

# The Impact of Strategic Adaptation Practices in an Environment of Uncertainty: An Applied Study in the Jordanian Public Security Directorate

Submitted in December 2025

Accepted in February 2026

Published Online in February 2026

<https://doi.org/10.64190/abj.1.2.2026.13><https://aradojournal.org/>

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## Abstract

*This study aimed to analyze the impact of strategic adaptation practices in an environment of uncertainty within the Jordanian Public Security Directorate. The study adopted a descriptive-analytical approach, with a survey questionnaire developed to collect primary data and distributed electronically to the study population consisting of 351 individuals from senior and middle management. The number of questionnaires valid for statistical analysis was 284. To address the research questions and test hypotheses, Structural Equation Modeling using Partial Least Squares (SEM-PLS) was employed via SmartPLS 4 software.*

*The descriptive results revealed that the level of strategic adaptation practices was high, with an overall mean of 4.455. The dimension of "strategic change adoption" ranked first with a mean of 4.489, followed by "Strategic Synergy" at 4.421. The level of environmental uncertainty was moderate, with an overall mean of 3.394. The structural model results demonstrated a statistically significant positive impact of strategic adaptation practices on environmental uncertainty ( $\beta=0.904$ ,  $T=6.472$ ,  $Sig=0.000$ ), with high explanatory power ( $R^2=0.818$ ), large effect size ( $f^2=0.807$ ), and good predictive capacity ( $q^2=0.403$ ). At the sub-hypothesis level, Strategic Synergy exhibited the strongest impact ( $\beta=0.878$ ,  $T=18.891$ ,  $Sig=0.000$ ,  $R^2=0.770$ ) compared to strategic change adoption ( $\beta=0.813$ ,  $T=2.845$ ,  $Sig=0.000$ ,  $R^2=0.660$ ). The study recommends maintaining and enhancing the level of strategic adaptation practices, particularly in an environment characterized by uncertainty.*

*Keywords: Strategic Adaptation Practices, Environmental Uncertainty, Jordanian Public Security Directorate.*

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**Citation:** Al-Maaitah, Obeidallah Abdrabbo and Al-Mahasneh, Mohammed Abdelrahim. (2026). The Impact of Strategic Adaptation Practices in an Environment of Uncertainty: An Applied Study in the Jordanian Public Security Directorate. *ARADO Business Journal*, 1(2), 145 - 166. <https://doi.org/10.64190/abj.1.2.2026.13>.

## Introduction

Strategic adaptation represents one of the fundamental concepts in contemporary management, reflecting an organization's capacity to modify its strategies, policies, and operations in response to continuous changes in its internal and external environments. Strategic adaptation requires leaders and managers to possess a profound understanding of surrounding variables, the ability to anticipate the future, and the capability to make flexible decisions that enable the organization to maintain its competitiveness and sustainability in a dynamic market.

The importance of strategic adaptation becomes particularly prominent in organizations facing increasing challenges due to factors such as globalization, rapid technological development, changing customer expectations, and competitive pressures.

Environmental uncertainty, conversely, is defined as a state in which the organization lacks sufficient or accurate information about factors affecting its future performance, such as market fluctuations, governmental policies, technological developments, or even sudden crises like pandemics or natural disasters. In such environments, future predictions become difficult, and decision-making risks increase. Environmental uncertainty directly affects the organization's capacity for effective planning and imposes challenges requiring high flexibility in thinking and execution.

When linking strategic adaptation with environmental uncertainty, it becomes evident that strategic adaptation practices constitute one of the most critical tools organizations can employ to confront ambiguity and fluctuations in their environment. The greater the degree of uncertainty, the more necessary it becomes to adopt adaptive strategies that enable the organization to respond rapidly to changes and adjust its course according to emergent circumstances. This encompasses developing early warning systems, fostering organizational learning culture, embracing innovation, and providing effective communication channels across various administrative levels. Strategic adaptation practices in uncertain environments extend beyond reactive responses to include proactive approaches in anticipating changes and preparing to address them effectively, thereby positively impacting the organization's ability to achieve its objectives and ensure continuity in a complex and continuously changing business environment.

The Jordanian Public Security Directorate exemplifies the application of strategic adaptation in an environment characterized by uncertainty, as it confronts renewed security challenges such as terrorism, organized crime, and regional changes, necessitating the development of flexible plans and strategies that respond rapidly to variables. The Directorate has enhanced institutional learning, updated training programs, and developed early warning systems, contributing to raising its efficiency and capacity to address risks and achieve societal stability despite the complexities of the surrounding security environment. Consequently, this study examines the impact of strategic adaptation practices in an environment of uncertainty within the Jordanian Public Security Directorate.

## Research Problem

Given the rapid changes imposed by an environment of uncertainty, traditional management methods prove insufficient. This environment requires administrators to

depend on strategic adaptation to predict changes and early indicators of environmental transformations. This approach encompasses proactive thinking to adapt to potential changes and identify possible crises that may threaten security and property.

Clearly, security institutions seek to prevent security problems as much as possible. Hence, strategic adaptation becomes an essential means of reducing the effects of environmental uncertainty and diminishing the level of ambiguity. This approach may facilitate achieving management strategies that comprehensively address decision-making, reduce problem-related threats, and enhance the capacity to respond and adapt in the face of contemporary challenges.

Given the vital role performed by the Jordanian Public Security Directorate in containing environmental uncertainty and mitigating its negative effects, this study addresses the central problem of analyzing the impact of strategic adaptation practices in its dimensions (strategic change adoption and Strategic Synergy) in an environment of uncertainty within the Jordanian Public Security Directorate. The following sub-questions emerge from the main research question:

- 1- What is the level of strategic adaptation practices and each of its dimensions (strategic change adoption and Strategic Synergy) in the Jordanian Public Security Directorate from the respondents' perspective?
- 2- What are the characteristics of environmental uncertainty in the Jordanian Public Security Directorate from the respondents' perspective?

## **Research Objectives**

The study primarily aims to demonstrate the impact of strategic adaptation practices (strategic change adoption and Strategic Synergy) in an environment of uncertainty within the Jordanian Public Security Directorate. Accordingly, the following sub-objectives emerge:

- 1- To identify the level of strategic adaptation practices in the Jordanian Public Security Directorate, encompassing each dimension (strategic change adoption and Strategic Synergy).
- 2- To identify the characteristics of environmental uncertainty in the Jordanian Public Security Directorate.
- 3- To provide a set of recommendations aimed at enhancing understanding and leveraging strategic adaptation practices in confronting environmental uncertainty within the Jordanian Public Security Directorate. These recommendations seek to strengthen the strategic role of managing environmental uncertainty effectively.

## **Research Significance**

### ***Scientific Significance***

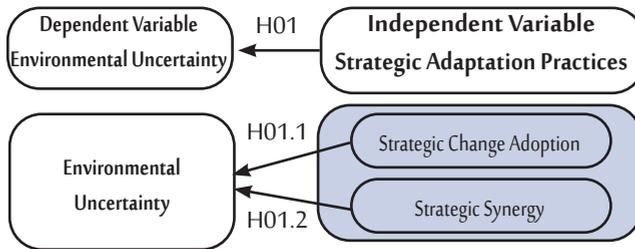
The scientific significance of this study lies in its examination of the impact of strategic adaptation practices in an environment of uncertainty within a Jordanian security context characterized by volatility, complexity, and frequent surprises. It contributes to enriching

the literature on strategic management in security institutions by linking the concepts of strategic adaptation and environmental uncertainty, thereby addressing a scholarly gap resulting from the limited studies that have addressed this topic in the Jordanian security environment and providing results upon which subsequent studies can build.

**Practical Significance**

The practical significance of the study resides in providing practical value to the Jordanian Public Security Directorate and similar security institutions by identifying the level of strategic adaptation practices and diagnosing strengths and areas for improvement in an environment of uncertainty. The findings benefit decision-makers in developing policies and procedures, directing training programs and building leadership capacities, and enhancing information gathering and risk anticipation mechanisms, thereby raising the institution’s readiness to respond to accelerating changes and manage crises more efficiently, reducing the negative effects of environmental uncertainty, and supporting security sustainability and stability.

**Research Model**



Source: Developed by researchers based on previous studies.

The researchers developed the study model based on previous studies that addressed the independent variable (strategic adaptation practices), including Chanyasak et al. (2022), Hamad (2021), and Al-Zoubi (2019); and studies that addressed the dependent variable (environmental uncertainty), including Ezerdi et al. (2022), Al-Ghalibi et al. (2016), and Al-Ma’adhidi (2015).

**Research Hypotheses**

This study is based on a set of hypotheses derived from the research problem and its various elements, formulated as follows:

**Main Hypothesis (H01)**

There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of strategic adaptation practices in their combined dimensions (strategic change adoption and Strategic Synergy) on environmental uncertainty in the Jordanian Public Security Directorate.

This main hypothesis is subdivided into two sub-hypotheses:

- **Sub-Hypothesis 1 (H01.1):** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of strategic change adoption practices on environmental uncertainty in the Jordanian Public Security Directorate.
- **Sub-Hypothesis 2 (H01.2):** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of Strategic Synergy practices on environmental uncertainty in the Jordanian Public Security Directorate.

## Operational Definitions

In light of reviewing various definitions addressed in previous literature, the operational definitions of the study variables and dimensions can be specified as follows:

### *Independent Variable: Strategic Adaptation Practices*

This refers to the capacity of the Public Security Directorate to practice strategic adaptation approaches to manage security crises, enabling it to predict internal and external environmental variables and sense early warnings indicating the existence of security crises, to handle them efficiently, contain them, and limit their potential negative effects. Strategic adaptation practices in this study are represented through: strategic change adoption and Strategic Synergy, according to the following definitions:

- **Strategic Change Adoption:** Refers to the Jordanian Public Security Directorate's adoption of applicable scenarios to keep pace with continuous change, adapt to environmental changes, and identify work methods appropriate to surrounding circumstances that may generate security crises, requiring rapid decision-making and formulating appropriate action plans to confront these crises. This dimension was measured using items (1-6) in the study instrument.
- **Strategic Synergy:** The capacity of the Jordanian Public Security Directorate to reconfigure its human resources and all capabilities to confront security crises, in addition to encouraging teamwork and fostering cooperation spirit to accomplish job tasks under the most difficult circumstances. It encompasses continuous efforts to provide optimal services to clients. This dimension was measured using items (7-11) in the study instrument.

### *Dependent Variable: Environmental Uncertainty*

The capacity of the Jordanian Public Security Directorate to make rapid decisions to adapt to the set of internal and external factors and forces that may lead to security crises, as well as building strategic options through providing accurate information that enables officials to manage security crises efficiently and effectively. This dimension was measured using items (12-20) in the study instrument.

## Theoretical Framework and Previous Studies

### *Strategic Adaptation: Concept and Practices*

Strategic adaptation represents one of the contemporary concepts receiving widespread attention in strategic management literature, given its central role in

enabling organizations to confront accelerating changes in their internal and external environments. This concept expresses the organization's ability to sense transformations, predict them, reformulate its strategies, and align its resources and organizational structures appropriately with those transformations (Richter, 2016; Renteria, 2025).

The importance of this adaptation increases in an environment characterized by uncertainty, complexity, and continuous volatility resulting from economic, technological, and social changes, where it becomes a continuous necessity not limited to crisis periods, but rather a strategic tool for enhancing organizational readiness and effective response (Brown et al., 2021).

Strategic adaptation contributes to raising performance efficiency through improving operational models, developing organizational structures, and leveraging modern technology, in addition to enhancing competitive capacity by improving supply chain, production, and distribution. It also constitutes a fundamental factor in supporting organizational sustainability by stimulating renewal and learning, and responding to risks and opportunities alike (Sadraei & Ahmad, 2024; Lumor, 2021).

The most prominent strategic adaptation practices include adopting a flexible approach encompassing: knowledge sharing and unifying strategic vision within the organization (Ritson, 2020), empowering employees to act efficiently and flexibly in confronting crises (Rajgopal, 2020), and enhancing internal and external cooperation to support innovation and develop adaptive solutions, in addition to being proactive in monitoring potential threats and changes. The continuous improvement process in organizational operations is also considered an important tool for maintaining organizational vitality and avoiding stagnation, which enhances the organization's capacity for rapid learning and dynamic response to variables.

### ***Requirements and Characteristics of Strategic Adaptation in Organizations***

Achieving strategic adaptation in organizations requires the availability of a set of fundamental requirements that enhance the organization's flexibility and capacity to interact with accelerating environmental changes. Among the most prominent of these requirements are: flexible cooperation networks based on mutual trust and knowledge exchange between individuals and organizational units, contributing to enhancing organizational learning and continuous updating (Secilmis, 2019). Organizational competence is also considered a fundamental factor supporting flexible and rapid decision-making, alongside employee empowerment and encouraging their initiative and effective participation (Bienmali, 2021).

The adaptation process also necessitates having organizational structures capable of reconfiguration and modification according to situational requirements and environmental context (Hatzijordanou, 2019), in addition to an accurate and flexible technological infrastructure that allows smooth information flow between various administrative levels (Randy, 2020). Strategic adaptation is enhanced through the availability of human resources possessing multiple skills and rapid learning and adaptation capacity to developments (Thomas, 2020). Additionally, having an organizational

culture based on leadership, continuous learning, and knowledge sharing constitutes a cornerstone in supporting this type of adaptation (Greer, 2021).

At the organizational characteristics level, adaptive organizations are distinguished by their high capacity to respond to variables in an environment characterized by instability and complexity, manifested through their adoption of a flexible organizational structure, clear decentralization in decision-making, and effective delegation of authority, thereby enhancing efficiency and response speed (Hatzijordanou, 2019). These characteristics integrate with clear organizational policies and harmony between roles and units, in addition to human resource practices centered on empowerment, innovation, and adopting proactive organizational behavior encouraging initiative and experimentation. These organizations also create a flexible cultural environment that encourages individuals to accept change and handle crises and pressures constructively (Morelli et al., 2016; Barnes, 2018; Obolensky, 2017).

### ***Dimensions of Strategic Adaptation Practices***

The current study adopted three main dimensions for strategic adaptation practices, agreed upon in several contemporary literature sources (Hamad, 2021; Al-Zoubi, 2019; Chanyasak et al., 2022):

#### **1- Strategic Change Adoption**

This dimension refers to the organization's capacity to make fundamental changes in its policies, structures, and resources in alignment with environmental transformations and opportunities. It is considered among the direct responsibilities of senior management, which undertakes building a clear strategic vision, enhancing core competencies, and managing change resistance through effective methods ensuring smooth transition toward operational models better aligned with reality (Grote, 2018; Crawford, 2021; Brown et al., 2021).

#### **2- Strategic Synergy**

This concept represents the organization's capacity to work with internal harmony and exploit its strategic relationships with partners through forming multidisciplinary work teams and integrating human and technological resources to confront emerging challenges. Strategic Synergy encompasses structural, behavioral, and technical dimensions, emphasizing participatory learning and organizational knowledge distribution (Rawashdeh et al., 2024).

It becomes clear in light of the above that strategic adaptation practices require a supportive organizational environment characterized by flexible structures, an institutional culture encouraging change, and work teams possessing competence and readiness, alongside interactive strategies enabling the organization to keep pace with the requirements of a volatile business environment.

### ***Environmental Uncertainty***

The organization is considered an open system that continuously interacts with its internal and external environments to achieve its objectives, through transforming

inputs into outputs using a dynamic method dependent on adapting to environmental changes (Bur & Schaltegger, 2017). With escalating changes and environmental instability, the concept of uncertainty emerges as one of the most prominent challenges profoundly affecting administrative decision quality (Daft, 2015).

Managing environmental uncertainty is viewed as a crucial element in sustaining organizational performance, as it requires building a flexible organizational structure, supportive institutional culture, and effective exploitation of internal resources, enabling the organization to adapt to external changes and maintain its competitive level (Bratton, 2020). Abu Allan & Alghizzawi (2024) emphasize that uncertainty cannot be reduced to a single dimension but is characterized by complexity, ambiguity, and volatility, necessitating leaders to adopt flexible and participatory organizational tools and structures to respond effectively to various sources of uncertainty.

Regarding the internal environment, it manifests in elements such as organizational structure, human resources, and technological infrastructure. The greater the harmony and integration among these elements, the greater the organization's capacity to confront threats and seize opportunities in an unstable environment (Olsen & Brunsson, 2018). In this context, Tang & Luo (2024) note that environmental uncertainty may impede digital transformation processes within organizations, particularly under emphasis on short-term decisions and financial constraints; however, adopting policies encouraging sustainable financing and digital stability can mitigate these challenges.

Similarly, Liu et al. (2021) demonstrated through an applied study of 38 industrial enterprises that environmental sensing represents one of the fundamental pillars for enhancing adaptive capabilities. This sensing forms the framework enabling organizations to anticipate changes and support digital transformation, positively reflecting on their institutional performance in an environment characterized by instability.

## **The Relationship between Strategic Adaptation Practices and Environmental Uncertainty**

The escalation of crises and environmental changes in the modern era has led to increased uncertainty facing organizations, making strategic adaptation a necessity for organizational survival and stability. Sylves (2019) indicated that organizations under information scarcity during crises need to practice strategic adaptation to reduce the impact of uncertain environments on administrative decisions.

Schermer (2021) confirmed the existence of a mutual influence relationship between strategic adaptation and uncertainty, as this practice contributes to organizational harmony with environmental changes. Popkova (2017) demonstrated that organizational survival requires effective response to changes and exploiting opportunities to avoid potential threats.

In this context, Hawrysz et al. (2024) supported the same idea, showing that perceiving environmental uncertainty drives organizations to adopt digital technologies

and build organizational trust that enhances internal adaptation and response, leading to increased job engagement.

Kobrin (2022) clarified that the organization's capacity to perceive its environment contributes to reconfiguring its internal resources in alignment with surrounding variables, supported by numerous models seeking to achieve compatibility with environmental uncertainty. This is further supported by Rawashdeh et al. (2024), who demonstrated that strategic flexibility based on rapid sensing and modification contributes to enhancing institutional performance in unstable industrial environments in Jordan.

Beven (2018) emphasized the importance of aligning the organization's strategic objectives with its environment to achieve harmony and adaptation. Regarding appropriate strategies, Kaufman (2017) presented three adaptation methods for environmental uncertainty: entrepreneurial, adaptive, and planning. Welford (2016) classified strategies into four types: Strategic Synergy, analyzer, responder, and prospector, all aimed at confronting changing environmental challenges and positively influencing them. Based on this importance, this study seeks to analyze the impact of strategic adaptation practices in an environment of uncertainty within the Jordanian Public Security Directorate as an example of institutions facing high levels of instability and change.

## Previous Studies

Studies addressing strategic adaptation in business organizations have diversified in Arabic and international literature. Al-Salami's (2025) study revealed that adaptive leadership contributes to improving crisis management through anticipating challenges and enhancing organizational learning in high-ambiguity environments. Al-Zoubi's (2019) and Hamad's (2021) studies demonstrated that strategic adaptation in its main dimensions (change adoption, environmental interaction, Strategic Synergy) positively impacts institutional performance and assists in confronting economic crises. Renteria's (2025) study confirmed that organizational adaptation is a dynamic interactive process reshaping the relationship between the organization and its environment, while Sadraei & Ahmad (2024) and Al-Zoubi & Al-Azzam (2024) showed that dynamic capabilities and strategic adaptation enhance innovation and competitive capacity in turbulent environments.

In the crisis context, Al-Maaitah and Al-Mahasneh's (2023) study demonstrated that strategic adaptation practices contribute to the effectiveness of security crisis management strategies in the Jordanian Public Security Directorate. Sama'neh and Al-Khaddam's (2016) study confirmed the importance of integrating strategic planning with crisis management methods to enhance preparedness and prevention. Meanwhile, studies by Cedergren (2024), Chanyasak et al. (2022), and Bednar & Atanassova (2022) showed that adopting digital and proactive adaptation practices helped institutions adapt to COVID-19 pandemic crises and achieve business continuity.

Concerning environmental uncertainty, Al-Ghalibi et al.'s (2016) study demonstrated that it represents a mediating variable between strategic leadership and adaptation. Siddiq (2021) confirmed that increased environmental ambiguity affects the

relationship between entrepreneurial orientation and marketing performance. Studies by Hawrysz et al. (2024), Dağdeviren (2024), and Gasbarro (2025) showed that complexity and uncertainty drive institutions to adopt flexible digital solutions to confront risks and improve institutional performance.

Consequently, it becomes clear that strategic adaptation in an environment characterized by uncertainty represents a crucial factor in enhancing performance efficiency and organizational sustainability, particularly in security institutions dealing with complex and variable crises.

### ***What Distinguishes This Study from Previous Studies***

This study addresses a clear scientific gap in Arabic administrative literature by examining the impact of strategic adaptation practices in an environment of uncertainty within an official security context represented by the Jordanian Public Security Directorate. This study differs from others that focused on purely economic or industrial sectors, as it presents a new perspective linking strategic management with the security environment characterized by high degrees of ambiguity and volatility.

The study is also distinguished by applying the quantitative analytical approach using Structural Equation Modeling (Smart PLS-4), ensuring accuracy in measuring relationships between variables and interpreting the actual impact of strategic adaptation practices on environmental uncertainty. Its practical significance emerges from being based on a vital field environment dealing directly with crises and risks, providing its results with a realistic dimension from which the development of adaptation policies and institutional flexibility within Jordanian security institutions can benefit. Thus, the study presents an original contribution linking theory and practice in a contemporary security context.

### **Study Population**

The study population comprises all leaders and managers in the Jordanian Public Security Directorate at the level of police directorates, gendarmerie force commands, and civil defense directorate managers, under the following job titles: (Commander, Directorate Director, Center Chief, Battalion Commander). The total study population reached 351 individuals.

**Table 1: Statistical Description of Study Population Distributed by Job Title**

<b>Job Title</b>	<b>Number</b>
Commander	14
Directorate Director	44
Center Chief	270
Battalion Commander	23
<b>Total</b>	<b>351</b>

Source: Jordanian Public Security Directorate reports in the Hashemite Kingdom of Jordan, 2025.

The researchers distributed survey questionnaires to all study population members electronically. The number of retrieved questionnaires was 284, representing

a response rate of 86.3% of total distributed questionnaires, which is considered good according to statistical conventions and scientific research standards. Table (1) shows the statistical description of the study population by job title.

## Instrument Reliability

Instrument reliability represents one of the indicators for verifying its accuracy and internal consistency. It also refers to objectivity, as the instrument must possess high degrees of precision, mastery, and consistency regarding the information it provides. The researchers employed Cronbach's Alpha internal consistency test to measure the consistency of respondents' answers to all items in the scale. Although there are no standard rules regarding appropriate values for Cronbach's Alpha coefficient, ( $\text{Alpha} \geq 0.70$ ) is considered reasonable from an applied perspective in management and human sciences research (Carrion et al., 2016). Table (2) shows the study instrument reliability results.

**Table 2: Assessment of Internal Consistency Reliability Coefficients for Scales Used in the Study**

Items	Dimension	Number of Items	Cronbach's Alpha Value
1-6	Strategic Change Adoption	6	0.917
7-11	Strategic Synergy	5	0.865

The analysis results in Table (2) demonstrate that Cronbach's Alpha coefficient for measuring strategic adaptation practices dimensions ranged between (0.865-0.917), and for measuring security crisis management strategies dimensions ranged between (0.905-0.932), and for the environmental uncertainty scale (0.948). This is a highly reliable indicator. Based on the preceding analysis, the scales used in the study possess a high degree of internal consistency among their contents and their capacity to achieve study objectives, making them dependable in subsequent analysis phases.

## Results Presentation

### Addressing Research Questions

**Discussion of Results Related to the First Question:** What is the level of strategic adaptation practices and each of its dimensions (strategic change adoption and Strategic Synergy) in the Jordanian Public Security Directorate from the respondents' perspective?

To answer this question regarding the level of strategic adaptation practices in the Jordanian Public Security Directorate from the respondents' perspective, means, standard deviations, and statement importance were calculated, as shown in Table (3).

Table (3) reveals that the overall mean for strategic adaptation practices variable was high, with an overall mean of 4.455. Means ranged between (4.489-4.404) on the five-point Likert scale, indicating that strategic adaptation practices levels in their dimensions, from respondents' perspectives, were high. The dimension of "strategic change adoption" ranked first with a mean of 4.489 and standard deviation of 0.627.

**Table 3: Means, Standard Deviations for Strategic Adaptation Practices Level and Its Dimensions**

Statement Sequence	Dimension	Mean	Standard Deviation	Rank	Level Relative to Mean
1-6	Strategic Change Adoption	4.489	0.627	1	High
7-11	Strategic Synergy	4.421	0.785	2	High
	<b>Overall Mean</b>	<b>4.455</b>	<b>---</b>		<b>High</b>

**Discussion of Results Related to the Second Question:** What are the characteristics of environmental uncertainty in the Jordanian Public Security Directorate from the respondents' perspective?

**Table 4: Means and Standard Deviations for Environmental Uncertainty Items**

Statement No.	Statement Text	Mean	Standard Deviation	Rank	Level Relative to Mean
12	Decision-makers in Public Security Directorate face changes in factors relied upon when making crisis-related decisions	4.160	0.916	1	High
13	Environmental factors affecting Public Security Directorate are characterized by variation and dissimilarity	4.095	0.967	2	High
14	Necessary information related to work requirements in the Directorate lacks sufficient clarity	3.174	1.076	6	Moderate
15	Some decisions in Public Security Directorate are suspended because environmental factors change rapidly, impeding their implementation	3.474	1.071	4	Moderate
16	Public Security Directorate lacks sufficient and clear information about many crisis-related environmental factors	2.885	1.021	8	Moderate
17	New environmental factors appear in Public Security Directorate that were not considered before or during crisis-related decision-making	3.249	1.112	5	Moderate
18	Public Security Directorate sometimes makes decisions without available knowledge of their positive or negative consequences	2.771	1.043	9	Moderate
19	Environmental factors dealt with by Public Security Directorate are characterized as rapidly changing	3.594	1.077	3	Moderate
20	It is difficult for Public Security Directorate to predict fluctuations in service recipient behaviors	3.150	1.148	7	Moderate
	<b>Overall Mean</b>	<b>3.394</b>	<b>---</b>		<b>Moderate</b>

Table (4) shows that the overall mean for environmental uncertainty in the Jordanian Public Security Directorate was moderate, with an overall mean of 3.39. Statement (12) stating: "Decision-makers in Public Security Directorate face changes in factors relied upon when making crisis-related decisions" ranked first with a mean of 4.160 and standard deviation of 0.916. Statement (18) stating: "Public Security Directorate sometimes makes decisions without available knowledge of their positive

or negative consequences” ranked last among this dimension’s statements, with a mean of 2.771 and standard deviation of 1.043.

## Hypothesis Testing

This section includes testing the main study hypotheses and sub-hypotheses emerging from the main hypotheses, analyzing them using appropriate statistical treatments.

However, before commencing data analysis and hypothesis testing, it is essential to verify the suitability of the study model and data used for statistical treatments, primarily represented in analyzing model goodness-of-fit indicators, as follows:

### *Data Suitability Indicators for Statistical Analysis*

Data suitability for statistical analysis is assessed as follows:

**Table 5: Convergent Validity Indicators**

Variables	Average Variance Extracted (AVE)	Composite Reliability (CR)
<b>Dimensions</b>		
Strategic Change Adoption	0.776	0.917
Strategic Synergy	0.742	0.865
Environmental Uncertainty	0.756	0.948

Table (5) reveals that all Average Variance Extracted (AVE) values exceed 0.50, thus being statistically acceptable as they surpass 0.50 for all dimensions used in the study (Hair et al., 2019). Additionally, all Composite Reliability (CR) coefficients are significant and acceptable statistically, being greater than 0.70, where CR coefficient values from 0.60 to 0.70 are considered acceptable in social and human research (Sarstedt et al., 2019).

### *Variance Inflation Factor Test, Tolerance Test, and Skewness Test*

To ensure the absence of high correlation between independent variable dimensions (Multicollinearity), the Variance Inflation Factor (VIF) and Tolerance tests were used for each study dimension, ensuring that VIF does not exceed the value of 10, according to Ringle et al. (2014), and that Tolerance values exceed 0.05.

**Table 6: Variance Inflation Factor, Tolerance, and Skewness Tests**

Dimensions	Tolerance	VIF	Skewness
Strategic Change Adoption	0.498	2.005	0.229
Strategic Synergy	0.401	2.490	0.258

Source: Prepared by researchers based on SmartPLS-4 outputs.

Table (6) demonstrates that VIF values for all independent variable dimensions were less than 10, ranging between (2.005-2.512). It is also observed that Tolerance values for all these dimensions exceeded 0.05, ranging between (0.397-0.498). Therefore, it can be concluded that there is no real problem related to high correlation between independent variable dimensions. Results also indicated that data follow normal distribution, with very low Skewness coefficients not exceeding 0.339 at their upper limit.

**Results of Testing Main Hypothesis One (H01)**

**H01:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of strategic adaptation practices in their combined dimensions (strategic change adoption and Strategic Synergy) on environmental uncertainty in the Jordanian Public Security Directorate.

**Table 7: Results related to testing the first main hypothesis (H01)**

Path	Path Coefficient	Standard Error	T	Sig
Strategic Adaptation Practices → Environmental Uncertainty	0.904	0.1397	6.472*	0.000
	$R^2 = 0.818$	$f^2 = 0.807$	$q^2 = 0.403$	

\*Statistically significant at ( $\alpha \leq 0.05$ ).

The statistical results in Table (7), showing path coefficients and t-values, indicate a statistically significant impact of strategic adaptation practices on environmental uncertainty. The path coefficient reached 0.904, and t-value was 6.472, statistically significant at the significance level ( $\alpha \leq 0.05$ ). Analysis results also indicated that the strategic adaptation practices variable explained 81.8% of variance in environmental uncertainty, according to the determination coefficient ( $R^2 = 0.818$ ). To determine the effect size of strategic adaptation practices on environmental uncertainty, results indicate that effect size reached 0.807 according to  $f^2$  coefficient, classified as (large effect), where  $f^2$  coefficient value exceeded 0.350. It is also observed from the table that  $q^2$  value was 0.403, indicating that strategic adaptation practices possess the capacity to predict the dependent variable-environmental uncertainty-in the Jordanian Public Security Directorate.

According to these results, the null hypothesis (H01) is rejected at this study level, and the alternative hypothesis stating: "There is a statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of strategic adaptation practices in their dimensions (strategic change adoption and Strategic Synergy) on environmental uncertainty in the Jordanian Public Security Directorate" is accepted.



**Figure (1) Illustrates the Results of Testing the Impact of Strategic Adaptation Practices on Environmental Uncertainty in the Jordanian Public Security Directorate**

### Testing Sub-Hypothesis One ( $H01_1$ )

**H01.1:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of strategic change adoption on environmental uncertainty in the Jordanian Public Security Directorate.

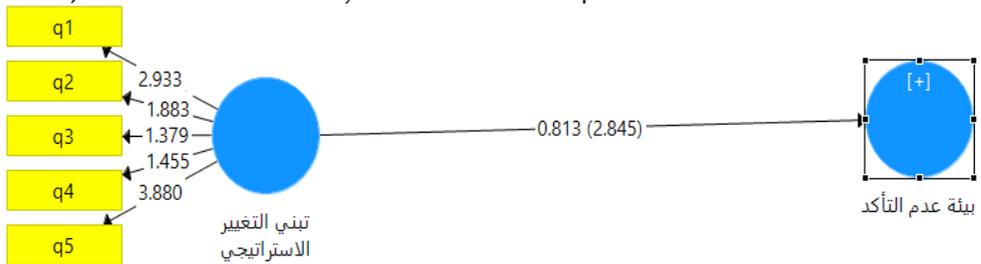
**Table 8: Results of Testing Sub-Hypothesis One ( $H01.1$ )**

Path	Path Coefficient	Standard Error	T	Sig
Strategic Change Adoption → Environmental Uncertainty	0.813	0.2857	2.845	0.000
$R^2 = 0.660$				

\*Statistically significant at ( $\alpha \leq 0.05$ ).

Statistical results in Table (8), showing path coefficients and t-values, indicate a statistically significant impact of strategic change adoption on environmental uncertainty. The path coefficient reached 0.813, and the t-value was 2.845, statistically significant at the significance level ( $\alpha \leq 0.05$ ). Analysis results also indicated that strategic change adoption explained 66% of variance in environmental uncertainty.

According to these results, the null hypothesis ( $H01_1$ ) is rejected at this study level, and the alternative hypothesis stating: "There is a statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of strategic change adoption on environmental uncertainty in the Jordanian Public Security Directorate" is accepted.



**Figure (2) First sub-hypothesis ( $H01_1$ )**

### Testing Sub-Hypothesis Two ( $H01_2$ )

**H01.2:** There is no statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of Strategic Synergy on environmental uncertainty in the Jordanian Public Security Directorate.

**Table 9: Results of Testing Sub-Hypothesis Two ( $H01.2$ )**

Path	Path Coefficient	Standard Error	T	Sig
Strategic Synergy → Environmental Uncertainty	0.878	0.04647	18.891	0.000
$R^2 = 0.770$				

\*Statistically significant at ( $\alpha \leq 0.05$ ).

Statistical results in Table (9), showing path coefficients and t-values, indicate a statistically significant impact of Strategic Synergy on environmental uncertainty. The path coefficient reached 0.904, and the t-value was 6.472, statistically significant at the significance level ( $\alpha \leq 0.05$ ). Analysis results also indicated that Strategic Synergy explained 77% of variance in environmental uncertainty.

According to these results, the null hypothesis ( $H01_2$ ) is rejected at this study level, and the alternative hypothesis stating: "There is a statistically significant impact at the significance level ( $\alpha \leq 0.05$ ) of Strategic Synergy on environmental uncertainty in the Jordanian Public Security Directorate" is accepted.

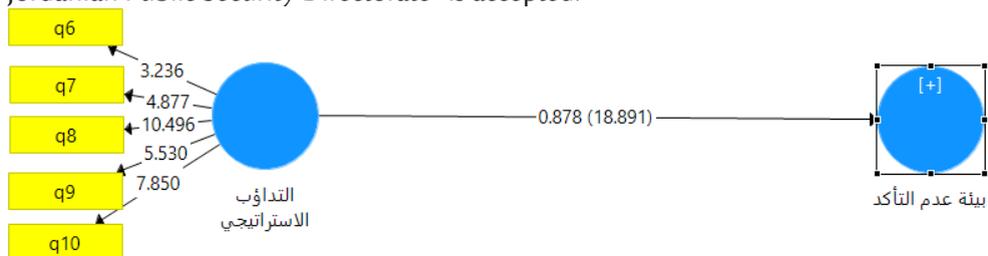


Figure (3) Second Sub-hypothesis ( $H01_2$ )

## Discussion of Study Results

### *Discussion and Analysis of Statistical Results*

The analytical results in the previous chapter contain several important points regarding the capabilities and performance of the Jordanian Public Security Directorate:

### *Conclusions Related to Strategic Adaptation Practices*

- 1- **Strategic Adaptation Practices:** Results demonstrate that the Jordanian Public Security Directorate possesses high capacity to adapt to changes in the surrounding environment. This stems from adopting a strategic change approach, encompassing building multiple scenarios to handle various changes in society and the environment.
- 2- **Expanding Security Concept:** Analysis results embody the Directorate's capacity to expand the security concept to encompass diverse areas, including criminal, economic, social, political, cultural, and environmental security, aiming to meet societal needs and multifaceted challenges.
- 3- **Analysis and Decision-Making:** Results confirm that the security organization possesses the capacity to analyze the external environment, identify opportunities and threats, and build appropriate strategies to confront future changes. It also demonstrates excellence in making rapid decisions when circumstances change.
- 4- **Cooperation and Teamwork:** Results indicate the importance of cooperation and teamwork in achieving security and stability. All Directorate members are

encouraged to share efforts and solve problems collectively, enhancing the Directorate's effectiveness in addressing challenges.

- 5- **Continuous Improvement and Provided Services:** Results show that the Directorate seeks to develop and continuously improve services provided to citizens. Vehicle licensing service is referenced as an example of ongoing efforts to facilitate and improve processes.
- 6- **Directives of His Majesty King Abdullah II:** Results emphasize the Commander-in-Chief of Jordanian Armed Forces, His Majesty King Abdullah II's commitment to enhancing the institutional efficiency and effectiveness of the Directorate to achieve national security and stability.

These results reflect the Jordanian Public Security Directorate's capacity and efforts to adapt to surrounding changes, develop strategies meeting societal needs, and achieve security and stability.

### ***Conclusions Related to Environmental Uncertainty***

Statistical analysis results indicate that the mean of environmental uncertainty in the Jordanian Public Security Directorate was moderate. This suggests that the Directorate possesses understanding of environmental uncertainty characteristics and capacity to make decisions during security crises and surrounding changes that may lead to these crises.

Notably, environmental uncertainty means insufficient available information, placing decision-makers in difficult positions requiring decisions under unclear and ambiguous circumstances. Similar to what occurred with the COVID-19 pandemic, where there was insufficient information about the virus, its transmission rate, treatment methods, and prevention.

Results show that Directorate decision-makers can handle this type of environment. They assess potential situations and make decisions using past experiences and personal judgments due to insufficient information.

Regarding the COVID-19 pandemic, the state of uncertainty and information scarcity caused delays in making necessary decisions and measures. However, simultaneously, the security organization was capable of estimating potential impacts and making constructive decisions to handle the crisis.

Under these circumstances, the capacity to make decisions under uncertainty and limited information represents a vital skill for any organization or security agency. Results demonstrate that the Jordanian Public Security Directorate is capable of effectively handling this environment and making appropriate decisions even under challenges like the COVID-19 pandemic.

### ***Conclusions Related to Hypothesis Testing***

**Results related to testing the first main hypothesis**, regarding the impact of strategic adaptation practices on environmental uncertainty:

Results indicate statistically significant meaningful impact of strategic adaptation practices on environmental uncertainty within the Jordanian Public Security Directorate. This impact stems from the reality that adapting to rapid and unexpected environmental changes requires organizations to keep pace with developments and rapidly modify their activities and strategies to suit changing circumstances. This is more difficult in uncertain environments lacking sufficient information. High-performing organizations adopt adaptation strategies to enable them to confront challenges and opportunities accompanying uncertainty.

Typically, organizations face multiple challenges when dealing with uncertainty, and traditional procedures may be insufficient to handle severe uncertainty levels, particularly during crises like COVID-19. Therefore, organizations need to follow new administrative models enabling them to adapt and respond effectively to changing and uncertain environments.

Strategic adaptation practices also help enhance organizations' capacity to predict potential environmental changes, challenges, and opportunities, enabling them to make more effective decisions and achieve better adaptation to the surrounding environment.

To ensure organizational continuity and success, organizations must possess the capacity to adapt to surrounding changes and variables. Strategic adaptation practices enable organizations to address these requirements and challenges effectively, contributing to their survival and development in a volatile environment.

Adopting adaptive approaches is considered among fundamental strategies for organizations to overcome environmental uncertainty, as it can enhance their flexibility and capacity to adapt to sudden changes and continuous challenges. This enhances the capacity for survival and growth in confronting unexpected challenges.

Consequently, results analysis confirms the importance of strategic adaptation practices in uncertain environments, indicating that organizations adopting this approach are capable of adapting and responding effectively to uncertain challenges and opportunities.

### **Study Recommendations**

Based on the findings, the study recommends the following, representing improvement opportunities:

Strategic adaptation practices are considered critically important in security institutions, as they continuously face new challenges and problems. Therefore, the

capacity to adapt to these challenges is what can maintain the security institution's success and continuity in confronting events.

Following are recommendations for strategic adaptation practices in the Jordanian Public Security Directorate:

- 1- Continue maintaining the level of strategic adaptation practices in the Jordanian Public Security Directorate due to its significant impact on managing security crisis management strategies, particularly as strategic adaptation practices constitute a vital process for ensuring effective response to security challenges and crises facing society. Consequently, adaptation to security crises can become a decisive factor in successfully handling security crises.
- 2- The Jordanian Public Security Directorate should recognize the importance of strategic adaptation practices in dealing with environmental uncertainty, particularly as this environment causes leaders and managers to face uncertainty regarding determining required options or expected outcomes of undertaken actions. Therefore, strategic adaptation practices can assist in efficiently handling environmental uncertainty.
- 3- The Jordanian Public Security Directorate should acknowledge environmental uncertainty characteristics when making security crisis management decisions, as security crisis management officials need to move effectively and rapidly to adapt to changes and sudden events under various security crisis circumstances, requiring identifying fundamental priorities and available options.
- 4- Conduct additional courses and seminars for security crisis management officials in the Jordanian Public Security Directorate to adopt modern and innovative analysis and assessment methods based on strategic adaptation approaches, monitoring various environmental changes that may constitute sources of security crises. Consequently, moving proactively, identifying expected needs and potential challenges, and handling them before occurrence according to a prior security crisis management plan.

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