

## The Role of Organizational Improvisation in Crisis Management Methods: The Moderating Role of Strategic Vigilance

دور الارتجال التنظيمي في أساليب إدارة الأزمات: الدور المعدل لليقظة الاستراتيجية

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### دور الارتجال التنظيمي في أساليب إدارة الأزمات: الدور المعدل لليقظة الاستراتيجية

#### Abstract:

**Objectives:** This study aimed to identifying the role of organizational Improvisation in crisis management methods the moderating role of strategic vigilance.

**Methods:** In order to achieve the study objective, the descriptive analytical method was used, and applied it to a simple random sample consisting of (171) managers, at Jordanian commercial banks.

**Results:** The results revealed that there is a significant effect at the significance level ( $\alpha \leq 0.05$ ) of organizational improvisation with its dimensions in crisis management, it was also found that strategic vigilance influencing the relationship between organizational improvisation and crisis management methods.

**Conclusions:** Based on these results, the study concludes that Jordanian commercial banks practiced organizational improvisation at a medium level due to their dependence on legal regulations and institutional frameworks governing their work, and practices strategic vigilance at a higher level, which enhances their ability to analyze crisis signals , re-distribute , and re-organizing their resources to use them in a timely manner to reduce the crisis effect at the lowest levels, and they practice organizational improvisation in some cases they did not plan for before.

**Keywords:** Organizational Improvisation; Crisis Management Method; Strategic Vigilance; the Jordanian Commercial Bank.

#### المخلص:

الأهداف: التعرف على أثر الارتجال التنظيمي في أساليب إدارة الأزمات والدور المعدل لليقظة الاستراتيجية.

المنهجية: من أجل تحقيق أهداف الدراسة استخدم المنهج الوصفي التحليلي وتم تطبيقه على عينة عشوائية بسيطة تكونت من (171) مديرا في البنوك التجارية في عمان .

النتائج: أظهرت النتائج وجود أثر ذو دلالة إحصائية عند مستوى ( $\alpha \leq 0.05$ ) للارتجال التنظيمي في أساليب إدارة الأزمات، وجود أثر لليقظة الاستراتيجية كعامل مُعدل في علاقة التأثير بين الإرتجال التنظيمي وأساليب إدارة الأزمات .

الخلاصة: خلصت الدراسة إلى أن البنوك التجارية تمارس الارتجال التنظيمي بدرجة متوسطة، لإعتمادها على اللوائح القانونية والأطر المؤسسية التي تحكم عملها، وتمارس اليقظة الاستراتيجية بمستوى أعلى مما يعزز قدرتها على تحليل إشارات الأزمات، وإعادة توزيع وتنظيم مواردها واستخدامها في الوقت المناسب للحد من تأثير الأزمات عليها الأدنى المستويات، وأنها تمارس الارتجال التنظيمي في بعض الحالات التي لم يتم التخطيط لها من قبل.

الكلمات المفتاحية: الارتجال التنظيمي؛ أساليب إدارة الأزمات؛ اليقظة الاستراتيجية؛ البنوك التجارية الأردنية.

## 1 Introduction

Many organizations, especially the banking sectors facing many difficulties and challenges, different types of internal and external crisis, rapid changes, tremendous developments; a turbulent environment crisis vary in their (size, nature, and type), which generating a state of a slowdown in their vital activities, hamper their obligations management, therefore these banks need a deep understanding to their internal, external environment, gathering all information about everything new, take advantage of possible opportunities, and avoid threats as much as possible, they have to change the traditional management methods to use the new trend in management methods that suit the speed of change, quickly respond, flexibly and developments, develop, sustain organizational improvisation capabilities which enable them to deal with crisis, using strategic vigilance as key factors in neutralizing crises, reducing their negative effects on organizations. While addressing the subject of this study, researcher noted that there is a rarity in scientific studies that targeted the previously mentioned topics, less awareness, and less clarity, about the nature and the relationship between these topics, strategic vigilance, and organizational improvisation in crisis management. Many previous studies recommended to studying the impact of organizational improvisation in crisis management, such as (Miner, 2020; Ciuchtaa, 2021; Arias-Perez, 2020), others stressed the importance of strategic vigilance in enhancing the performance of business organizations in dealing with their crisis such as (Albadrany, 2023; Kuipers & Wolbers, 2021).

## 2 Literature Review

### 2.1 Strategic Vigilance

Strategic vigilance is an essential practice that enables companies to capture information from organizations environment, which has been affected by the sustainability revolution (Salguero et al., 2019). The researchers (AlSayegh et al., 2017; Fadhiela & Dawood, 2018; Mahmoud & Mahdi, 2019) point out the importance of strategic vigilance as a mechanism for monitoring, following up, obtaining information for decisions that enhance the competitiveness of institutions, and the customer's satisfaction. Strategic vigilance is an integrated monitoring process system searching information from different parties related to organizations (commercial, competitive, technological, and environmental), which enables the organizations to make strategic decisions, and achieve long-term excellence (Kasmi, 2021).

Strategic vigilance is the ability of the organization to remain aware, alert to detect changes, seize opportunities, abort threats by collecting, analyzing, sharing information about internal, and external environments, achieve the organization's goals with maximum efficiency and effectiveness (Hadi & Mizher, 2020).

Strategic vigilance means: inquiring about technological innovations, and competitors' behaviors and strategies new consumer desires, monitoring the environment to access, test, and disseminate information to improve decisions in the organization (Al-himyari et al., 2020).

#### 2.1.1 Types of Strategic Vigilance

##### 2.1.1.1 Technological Vigilance

Technology vigilance has become an essential strategic variable, a constant element of excellence (Fadhiela & Dawood, 2018). Technological vigilance refers to monitoring, analysis the organizations technological environment to identify opportunities, and threats. knowing new technologies related to thier work activity, enhance competitiveness in the event of its exploitation by acquiring technological innovations (Al-Yasiri et al., 2022). Technological vigilance is the activity that use legitimate techniques to monitor what is happening in the scientific, technical and technological environment, through collection, organization, analysis, and dissemination of strategic information, enabling the institution to predict, and facilitate these developments in the process of creativity (Qadri, 2019).

##### 2.1.1.2 Environmental vigilance

This type of vigilance Includes all the remaining elements at the organization environment, as a comprehensive vigilance concerned with monitoring economic, political, legal, demographic and cultural developments that effect in one way or another (Al-Yasiri et al., 2022). Environmental vigilance seek to a vigilance, and continuous

monitoring by collecting information related to all environmental events, developments that occur in organizations surroundings. The implementation of environmental vigilance is difficult task for organizations, since it concerns with a wide aspect of environment, organizations must deal with information with great care in terms of analyzing, processing, sending it to decision-makers, so they in turn determine the basic information at the vigilance process (Kasim et al., 2020).

### 2.1.1.3 Competitive vigilance

It's a set of activities which organizations are used to identify its current or potential competitors, financial, and economic terms (workers, brands, investments, projects in progress), this type of vigilance aims to monitor the strengths, weaknesses of the organization in terms of manufacturing costs, knowing the competitors strategies that will effect the organizations future that can be anticipated (Shawabkeh, 2019). It's the process in which the organization can determine their potential & current competitors, by collecting, analyzing qualitative & quantitative information to recognize competitors' strategies, abilities, goals, and performance. Further, to determine (R&D) efforts, and all relations with products, markets, suppliers, and new technology, it's called competitive inquiry which strengths and weaknesses are identified through, it should be noted that competitive vigilance focuses on both current and new entrants competitors (Alshaer, 2020).

### 2.1.1.4 Marketing vigilance

This type of vigilance related to defining customers needs and responding to it, building long-term relationships with suppliers, use suppliers and customers for the development of new goods and services, always marketing vigilance information intersects with competitive vigilance information (Omran & Abuongem, 2019). Marketing vigilance as activity interested with studying the commercial relationship between the organization suppliers and customers, monitoring all parts of the market, identifies strengths or weaknesses during dealings with suppliers, customers, follows up on the development in consumers' needs, suppliers' behaviors offers, realizes their marketing skills, and marketing growth rates (Al-Shimla & Al-Bayati, 2020).

## 2.2 Crisis Management

World today witnessing a large, and different forms of crisis, vary in their extent occurrence whether at the individual, or organizational levels, at local, national or global level, the occurrence of any a crisis organization has become a postulate matter which characterized by the acceleration of its (environment, economic, social, political changes), only the organizations that can avoid, or facing crises, or overcome, and reduce the crisis effects can be survive, avoiding or facing crisis's requires a new management, management crisis's is one of the concepts imposed by management science development as a result of the acceleration of environmental changes the complexities that have emerged within business organizations, and the expansion of their sizes, so to understanding the concept of crisis management, we must review the concept of crisis which mean every non-routine, unexpected, sudden event that creates a state of uncertainty, and threatens the basic organizational goals, cause lose financially, effect organizational reputation, and status among competitors (Salvador & Ikeda, 2018).

Crisis is an abnormal serious situation, threatening the basic organization structures, or its values, standards, represent as a tool to pressure on every uncertain circumstances, which necessitates making firm decisions (Abed et al., 2018). There are three main categories of crisis: the first one crisis in organizations, which take the form of threaten form, concrete and direct events that interfere with organizational processes, and performance, the second one is the organization outside crisis that occurs outside the organization, but still remains under control, involves the organization through its responsibilities, and the third one crisis that happened around the organization, that do not pose a threat or tangible harm, but appear quickly, causes a deficit in the organization performance (Kuipers & Wolbers, 2021).

Crisis management as a scientific administrative methodology used to harness human efforts, tools, equipment, modernist techniques to face crisis, and assess their effects (Al-asmari & Frraj, 2022), the accurate assessment of crisis type, and its extent, helps organizations to develop their performance, prevent the occurrence of crisis as well as helping them to put detailed plan to face, and manage the future crisis (Paraskevas & Quen, 2019).

Organizations experienced all kinds of crisis which characterized with the most notably violent and complex surprise, carrying a serious threaten to the existing situation, the speed in the succession of events, and their

consequences, generating great pressure as it reaches the time available to deal with the crisis, and serious consequences, increasing the state of stress, anxiety, confusion, fear of losing control (Al-Jubouri & Alkadem, 2020).

There are many goals for managing a crisis, including working to prevent the crisis, eliminate its causes, providing scientific capabilities that stabilize the sources of threat, predict the imminent dangers of the organization, optimal investment of resources to reduce its harmful impact, the need to determine the roles of the crisis management team at the safety time, to prevent their spread, reduce their damage at the lowest possible cost (Al-Alusi et al., 2020).

There are a many mechanisms that contribute to activate crisis management to achieve its goals, use the scientific method, avoiding randomness, improvisation, reactions, accurate scanning of internal, and external environment to pick up warning signs, prepare a list of crisis expected to occur in the light of warning signals, the ability to avoid sudden, and time pressure, the possibility of determining an appropriate strategy to crisis, the ability to learn lessons from the occurred crisis to benefit from it in the future (Albadrany, 2023).

### 2.2.1 Management Crisis Methods

There are five stages of management crisis methods as:(Mezaal, 2020; Alajmi & Al-Qallaf, 2018).

**the detection of warning signals:** The organizations targeted by crisis have a high ability to block these signals that suggest the warning of the imminent occurrence of crisis in the organization, organizational managers who targeted by crisis punishing everyone who carries them ,their slogan is no news is good news , this is a sign that the crisis unlike organizations that are ready to face crisis, which have a normal feeling, knowing the signals of the proximity of any crisis referred to the knowledge of the accurate stage indicators, and symptoms that may predict the limits of a crisis, but it is difficult to distinguish between the signals that are specific to each crisis from the other readiness.

**Preparedness and Prevention:** The goal of this stage is to preparations, to discovered weaknesses, attempt to minimize the circle of possible risks, organizations must have more than one probability of various scenario that may guide, and test all these scenarios, the role of each individual becomes known to him, organization will be fully prepared, organizations to be adequately prepared needs to follow the necessary methods to protect from crisis, this confirms the importance use of early warning signals.

**Damage containment:** This stage aims to stop the repercussions of the effects caused by the crisis, unfortunately, it is not to prevent the crisis but to limit its damage, prevent it from spreading as much as possible to preserve the other intact parts that have not yet been affected by the crisis, if any, and not all crises can be contained, it is sometimes difficult to contain a crisis.

**Activity recovery:** Organization must working on preparing, and equipping programs that have proven their readiness that already tested, at short or long-term, and hence it is difficult to respond to programs ,and solutions that have not been proven effective, at this stage activity is restored from several aspects, especially these that have been lost, such as assets, returning to the organizations targeted by crisis, most of them make a mistake, they focus on the internal crisis processes, ignoring external parties, dealing with this stage of organization increases the intensity, cohesion to face a specific threat, and focus more on their tasks.

**Learning:** The last dimension aims to prevent the recurrence of the crisis, and benefit from previous lessons that happened, ensure the preparation of high-level equipment in the future, organizations do not have to throw bitter experiences into oblivion but rather review previous experiences because learning is a vital thing, maybe it is painful because it evokes painful memories that happened before to the organizations.

### 2.3 Organaizational Improvisation

The organizational improvisation concept differs among organizations according to their environment, it is one of the emergency strategies used to face changes and threats posed by the organizational environment, organizational improvisation is considered as one of the capabilities that organization's individuals must possess to qualify them to find solutions to urgent problems that organizations within their current strategies are unable to, with these capabilities individuals possess, organizations can go beyond the routine, facing challenges and risks, by adopting the organizational improvisation to respond to such cases, and exceptional difficulties immediately, and creatively , leading to positive, successful results reflected the development, and progress of organization competitive environment (Al-Dhabawy & Al-Shaalan, 2019).

Organizational improvisation is a form of intuition that directs work to be done in a momentary manner, without pre-thinking or evaluation process, it requires insight and quick wit, technical and mental capabilities, it is one of the thinking ways helps managers to understand, analyzed complex and dynamic organizational decisions, actions that cannot be managed using traditional routine procedures, this required flexible, rapid procedures that enable organizations to control sudden environmental changes, organizational improvisation is the process of flexible decision-making in a timely, outside the framework of the organizational routine contexts in exceptional circumstances to face threats or exploit available opportunities (Al-Balaghy & Al-Zubaidi, 2021).

Organizational improvisation represents a creative behavior to deal with sudden problems facing organizations, reflects their ability to solve emergency problems that are difficult to solve through pre-established strategies, through a set of actions that take place spontaneously by those in charge of managing the organization to form a rapid response to unexpected opportunities, challenges, and problems (Miner, 2020, Ciuchta, 2021 & Arias-Perez, 2020).

The organizational improvisation importance comes from the in-effectiveness of pre-established strategies to deal with unexpected events resulting from changes in business environments, it is one of the organizational learning methods that enables them to take charge of these changes in the workplace environment, respond quickly to it, organizational improvisation motivates managing the organization at innovation and excellence work (Miner, 2020).

Maintains a degree of compatibility with the environment through rapid response, adaptation to changes, increases the ability of organizations to learn, motivates them, gain the ability to face important events, organizational improvisation has effective results on performance through encouraging the innovation among organization members (Al-Balaghy & Al-Zubaidi, 2021).

Organizational improvisation has many dimensions the most frequent ones in previous studies, the most prominent is:

**Building solutions:** In the sense of the ability of organizations to build quick solutions to the sudden problems they face by relying on their available, unused resources to seize new opportunities, and solve problems (Al-Dhabawy & Al-Shaalan, 2019).

**Intuition:** Intuition is related to the innate ability of the human mind, which enables owners to think sub-consciously, present appropriate ideas when needed, make improvised, prudent decisions to solve problems, seize opportunities, and interpret matters within the work environment, which cannot explain reason, and logic sometimes (Al-Marzouq, 2021)

**Innovation:** Innovation related to the mental characteristics of the individual, which enables them to produce new system, or program for the organization, contribute to finding new solutions that not been known before (Scaglione, 2019).

**Adaptation:** It refers to the organization's ability to adapt with the external variables it faces, in a way that ensures the change of work paths according to these variables, by preparing advance plans to deal with unexpected circumstances and events that organizations face (Gojny-Zibe, 2021).

**Risk management:** This includes the formation of work teams of experienced, skilled, and knowledgeable individuals who can quickly assess the expected risks as a result of improvised decisions, and through the inclusion of risk management in its culture and policies, translating them into effective strategies to confront them (Suleiman, 2022). Organizational improvisation importance as a creative and thoughtful process focuses on adapting the organization's operations to a turbulent, fast-changing business environment, and addressing problems in a timely manner by providing creative solutions based on available resources, applying theories to come up with, and decide on existing implementation alternatives to solve specific problems immediately when resources are scarce, with no planning ability, and little time to obtain resources when determining their need (Al-Issa, 2022 & Al-omoush, 2021).

### 3 Method

This section should provide sufficient details of the experiment, simulation, statistical test or analysis carried.

### 3.1 Research questions and framework

Business organizations, especially those working in the banking sector face many difficulties challenges, rapid changes, and tremendous developments, which hamper their management obligations, they have to modify or change the traditional management methods they used, to use modern management methods that suit the speed of change, and respond quickly, flexibly to changes and developments, including the use of organizational improvisation and strategic vigilance.

While addressing the subject of this study, researcher noted that there is a rarity in scientific studies that targeted the previously mentioned topics, and there is a lack of awareness of the importance, clarity of the nature, the relationship, the role played by strategic vigilance and organizational improvisation in crisis management, the study problem formulated by answering the main question (What is the role of organizational improvisation in management crisis methods with the presence of strategic vigilance as a moderating variable in Jordanian commercial banks), and answer other sub-questions:

- What is the level of practice organizational improvisation in commercial banks?
- What is the level of practice strategic vigilance in commercial banks?
- What is the impact of organizational improvisation in crisis management methods?
- What is the impact of strategic vigilance in improving the impact of organizational improvisation on crisis management methods?

### 3.2 The Study model

According to the study problem, its objectives and variables, a hypothetical scheme was developed in which the most important influence and correlation relationships addressed by the research were identified, as shown in Fig. 1.

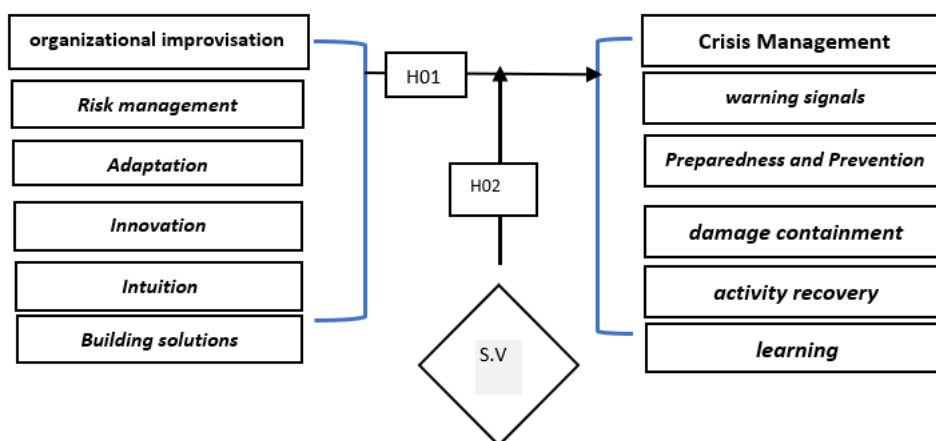


Fig. 1: The study model developed by the researcher.

**Organizational improvisation** :which were selected according to the opinions of the authors and researchers such as: (Miner, 2020; Ciuchta, 2021; Arias-Perez, 2020).

**Crisis Management**: according to the opinions of authors and researchers such as: (Albadrany, 2023; Kuipers & Wolbers, 2021)

**Strategic vigilance**: according to the opinions of authors and researchers such as: (Alshaer, 2020; Shawabkeh, 2019)

#### 3.2.1 Study Hypotheses

**(H01)**: There is no statistically significant impact at the level of significance ( $\alpha \leq 0.050$ ) of organizational improvisation by its dimensions (Risk management, Adaptation, Innovation, Intuition, building solutions) on crisis management methods by its dimension (warning signals, Preparedness and Prevention, damage containment, activity recovery, learning) in the Jordanian commercial banks.

**(H02)**: There is no statistically significant impact at the level of significance ( $\alpha \leq 0.050$ ) of organizational improvisation by its combined dimensions on crisis management methods by its combined dimension with the presence of strategic vigilance as a moderating variable in the Jordanian commercial banks.

### 3.3 The target population, sample description, and data collection

This study is designed to determine the role of organizational improvisation in crisis management methods through the presence of strategic vigilance in Jordanian commercial banks, (13) banks were chosen, the study population consisted of all managers in these banks approximately (410) managers, simple random sample with a size of (199) managers was adopted, the questionnaires were distributed, (85.9 %) was retrieved, the final returned questionnaire is (171), this is statically acceptable percentage (Al-Najjar et al., 2018).

The primary data was collected using a questionnaire designed as follows: the first part: includes the personal and functional characteristics of the sample members (gender, age, educational qualification, job title, and experience). Part two: the questions that measured the independent variable (organizational improvisation) after reviewing several previous studies (Jaazi & Jamal 2021; Waswas & Jwaifell., 2019). Part 3: measured the dependent variable (crisis management methods) after reviewing several previous studies (Abu Rumman& Alzeyadat (2021). Part 4: questions that measured the moderating variable (strategic vigilance) after reviewing a previous study (Miner, 2020, Ciuchta, 2021 & Arias-Perez, 2020). Each respondent rated their degree of agreement with the statements in the questionnaire using a five-point Likert scale (strongly agree= 5, agree= 4, neutral= 3, disagree= 2, and strongly disagree= 1). The secondary data include books, previous studies, academic journals, etc., to formulate a hypothesis, and determine the theoretical framework of the study.

## 4 Results

### 4.1 Validity and Stability of the Study Measurement

Verifying the validity, stability, and reliability of the study instrument to measure the paragraphs internal consistency, it was presented to academics, and specialists in the field of crisis management, strategic vigilance, based on their suggestions and observations, the required amendments were made, included some words of the paragraph according to structure, language, and content. Cronbach's alpha coefficient analysis showed the stability and reliability of the study tool, as the result of stability coefficient was more than (70%), which is a statistically acceptable percentage, Table (1) (Al-njjar, 2020).

**Table (1):** The values of (Cronbach's Alpha Coefficient) for the paragraphs study instrument.

Cronbach Alpha	paragraphs number	Study dimensions	N.
.783	5	Building solutions	1
.707	5	Intuition	2
.716	5	Innovation	3
.794	5	Adaptation	4
.770	5	Risk management	5
.750	25	Organizational Improvisation	6
.787	5	the detection of warning signals	7
.752	5	Preparedness and Prevention	8
.755	5	damage containment	9
.731	5	activity recovery	10
.718	5	learning	11
.763	25	crisis management methods	12
.717	25	Strategic vigilance	13
.899	75	ALL DATA	14

**Source:** Prepared by the researcher based on the statistical analysis program (SPSS).

Table (1) indicates that all the values of Cronbach alpha coefficient of the paragraphs (independent, dependent, moderate) variables ranged between (.731 - .899) which exceeded the minimum allowable value (70) %, this is a good indication of the existence of internal consistency, stability, and reliability to statistical analysis. The Cronbach's alpha value for all the paragraphs were (0.899) which is greater than (0.70%), indicates that there is general internal consistency of study dimensions' variables (al-Najjar et al., 2020).

### 4.2 Linear Correlation Testing

A multi-collinearity test has been conducted to reach the degree to which one of the independent variables is annotated by another independent variable, the results were as follows in Table (2).



**Table (2):** liner correlation testing value.

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Building solutions	.608	1.645
Intuition	.340	2.938
Innovation	.352	2.839
Adaptation	.533	1.877
Risk management	.442	2.265

Table (2) shows that all the values of variation inflation coefficient (VIF) are greater than (1) and less than (10), all the (tolerance) value is greater than (0.10), the general flatness rule is greater than (1) for the inflation coefficient and less than (0.1) for (tolerance), this indicates the absence of a linear correlation between the study independent variables (Sekaran & Bougei, 2016).

#### 4.3 The correlation between the independent variable dimension

A multiple linear correlations were tested; (Pearson) correlation coefficients were used to detect the problem of the multiple linear correlations between all the sub-independent variables as in Table (3).

**Table (3):** Correlation matrix of sub-independent variables.

Correlations	Building solutions	Intuition	Innovation	Adaptation	Risk management
Building solutions	1				
Intuition	.595**	1			
Innovation	.481**	.749**	1		
Adaptation	.481**	.623**	.608**	1	
Risk management	.513**	.652**	.697**	.583**	1
N	171	171	171	171	171

It is clear from table 3 that the values of Pearson's correlation coefficients for the sub-variables of the (independent) ranged between (.481\*\* - .749\*\*) which is less than (0.80), the highest value of the correlation coefficient was between the (innovation) and (Intuition) sub- dimension, this indicates the absence of the phenomenon of multiple linear correlations (Gujarati, 2017).

#### 4.4 Data Analysis for Study Sample Characteristics and Hypothesis Testing

This part of the study describes the functional and demographic characteristics of the study sample members, Table (4):

**Table (4):** Duplicates and percentages of the demographic characteristics.

Variable	Category	Percentage	Frequency
Gender	Male	63.2	108
	Female	36.8	63
Age	Less or 30 years	21.0	36
	31 - 40 years	24.0	41
	41 - 50 year	39.2	67
	51year and above	18.8	27
Career level	Managers	100.0	100.0
qualification	Diploma	5.8	10
	Bachelor's	75.4	129
	Highly study	18.7	32
work experience	Less or 5 years	20.5	35

6 - 10 year	17.0	29
11 -15 year	25.1	43
16 and above	37.4	64
<b>Total</b>	<b>100.0</b>	<b>171</b>

Based on the results of the analysis in Table (4). It is clear that most respondents are male, middle-aged, managers, have the appropriate qualification, have sufficient experience in their field of work, which gives a positive indication of their ability to answer the questionnaire questions, and contributes to achieving the study objectives.

#### 4.5 Descriptive Statistics for Study Main Variables

To identify the attitudes of the study sample members about the main variables of the study model, arithmetic averages and standard deviations, level of relative importance were used for each variable, the results as in table 5.

**Table (5):** Arithmetic averages and standard deviations.

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>
Building solutions	171	3.0	5.0	3.912	.4708
Intuition	171	3.0	5.0	3.585	.5175
Innovation	171	3.0	5.0	3.696	.5098
Adaptation	171	3.0	5.0	3.848	.4854
Risk management	171	3.0	5.0	4.088	.4832
Organizational Improvisation	171	3.0	5.0	3.924	.3069
the detection of warning signals	171	3.0	5.0	3.865	.4722
Preparedness and Prevention:	171	3.0	5.0	3.749	.4484
damage containment	171	3.0	5.0	3.924	.5424
activity recovery	171	3.0	5.0	3.772	.4479
learning	171	3.0	5.0	3.953	.5403
crisis management methods	171	3.0	5.0	3.930	.2986
<b>Strategic vigilance</b>	<b>171</b>	<b>3.0</b>	<b>5.0</b>	<b>4.088</b>	<b>.3037</b>
<b>Valid N (list wise)</b>	<b>171</b>				

Table (5) shows that the statistical values of the independent variables ranged between (3.585- 4.088), risk management came at the first place at higher of interest with higher mean value ( 4.088), while Intuition came at the last place of relative importance with medium mean value (3.585), as it seems that all organizational improvisation statistical values shows the higher of relative importance (3.924), this indicates strong interest with organizational improvisation at Jordanian commercial banks, we note from Table (5) that the statistical values of the dependent variables crisis management methods came at a highly relative of importance with mean value (3.930), finally Strategic vigilance came at a highly relative of importance with (4.088) mean value (Hire et al., 2018).

#### 4.6 The hypothesis Testing

**(H01):** There is no statistically significant impact at the level of significance ( $\alpha \leq 0.050$ ) of organizational improvisation by its dimensions (Risk management, Adaptation, Innovation, Intuition, building solutions) on crisis management methods by its dimension (warning signals, Preparedness and Prevention, damage containment, activity recovery, learning) in the Jordanian commercial banks.

**Table (6):** Results of the simple linear regression analysis for the first main hypothesis.

Coefficients					ANOVA			Model Summary		variable
Sig t*	T	Standard error	$\beta$	Statement	Sig F*	DF	F	R <sup>2</sup>	R	
0.000	3.975	.042	.193	CM	.000	5	158.150	.827	.910 <sup>a</sup>	OI

\* The effect is statistically significant at ( $\alpha \leq 0.05$ ).

Table (6) shows the results of statistical test for the main hypothesis model, as it noted from the model summary that the value of correlation coefficient ( $R=0.910$ ) represent a sign of high correlation between organizational improvisation and management crisis methods, the value of coefficient determination for (OI) is ( $R^2 = .827$ ), this means that (OI) has explained (82.7%) of variance on (CM) with its combined dimensions, which indicates a strong positive explanatory power.

The analysis of variance (ANOVA) showed that the calculated value ( $F=158.150$ ) at the level of significance ( $Sig.=.000$ ), confirming the significance of the regression at the level of  $\alpha \leq (0.050)$ , ( $DF= 5$ ). Table (6) Indicate that the ( $\beta$ ) value for individual relation between both variables (dependent, independent) was (.193), (t) value amounted to (3.975) at the significance level ( $Sig.t=.000$ ). Therefore, we can't accept the first main null hypothesis accepting the alternative one that says: "There is statistically significant impact at the level of significance ( $\alpha \leq 0.050$ ) of organizational improvisation by its dimensions (Risk management, Adaptation, Innovation, Intuition, building solutions) on crisis management methods by its dimension (warning signals, Preparedness and Prevention, damage containment, activity recovery, learning) in the Jordanian commercial banks.

**(H02):** There is no statistically significant impact at the level of significance ( $\alpha \leq 0.050$ ) of organizational improvisation by its combined dimensions on crisis management methods by its combined dimension with the presence of strategic vigilance as a moderating variable in the Jordanian commercial banks.

The results of the analysis (Hierarchical Multiple Regression) are as shown in Table (7):

**Table (7):** Model summary and variance analysis of the second main hypothesis.

Model 2	Model1	Statement	
.931 <sup>b</sup>	.0910 <sup>a</sup>	(R)	Model Summary
.866	.827	(R <sup>2</sup> )	
.039	.827	(R <sup>2</sup> ) change	
47.325	158.150	(F change)	
1	5	(DF1)	
164 <sup>a</sup>	165 <sup>a</sup>	(DF2)	
.000	.000	(Sig F.) change	ANOVA
13.127	12.541	(sum of square)	
6	5	(df)	
176.681	158.150	(F.)	
.000 <sup>c</sup>	.000 <sup>b</sup>	(Sig F.)	

The results of Table (7) shows the results of multi-hierarchical regression based on two models, from the model summary at first step based on the first model, there was a statistically significant effect to organizational improvisation by its combined dimensions on crisis management methods by its combined dimension, the values of ( $\Delta F=47.325$ ) at level of significance ( $\Delta sig F =0.000$ ), which is less than (.050), the value of the determination coefficient ( $R^2=.827$ ) this indicates that the organizational improvisation has explained (82.7)% of the variation in crisis management methods, from the analysis of variation of a nova it was found that the calculated (F) value at the first model reached (158.150) at the Sig level  $F= (0.000^b)$ , this confirms the significance of the regression at the level of ( $\alpha \leq 0.050$ ) at the degree of freedom ( $dF=5$ ).

As can be seen from the model summary in Table (7) in the second model, at the second step, the variable of strategic vigilance was introduced for the regression model, the value of the determination coefficient  $R^2$  (change) increased by (.039 %), this percentage is statistically, the value of the change in the Fisher value (Change's) has reached (47.325) at the Sig level.  $F$  change = (.000), which is less than (0.050), confirms the significance of the decline at ( $\alpha \leq 0.050$ ). A nova variance analysis table shows that the (F) value of the second model reached (176.681) at the Sig level.  $F= (0.000^c)$  at a degree of freedom ( $dF = 6$ ), this confirms the significance of the regression at the level of ( $\alpha \leq 0.050$ ). Therefore, we can't accept the second main null hypothesis accepting the alternative one that says " There is statistically significant impact at the level of significance ( $\alpha \leq 0.050$ ) of

organizational improvisation by its combined dimensions on crisis management methods by its combined dimension with the presence of strategic vigilance as a moderating variable in the Jordanian commercial banks.

**Table (8):** Coefficients value.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.039	.142		.273	.785
	Building solutions	.109	.034	.133	3.214	.002
	Intuition	.044	.049	.049	.890	.375
	Innovation	.558	.055	.558	10.237	.000
	Adaptation	.113	.041	.122	2.754	.007
	Risk management	.167	.042	.193	3.975	.000
2	(Constant)	.269	.133		2.019	.045
	Building solutions	.016	.033	.020	.493	.623
	Intuition	.048	.043	.055	1.114	.267
	Innovation	.483	.049	.483	9.779	.000
	Adaptation	.067	.037	.072	1.813	.072
	Risk management	.073	.040	.084	1.833	.069
	Strategic vigilance	.382	.055	.344	6.879	.000

It was shown from Table (8), that beta value of the coefficients first model, Building solutions  $\beta=(.133)$ ,  $t=(3.214)$  at  $Sig=(.002)$  which is significant, intuition value  $\beta= (.049)$ ,  $t= (0.890)$ ,  $Sig=(.375)$  which is no significant, innovation  $\beta=(.558)$  and the value of  $t=(10.237)$  at  $sig=(.000)$  which is significant, adaptation  $\beta=(.122)$  and the value of  $t=(2.754)$  at  $sig=(.007)$  which is significant, risk management  $\beta=(.193)$  and the value of  $t=(3.975)$  at  $sig=(.000)$ , which is significant, from the above it turns out that four paths of the path of the first model are significant, and this proves the significance of the regression coefficients.

Table (8) showed , that beta value of the coefficients in second model, Building solutions  $\beta=(.020)$ ,  $t= (0.493)$  at  $Sig=(.623)$  which is no significant, intuition value  $\beta= (.055)$ ,  $t= (1.114)$ ,  $Sig=(.267)$  which is no significant, innovation  $\beta=(.483)$  and the value of  $t=(9.779)$  at  $sig=(.000)$  which is significant, adaptation  $\beta=(.072)$  and the value of  $t=(1.813)$  at  $sig=(.072)$  which is no significant, risk management  $\beta=(.084)$  and the value of  $t=(1.833)$  at  $sig=(.096)$ , which is no significant, from the above it turns out that one paths of the path of the second model are significant, and this proves the significance of the regression coefficients.

Table (8) showed that the beta value of the coefficients, strategic vigilance  $\beta= (.344)$  at  $t= (6.879)$  at  $sig= (0.000)$  which is no significant. So we can't accept the second main null hypothesis and accept the alternative hypothesis that: " there is a statistically significant effect at the level of  $(\alpha\leq 0.050)$  of strategic vigilance in improving the impact of organizational improvisation by its combined dimensions on crisis management methods by its combined dimension in the Jordanian commercial banks".

## 5 Discussion and Conclusions

The results of study sample analysis indicated that Jordanian commercial banks employed middle-aged males more than females, with a first university degree, at higher administrative levels, to benefits from these positive economically productive youth energies, with ambitions to successes at an early age, which contributing banks' sustainability, improving decision-making mechanisms.

The results of the analysis showed a positive relationship influence of organizational improvisation in crisis management methods and this is representing a good interest with organizational improvisation by the induced sample, as building a solution came first, then adaptation, then innovation, then intuition. this result consisted with (Alshaer, 2020) study.

Organizational improvisation explains (82.7) of variation in crisis management methods, this reflect the positive explanatory power, this a good indicator of Jordanian commercial banks interest with scanning their environment, monitoring opportunities and threats, identify strengths and weaknesses, maintain information security, depended on the legal regulations and instructions governing their work.

The results of the study showed that there is a good understanding of the research sample of the importance of crisis management, crisis management is quite well practiced, the study proved that all its dimensions have come high level in terms of relative importance, respectively, where strategic vigilance came first, then crisis management methods, and finally organizational improvisation with arithmetic mean (4.088), (3.930), (3.924).

The results of the analysis showed that strategic vigilance has a positive influence in relationship influence of organizational improvisation in crisis management methods the results showed that strategic vigilance through its dimensions contribute at increasing, improving the efficiency of commercial banks in the field of crisis management, the relations of influence are significant by (3.9%) of the variance to raise the total interpretation from (82.7%) to (86.6%) of the variance in crisis management methods, this result consisted with (Al-Asmari & Farraj, 2022) study.

### Recommendations:

Based on the previous results, the study recommended the Jordanian commercial banks:

- Established a specialized units or cells for organizational improvisation, with specialized knowledge and experience in dealing with various crisis, planning the necessary scenarios.
- Development of improvisation processes in crisis phases that require rapid action and quick decision-making, (the stage of detection of early warning signals, the stage of preparedness and Prevention) decision through conducting training courses and workshops.
- Create an organizational memory database that contains previous experiences, solving problems methods, learned lessons to be a basic base to start solve and address problems, facilitate workers' access to the information they need in crisis management.
- Adopting a strategy that can contribute to strengthening improvisational work practices that involve adaptation, and innovation to reach the highest levels of efficiency and effectiveness in the bank's performance.
- Strengthen strategic vigilance mechanisms in order to monitor everything related to its competitors, their weaknesses and strengths, their future goals, and their strategies followed
- Conducting further studies on various topics of strategic mindfulness, organizational excellence and entrepreneurship, strategic foresight, using other variables, or conducting them in different workplaces or different sectors.

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