

Note: p < 0.01

As shown in Table (2), the correlation coefficients for the dimensions of strategic foresight ranged from **0.556 to 0.699**, all statistically significant at the **0.01 level**, indicating a **strong internal consistency** among the items measuring the independent variable.

Table (3)
Construct Validity for Crisis Management Effectiveness Dimensions

Dimension	Correlation Coefficient	Significance Level
Response Speed	0.416	0.000**
Communication & Information Flow	0.720	0.000**
Resource Mobilization	0.152	0.042*

Note: p < 0.01, *p < 0.05*

Table (3) shows that the correlation coefficients for the dimensions of the dependent variable ranged from 0.152 to 0.720, all statistically significant at either the 0.01 or 0.05 levels. This indicates that the items exhibit reasonable internal consistency in measuring the effectiveness of crisis management.

Instrument Reliability
The purpose of the reliability test is to ensure the consistency and stability of the responses across the different questionnaire items. The researchers used **Cronbach's Alpha** test, where a reliability coefficient of **0.70 or higher** is considered acceptable, and values closer to **1.00** indicate higher instrument reliability (Sekaran & Bougie, 2016). The results are summarized in the table below:

Table (4)
Cronbach's Alpha for the Study Dimensions

No.	Dimension	Alpha Value
1	Environmental Scanning	0.723
2	Strategic Choice	0.712
3	Strategic Integration	0.714
4	Scenario Planning	0.782
5	Response Speed	0.897
6	Communication & Information Flow	0.847
7	Resource Mobilization	0.727

As shown in Table (4), the Cronbach's Alpha values ranged between 0.712 and 0.897, all exceeding the 0.70 threshold, which confirms the reliability and internal consistency of the study instrument and the stability of the respondents' answers.

Multicollinearity Test

Multicollinearity is a statistical issue associated with independent variables, which occurs when there is a high (or near-perfect) correlation between two or more independent variables. The presence of such high correlation negatively affects the accuracy of estimations by inflating the coefficient of determination (R^2) beyond its actual explanatory power. To test for multicollinearity, Pearson correlation coefficients are computed. According to the decision rule, data are considered free from multicollinearity if the Pearson correlation coefficients between any two independent variables are less than 0.80. The table below presents the results of the multicollinearity test using Pearson correlation coefficients between the dimensions of the independent variable:

Table (5)

Pearson Correlation Coefficients Among Strategic Foresight Dimensions

Variable	Environmental Scanning	Strategic Choice	Strategic Integration	Scenario Planning
Environmental Scanning	1.000			
Strategic Choice	0.303**	1.000		
Strategic Integration	0.460**	0.541**	1.000	
Scenario Planning	0.234**	0.384**	0.273**	1.000

Note: $p < 0.01$

As shown in Table (5), the highest correlation coefficient among the dimensions of the independent variable was 0.541 (between strategic integration and strategic choice), while all other correlation values were lower. Since all correlation coefficients are below the threshold of 0.80, the data are free from severe multicollinearity among the strategic foresight dimensions.

To further confirm this result, the Variance Inflation Factor (VIF) and Tolerance values were calculated. multicollinearity is not a concern if VIF values range between 1.0 and 10.0, and Tolerance values range between 0.1 and 1.0. The results are summarized below:

Table (6)

VIF and Tolerance Values for Strategic Foresight Dimensions

Variable	VIF	Tolerance
Environmental Scanning	1.131	0.884
Strategic Choice	1.244	0.804
Strategic Integration	1.090	0.917
Scenario Planning	1.269	0.788

As shown in Table (6), all VIF values are well below 10.0, and all Tolerance values are below 1.0, indicating that the data are free from multicollinearity problems among the independent variable dimensions.

Data Analysis and Hypothesis Testing

Data Analysis

Means and standard deviations were calculated for the responses of the study sample on the dimensions of the independent variable (strategic foresight) and the dependent variable (crisis management effectiveness). This analysis aimed to identify participants' trends and the relative importance of their responses. The results are presented below:

Table (7)
Mean Scores and Relative Importance of Participants' Estimates on Strategic Foresight Dimensions

Rank	No.	Dimension	Mean	Relative Importance
2	1	Environmental Scanning	3.91	High
3	2	Strategic Choice	3.76	High
4	3	Strategic Integration	3.73	High
1	4	Scenario Planning	4.14	High
—	—	Overall Strategic Foresight	3.89	High

As shown in Table (7), the mean scores for participants' estimates of the relative importance of strategic foresight ranged from 3.73 to 4.14. The Scenario Planning dimension ranked first with the highest mean of 4.14, indicating high relative importance. It was followed by Environmental Scanning with a mean of 3.91, then Strategic Choice with 3.76, and finally Strategic Integration with 3.73, all reflecting high relative importance. The overall mean score for Strategic Foresight as perceived by the study sample was 3.89, indicating a high level of strategic foresight within the private universities under study.

Table (8)
Mean Scores and Standard Deviations for Participants' Estimates on Crisis Management Effectiveness Dimensions

Rank	No.	Dimension	Mean	Relative Importance
1	1	Response Speed	4.01	High
3	2	Communication & Information Flow	3.56	Medium
2	3	Resource Mobilization	3.60	Medium
—	—	Overall Crisis Management Effectiveness	3.73	High

As shown in Table (8), the mean scores for participants' estimates on the dimensions of crisis management effectiveness ranged from 3.56 to 4.01. The Response Speed dimension ranked first with a mean of 4.01, reflecting high relative importance, followed by Resource Mobilization with a mean of 3.60, and Communication & Information Flow with a mean of 3.56, both indicating medium relative importance. The overall mean score for Crisis Management Effectiveness was 3.73, indicating a high level of effectiveness in crisis management within the private universities under study.

2. Hypothesis Testing

Main Hypothesis

H01: There is no statistically significant effect at the significance level ($\alpha \geq 0.05$) of strategic foresight and its dimensions (environmental scanning, strategic choice, strategic integration, and scenario planning) on the effectiveness of crisis management and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate.

To test this hypothesis, the researchers applied Multiple Linear Regression Analysis. The results are presented below:

Table (9)
Multiple Regression Analysis of the Effect of Strategic Foresight Dimensions on Crisis Management Effectiveness

Model Summary		ANOVA		Coefficients			
R	0.468	**F (calculated)**	12.239	**Variable**	**β**	**Std. Error**	**t-value**
R^2 (Coefficient of Determination)	0.219	**Degrees of Freedom (df)**	4	Environmental Scanning	0.073	0.048	1.521
		Significance (Sig.)	0.000	Strategic Choice	0.078	0.045	1.759
				Strategic Integration	0.226	0.045	4.971
				Scenario Planning	0.143	0.050	2.849

The results in Table (9) indicate that the correlation coefficient (R = 0.468) signifies a moderate positive relationship between the independent variable and the dependent variable. The calculated F-value of 12.239 at a significance level of p = 0.000 (which is less than 0.05) indicates that the effect of the strategic foresight dimensions on crisis management effectiveness is statistically significant. The coefficient of determination (R^2 = 0.219) shows that 21.9% of the variance in crisis management effectiveness is explained by the variance in the strategic foresight dimensions.

The coefficients table further shows:

- The effect of Environmental Scanning (β = 0.073, t = 1.521, p = 0.130) is not statistically significant.
- The effect of Strategic Choice (β = 0.078, t = 1.759, p = 0.080) is also not statistically significant.
- The effect of Strategic Integration (β = 0.226, t = 4.971, p = 0.000) is statistically significant.
- The effect of Scenario Planning (β = 0.143, t = 2.849, p = 0.005) is also statistically significant.

These findings suggest that Strategic Integration had the strongest influence on crisis management effectiveness, followed by Scenario Planning, then Strategic Choice, while Environmental Scanning had the least impact. Based on these results, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that: There is a statistically significant effect at the level of ($\alpha \leq 0.05$) of strategic foresight and its dimensions (environmental scanning, strategic choice, strategic integration, and scenario planning) on the effectiveness of crisis management and its dimensions (response speed, communication and information flow, and resource mobilization) in Jordanian private universities operating in the Amman Governorate.

Sub-Hypothesis 1

H01-1: There is no statistically significant effect at the significance level ($\alpha \geq 0.05$) of strategic foresight and its dimensions on response decision speed in Jordanian private universities operating in the Amman Governorate.

The researchers employed simple linear regression analysis to examine the effect of strategic foresight on response decision speed in private universities within the Amman Governorate. The results of hypothesis testing are presented in Table (10):

Table (10)
Simple Linear Regression Analysis of the Effect of Strategic Foresight on Response Decision Speed

Model Summary		ANOVA		Coefficients			
R	0.338	F (calculated)	22.990	Variable	β	Std. Error	t-value
R^2 (Coefficient of Determination)	0.114	Degrees of Freedom (df)	1	Strategic Foresight	0.566	0.047	4.795
Significance (Sig.)	0.000						

The results in Table (10) show that the correlation coefficient is R = 0.338, indicating a moderate positive relationship (33.8%) between strategic foresight and response decision speed.

The coefficient of determination (R^2 = 0.114) reveals that strategic foresight explains 11.4% of the variance in response decision speed. The F-value = 22.990 is statistically significant at p = 0.000, confirming the significance of the regression model at $\alpha \leq 0.05$ and one degree of freedom.

Moreover, the coefficient table shows that the beta value (β = 0.566) means a one-unit increase in strategic foresight results in a 56.6% increase in response decision speed. The t-value = 4.795 and the corresponding significance level of p = 0.000 confirm the statistical significance of this effect at the 5% level.

Based on the analysis, the null sub-hypothesis H01-1 is rejected, and the alternative hypothesis is accepted, which states:There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of strategic foresight and its dimensions on response decision speed in Jordanian private universities operating in the Amman Governorate.

Sub-Hypothesis 2

H01-2: There is no statistically significant effect at the significance level ($\alpha \geq 0.05$) of strategic foresight and its dimensions on communication and information flow in Jordanian private universities operating in the Amman Governorate.

The researchers employed simple linear regression analysis to examine the effect of strategic foresight on communication and information flow in private universities within the Amman Governorate. The results of hypothesis testing are shown in Table (11):

Table (11)
Simple Linear Regression Analysis of the Effect of Strategic Foresight on Communication and Information Flow

Model Summary		ANOVA		Coefficients			
R	0.263	F (calculated)	13.184	Variable	β	Std. Error	t-value
R^2 (Coefficient of Determination)	0.069	Degrees of Freedom (df)	1	Strategic Foresight	0.683	0.188	3.361
Significance (Sig.)	0.000						

The results in Table (11) show that the correlation coefficient (R = 0.263) indicates a low positive relationship (26.3%) between strategic foresight and communication and information flow.

The coefficient of determination (R^2 = 0.069) reveals that strategic foresight explains 6.9% of the variance in communication and information flow. The calculated F-value = 13.184 is statistically significant at p = 0.000, confirming the significance of the regression model at $\alpha \leq 0.05$.

The coefficient table shows that the beta value (β = 0.683) means a one-unit increase in strategic foresight is associated with a 6.83% increase in communication and information flow. The t-value = 3.361, with a p-value = 0.000, confirms the statistical significance of this effect at the 5% level.

Based on the findings, the null sub-hypothesis H01-2 is rejected, and the alternative hypothesis is accepted, which states: There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of strategic foresight and its dimensions on communication and information flow in Jordanian private universities operating in the Amman Governorate.

Sub-Hypothesis 3

H01-3: There is no statistically significant effect at the significance level ($\alpha \geq 0.05$) of strategic foresight and its dimensions on resource mobilization in Jordanian private universities operating in the Amman Governorate.

The researchers employed simple linear regression analysis to examine the effect of strategic foresight on resource mobilization in private universities within the Amman Governorate. The results of hypothesis testing are presented in Table (12):

Simple Linear Regression Analysis of the Effect of Strategic Foresight on Resource Mobilization

Model Summary		ANOVA		Coefficients			
R	0.530	F (calculated)	69.619	Variable	β	Std. Error	t-value
R^2 (Coefficient of Determination)	0.281	Degrees of Freedom (df)	1	Strategic Foresight	0.951	0.114	8.344
Significance (Sig.)	0.000						

The results in Table (12) indicate that the correlation coefficient (R = 0.530) reflects a moderate positive relationship (53.0%) between strategic foresight and resource mobilization.

The coefficient of determination (R^2 = 0.281) reveals that strategic foresight explains 28.1% of the variance in resource mobilization. The F-value = 69.619 is statistically significant at p = 0.000, confirming the regression model's significance at $\alpha \leq 0.05$ with one degree of freedom. The coefficient table shows that the beta coefficient (β = 0.951) indicates that a one-unit increase in strategic foresight results in a 95.1% increase in resource mobilization. The t-value = 8.344, with p = 0.000, confirms the high significance of this effect.

Based on the analysis, the null sub-hypothesis H01-3 is rejected, and the alternative hypothesis is accepted, which states: There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of strategic foresight and its dimensions on resource mobilization in Jordanian private universities operating in the Amman Governorate.

Discussion of Results and Recommendations

First: Results of the Analysis of Study Dimensions and the Relative Importance of Variables

The results indicated that the overall level of strategic foresight in Jordanian private universities was high, with a total mean score of 3.89, reflecting participants' recognition of the importance of this approach in enhancing institutional capacity to manage crises. Among the dimensions, scenario planning ranked first with a mean of 4.14, followed by environmental scanning (3.91), strategic choice (3.76), and lastly strategic integration (3.73). The high ranking of scenario planning highlights the importance universities place on this practice, as it serves as a core tool for strategic planning and risk management. This finding aligns with Wolbers et al. (2024), who emphasized the role of scenario planning in enhancing institutional adaptability and decision-making during crises.

Environmental scanning's second-place ranking reflects universities' attention to monitoring both internal and external factors that may impact performance. This corresponds with Alhajahjeh and Alkshali (2023), who found that environmental scanning is essential for enhancing crisis response speed by providing clear insight into potential risks.

Strategic choice, ranking third, indicates that universities carefully evaluate strategic alternatives before making critical decisions. This is consistent with Della Porta and Portos (2023), who noted that systematic strategic decision-making enhances organizations' ability to face future challenges.

Strategic integration, though ranked last, still held a high level of importance. This may reflect existing challenges in coordination across departments or in resource integration, which is echoed by Brockington et al. (2006), who noted that institutional integration may be less effective in environments with organizational or administrative constraints.

These findings support Alsheyyab et al. (2024), who observed varying roles of strategic foresight dimensions in crisis management, and align with Badr (2023) and Naji (2022), who emphasized the importance of scenario planning and strategic foresight in communication and decision-making during crises.

In summary, private universities in Jordan recognize the importance of strategic foresight in enhancing crisis management effectiveness, particularly in proactive planning tools such as scenario development and environmental scanning. However, improvements are needed in strategic integration mechanisms to ensure a more coordinated and comprehensive response.

The results also showed that the level of crisis management effectiveness was generally high, with an overall mean score of 3.73. Response speed ranked first (4.01), followed by resource mobilization (3.60) and communication and information flow (3.56).

The prominence of response speed indicates universities' emphasis on timely and decisive action during crises, in line with Robert & Lajtha (2002) and Crandall et al. (2013), who highlighted quick decision-making as essential for minimizing crisis impacts.

Resource mobilization's second-place ranking reflects awareness of the need for accessible human and material resources, although challenges may exist in mobilizing these efficiently. This supports Coombs (2018), who stressed the value of proactive resource planning.

Communication and information flow ranked lowest, despite its critical role in coordinating responses. This may signal internal communication challenges, as indicated in Kalogiannidis et al. (2023), who linked poor information flow with ineffective decision-making during crises. Thus, while Jordanian private universities exhibit a solid level of crisis management effectiveness, particularly in response speed, there is a clear need to enhance resource mobilization systems and improve internal communication frameworks.

Second: Results of Hypothesis Testing

The main hypothesis analysis revealed that strategic foresight has a moderate impact on crisis management effectiveness, explaining 21.9% of the variance. Among the dimensions, strategic integration and scenario planning had the most significant effects, while environmental scanning and strategic choice had no direct significant impact.

Regarding sub-hypotheses:

Strategic foresight significantly affected response speed, explaining 11.4% of the variance—indicating that universities with more developed foresight strategies can respond more flexibly and quickly.

A limited but significant effect was found on communication and information flow, with foresight explaining 6.9% of its variance.

A significant effect was observed on resource mobilization, with 28.1% of the variance explained—highlighting the key role of planning and scenario development in securing necessary resources during crises.

These results align with Alsheyyab et al. (2024), Wolbers et al. (2024), and Alhajahjeh and Alkshali (2023), who all confirm the contribution of strategic foresight—especially scenario planning and integration—in improving crisis response, coordination, and readiness.

Third: Recommendations

Based on the findings confirming the effect of strategic foresight on crisis management effectiveness in Jordanian private universities, the following practical recommendations are proposed:

Promote a culture of strategic foresight by integrating its concepts and tools into institutional planning and decision-making. This includes training academic and administrative leaders in techniques such as scenario planning and trend analysis.

Develop flexible crisis response plans with clearly defined roles and responsibilities. Universities should create and regularly update multi-scenario crisis protocols aligned with evolving environmental factors.

Enhance communication channels across departments to ensure effective information flow during crises. This could include implementing advanced digital communication platforms and establishing a centralized crisis information center.

Establish proactive resource mobilization strategies by maintaining an updated resource database and conducting regular simulation drills to test readiness and responsiveness.
Conduct periodic evaluations of the effectiveness of crisis management strategies by collecting staff feedback and analyzing the performance of response plans. These evaluations should inform continuous improvements tailored to emerging risks and challenges.

Theoretical and Contextual Contribution

This study provides a significant contribution to the existing body of knowledge by emphasizing the role of strategic foresight in enhancing crisis management effectiveness within higher education institutions, particularly in the context of Jordanian private universities. Theoretically, it bridges a notable gap in the literature by demonstrating how strategic foresight dimensions—specifically scenario planning and strategic integration—serve as key drivers of crisis preparedness and response. This insight advances the understanding of proactive management practices in turbulent environments. Contextually, the research is especially relevant to the Jordanian higher education sector, where universities face multifaceted challenges due to economic, social, and political uncertainties. By highlighting the unique organizational dynamics of Jordanian private universities and proposing practical recommendations, this study offers a blueprint for institutions in similar contexts to enhance their crisis management capabilities. This dual contribution underscores the vital role of foresight as both a theoretical framework and a practical tool for resilience in the face of increasing global uncertainties.

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