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THE RELATIONSHIP BETWEEN CRISIS RESPONSE AND ORGANIZATIONAL PERFORMANCE IN UMM AL-QUWAIN POLICE DEPARTMENT IN THE UAE: THE MODERATING ROLE OF ARTIFICIAL INTELLIGENCE

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Universiti Utara Malaysia

MASTER OF PUBLIC MANAGEMENT
UNIVERSITI UTARA MALAYSIA
2026

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A thesis submitted to the Ghazali Shafie Graduate School of Government, Universiti Utara Malaysia, in fulfilment of the requirement for the Degree of Master of Public Management

Kolej Undang-Undang, Kerajaan dan Pengajian Antarabangsa
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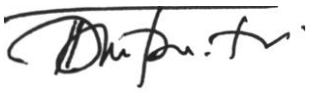
Pengerusi Viva *(Chairman for Viva)*	:	**ASSOC. PROF. DR. ABD. RAHIM ROMLE**	Tandatangan *(Signature)*	
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ABSTRACT

This study aimed to examine the effect of crisis response strategies on organizational performance and to assess the moderating role of Artificial Intelligence (AI) in this relationship, particularly within the context of public safety. The specific objectives included analyzing how crisis response influences the dimensions of effectiveness, efficiency, and responsiveness, and evaluating how AI enhances these effects. A quantitative research design was employed. Data were collected using a structured questionnaire distributed to personnel of the Umm Al Quwain Police Department via a non-probability quota sampling technique. Out of 708 questionnaires distributed, 369 usable questionnaires were returned, constituting the final sample for analysis. Data were analyzed using SPSS software through correlation and regression analyses to test the study's hypotheses. The findings revealed that crisis response has a statistically significant positive effect on all three dimensions of organizational performance. Furthermore, AI was found to be a significant positive moderator, strengthening the relationship between crisis response and performance by enabling faster decision-making, improving communication, and facilitating more coordinated actions during crises. This research contributes to the theoretical body of knowledge by extending the application of Situational Crisis Communication Theory (SCCT) to the domain of AI-enhanced crisis management. It provides empirical evidence for the transformative role of intelligent technologies in public sector crisis response frameworks. Practically, the study underscores the critical importance of integrating AI-based tools into organizational crisis management strategies. It is recommended that the Umm Al Quwain Police Department invests in specialized AI systems for crisis response and provides comprehensive training for personnel to leverage these technologies effectively. Future research should replicate this study in other public institutions to validate and generalize the findings.

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Keywords: Organizational Performance, Crisis Response, Artificial Intelligence, Public Crisis Management

ABSTRAK

Kajian ini bertujuan untuk mengkaji kesan strategi tindak balas krisis terhadap prestasi organisasi dan untuk menilai peranan penyederhanaan Kecerdasan Buatan (AI) dalam hubungan tersebut, khususnya dalam konteks keselamatan awam. Objektif khusus termasuk menganalisis bagaimana tindak balas krisis mempengaruhi dimensi keberkesanan, kecekapan dan daya tindak balas, dan menilai bagaimana AI meningkatkan kesan ini. Reka bentuk penyelidikan kuantitatif telah digunakan. Data dikumpulkan menggunakan soal selidik berstruktur yang diedarkan kepada kakitangan Jabatan Polis Umm Al Quwain melalui teknik persampelan kuota bukan kebarangkalian. Daripada 708 soal selidik yang diedarkan, 369 soal selidik yang boleh digunakan telah dikembalikan, yang merupakan sampel akhir untuk dianalisis. Data dianalisis menggunakan perisian SPSS melalui analisis korelasi dan regresi untuk menguji hipotesis kajian. Penemuan mendedahkan bahawa tindak balas krisis mempunyai kesan positif yang signifikan secara statistik terhadap ketiga-tiga dimensi prestasi organisasi. Tambahan pula, AI didapati sebagai penyederhana positif yang signifikan, mengukuhkan hubungan antara tindak balas krisis dan prestasi dengan membolehkan pembuatan keputusan yang lebih pantas, meningkatkan komunikasi dan memudahkan tindakan yang lebih terselaras semasa krisis. Penyelidikan ini menyumbang kepada khazanah ilmu teori dengan memperluas aplikasi Teori Komunikasi Krisis Situasional (SCCT) kepada domain pengurusan krisis yang dipertingkatkan AI. Ia memberikan bukti empirikal untuk peranan transformatif teknologi pintar dalam rangka kerja tindak balas krisis sektor awam. Secara praktikalnya, kajian ini menggariskan kepentingan kritikal dalam mengintegrasikan alat berasaskan AI ke dalam strategi pengurusan krisis organisasi. Adalah disyorkan agar Jabatan Polis Umm Al Quwain melabur dalam sistem AI khusus untuk tindak balas krisis dan menyediakan latihan komprehensif untuk kakitangan bagi memanfaatkan teknologi ini dengan berkesan. Penyelidikan masa depan harus meniru kajian ini di institusi awam lain untuk mengesahkan dan menggeneralisasikan dapatan.

Kata Kunci: Prestasi Organisasi, Tindak Balas Krisis, Kecerdasan Buatan, Pengurusan Krisis Awam

ACKNOWLEDGEMENT

The praises and glory be to Allah (SWT) for helping me and keeping me alive till the end of this program. May His peace and blessing be upon the Prophet MUHAMMAD (SAW). I would like to thank you and place on record my profound gratitude to my honorable supervisor, for reading this work, his support, and continuous guidance throughout this study. It was a great pleasure working under his supervision because his constructive criticisms have served as a source of inspiration. Especially, thanks to external and internal examiners for their valuable suggestions and support throughout my work.

I am also indebted to my parents, may Allah (SWT) give them long and healthy life. My appreciation goes to my siblings for their love, this journey would have been a lonely one without you, thank you. I would like to express my gratitude to my siblings for supporting me. Special regards to friends and colleagues in the program who have screamed, cried, and laughed with me, thank you for your motivation and support.

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LIST OF ABBREVIATIONS

SCCT	Situational Crisis Communication Theory
AI	Artificial Intelligence
ICTs	Information and Communication Technologies
PLS	Partial Least Squares
SEM	Structural Equation Modeling
CR	Crisis Response
Et	Effectiveness
Rs	Responsiveness
UAE	United Arab Emirates

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the context of public sector organizations, particularly safety and security institutions such as police departments, organizational performance assumes critical importance as it reflects the ultimate ability of an organization to achieve its strategic objectives and deliver effective services during both normal and crises (Sahibzada et al., 2022). This importance is magnified in complex and crisis-prone operational environments, where the close linkage between crisis response readiness and levels of organizational performance becomes a decisive factor in institutional continuity and success (Al-Qudah et al., 2020).

This study focuses on examining the effect of crisis response strategies on organizational performance, while assessing the moderating role of artificial intelligence (AI) in strengthening this relationship, within the specific context of public crisis management at the Umm Al Quwain Police Department in the United Arab Emirates. The theoretical foundation of the research is anchored in Situational Crisis Communication Theory (SCCT), which provides a framework for understanding how organizations manage communication and operational challenges during crises, and how intelligent technologies such as AI can enhance the effectiveness of such responses (Coombs, 2007).

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In security and police institutions, organizational performance faces increasing pressures due to the proliferation of threat sources and the diversity of crises whether security-related, technological, health-based, or environmental (Mutahi et al., 2023). The ability to respond rapidly and in a coordinated manner has become a key determinant in maintaining institutional effectiveness, efficiency, and responsiveness to societal needs (Andrews & Van de Walle, 2013). Hence, the need to adopt advanced tools and technologies, such as AI systems, to enhance crisis response capabilities and elevate organizational performance across its three dimensions effectiveness, efficiency, and responsiveness has become evident (Khalifa et al., 2022).

The adoption of effective crisis response strategies is not limited to the private sector; it extends to public institutions, where it can contribute to improved community trust, optimized resource use, and ensured continuity of essential services during emergencies (Wang & Kuo, 2017). Nevertheless, applied studies investigating the role of AI as an enhancing factor in the relationship between crisis response and performance in the public sector, especially within police environments, remain limited and insufficient (Chatterjee et al., 2021).

Therefore, this study seeks to address this gap by analyzing the impact of crisis response on the dimensions of organizational performance (effectiveness, efficiency, responsiveness) within the Umm Al Quwain Police, and exploring how AI can moderate this relationship. It also aims to provide practical recommendations that can assist security institutions in improving their crisis preparedness and ensuring sustainable organizational performance even under emergency conditions.

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1.2 Problem Statement

The central problem investigated in this study is the persistent vulnerability of organizational performance within the Umm Al Quwain Police Department during crises, specifically evidenced by reported declines in its core dimensions: effectiveness, efficiency, and responsiveness. Despite institutional directives to modernize and integrate advanced technologies such as Artificial Intelligence (AI) into operations (Umm Al Quwain Police General Command, 2022), internal performance assessments and leadership acknowledgments indicate that operational planning becomes disjointed, coordination with partner agencies falters, and crisis response mechanisms prove inadequate. This results in suboptimal service delivery, diminished public trust, and ultimately, a failure to achieve strategic organizational objectives during critical periods (Brigadier General Sheikh Rashid bin Ahmed Al Mualla, as cited in Umm Al Quwain Police official website, 2023).

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This operational deficit highlights a critical disconnect: while the imperative for robust crisis response is universally acknowledged, there is an insufficient empirical understanding of exactly how formal crisis response strategies quantitatively impact the distinct facets of police organizational performance, and more importantly, under what technological conditions this impact is amplified or diminished. The existing literature reveals several interconnected gaps that this study aims to bridge:

A Theoretical-Conceptual Gap: Although Situational Crisis Communication Theory (SCCT) provides a robust framework for understanding reputation-focused crisis response (Coombs, 2007), its application and extension to explain comprehensive organizational performance outcomes particularly the tripartite dimensions of

effectiveness, efficiency, and responsiveness in a public safety context, remain underexplored. The theory's focus has largely been on communication and image restoration, not on operational performance metrics central to police work.

An Empirical-Moderation Gap: A growing body of research advocates for AI's transformative potential in organizational settings (Mikalef et al., 2023; Chatterjee et al., 2021). However, empirical studies examining AI not merely as a tool but as a significant moderating variable in the relationship between crisis response and organizational performance are scarce. This is especially true for governmental and law enforcement institutions, where the sociotechnical integration of AI presents unique challenges and opportunities (Khalifa et al., 2022). The nature and strength of this moderating effect lack concrete validation.

A Contextual-Knowledge Gap: Within the UAE and broader Gulf region, studies on police organizational performance often focus on general leadership or strategic planning (Alosani et al., 2020). There is a distinct lack of context-specific research that zeroes in on the crisis response-performance dynamic within a specific Emirati police command, such as Umm Al Quwain. This gap limits the availability of localized, actionable insights for commanders seeking to translate technological investments into measurable performance improvements during crises (Olan et al., 2022; Lin et al., 2022; Panichayakorn & Jermsittiparsert, 2019).

Consequently, the problem is not merely one of observed performance lapses but a compounded issue of inadequate scholarly frameworks and evidence to diagnose and address the precise linkages between crisis response, enabling technology, and multi-

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dimensional performance in public sector crisis management. This study, therefore, is designed to directly confront this problem by rigorously analyzing the effect of SCCT-grounded crisis response on the effectiveness, efficiency, and responsiveness of the Umm Al Quwain Police, while explicitly testing the contingent role of AI (Prentice, 2023). The findings intend to move beyond generic prescriptions and provide a contextualized, evidence-based model for enhancing organizational resilience and performance in the face of crises.

1.3 Research Questions

i. What is the effect of crisis response strategies on the effectiveness of organizational performance in the Umm Al Quwain Police?

ii. What is the effect of crisis response strategies on the efficiency of organizational performance in the Umm Al Quwain Police?

iii. What is the effect of crisis response strategies on the responsiveness of organizational performance in the Umm Al Quwain Police?

iv. How does Artificial Intelligence (AI) moderate the relationship between crisis response strategies and each dimension (effectiveness, efficiency, and responsiveness) of organizational performance in the Umm Al Quwain Police?

1.4 Research Objectives

The primary goal of this research is to evaluate how crisis response affects the efficiency of the organizational performance (effectiveness, efficiency, and responsiveness) of the Umm Al Quwain Police Department. The study also examines the following secondary objectives:

i. To examine the influence of crisis response on the effectiveness of organizational performance.

ii. To examine the influence of crisis response on the efficiency of organizational performance.

iii. To examine the influence of crisis response on the responsiveness of organizational performance.

iv. To examine the moderating influence of AI on the relation between crisis response strategy and each dimension of organizational performance (effectiveness, efficiency, and responsiveness).

1.5 Significance of the Study

The present study aims to examine the moderating influence of artificial intelligence on the association between the crisis response strategy and the organizational performance (namely, effectiveness, efficiency, and response) of Umm Al Quwain Police. This research holds significance for both theoretical insight and practical application.

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Theoretical Significance

This research will add to the literature in a meaningful and appropriate way. As for the literary contribution, it is filling the research gaps of the study represented in the impact of crisis response on organizational performance dimensions (effectiveness, efficiency - response) in Umm Al Quwain Police. The study concentrates at the core of the efforts of the activities related to the effectiveness of the response to the employees working in the Umm Al Quwain Police. It is essential for organizations and working professionals as well as managers to engage knowledge scientists along with the social researcher to think about the benefits and processes that can increase the

level of their staff's ability to respond to crises and improve the efficiency, effectiveness and responsiveness of their organizational performance. This study provides a framework that will help organizations understand the importance of focusing on crisis response in improving the effectiveness, efficiency, and response of organizational performance in the Umm Al Quwain Police.

This research study contains contributions to expanding the theoretical case for crisis response and organizational performance by including new indicators in measurement such as AI, as well as studying the relationship of organizational performance dimensions as one of the few studies that consider the impact of crisis response on those dimensions directly, and the influence of AI Indirectly on the relationship between crisis response and organizational performance in Umm Al Quwain Police in the UAE.

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Practical Significance

The practical significance lies in demonstrating the effects of using AI as a driving force in the correlation between Umm Al-Quwain police's organizational performance and their crisis response approach. As a result of the study's experimental evidence on the impact of the crisis response on the organizational performance in the police apparatus of the Emirate of Umm Al-Quwain, police personnel in Al-Quwain police will be better able to take a stance on the extent to which the response to a crisis affects the organization's effectiveness, efficiency, and responsiveness. When this research is completed.

In the UAE, it contributes to understanding the impact of the response strategy on organizational performance in improving organizational performance in Umm Al Quwain Police. This study assumes that despite the Umm Al Quwain Police adopting a clear methodology and within prior plans for the aspects of response to expected crises to achieve effective preparedness, the behavioral conditions and attitudes may affect the development of the organizational performance of the Umm Al Quwain Police and the improvement of the behavior of the Umm Al Quwain Police personnel based on the desire to develop Their performance is under crisis.

1.6 Overview of Umm Al Quwain Police

His Highness, Sheikh / Ahmed bin Rashid Al Mualla, ruler of Umm Al Quwain at the time, may God have compassion on him, issued a proclamation establishing the Umm Al Quwain Police on 10/18/1967, almost four years before the Union State was created. His Excellency Major General Mr. (Ubaid bin Youssef) and Mr. (Hamid bin Khatim), where His Highness Sheikh / Ahmed bin Rashid Al-Mualla, may God have mercy on him, issued a decree on 1/4/1972 appointing Major General Sheikh / Hamid bin Ahmed Al-Mualla, Chief of Police and Public Security, and the number of salaries at that time was twenty police personnel. Hamed Al-Rawas and Ali Al-Awlaki of the Dubai Police and Muhammad Juma and Khaled Al-Mataref of the Abu Dhabi Police were responsible for the training of the force (Umm Al Quwain Police General Command, 2023).

Police duties were reorganized and more officers were added after its headquarters moved from the government-prepared building in the old Umm Al Quwain area to a new building constructed on the same site as the current prison (Punitive and

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Correctional Institution Administration). Following the Union's formation, the Umm Al Quwain Police began operating under the direction of the Federal Ministry of Interior; on May 15, 2011 AD, the Umm Al Quwain Police was reorganized from a General Administration to a General Command. Currently, the Umm Al Quwain Police General Command is housed at a building on Umm Al Quwain Creek, next to the Amiri Diwan and the Umm Al Quwain Municipality (2023).

At the Umm Al Quwain Police General Headquarters, both the work environment and the internal relations are characterized by familiarity, flexibility, and easy communication between superiors and subordinates. Working with partners like the Court House, in compliance with the prosecution and court of all kinds, the Civil Defence Department, and the General Administration of Residency and Foreigners Affairs, as well as local departments and bodies like the Umm Al Quwain Municipality and the Economic Department that contribute to the local economy, makes the external work environment unique (Umm Al Quwain Police General Command, 2023).

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1.7 Research Scope

This study is deliberately scoped to develop and empirically test a conceptual framework that explains the impact of crisis response on organizational performance within the specific context of the Umm Al Quwain Police Department, UAE.

Crisis Response: This study conceptualizes crisis response operationally through the lens of Coombs' (2007) Situational Crisis Communication Theory (SCCT). The scope is bounded by the post-crisis communication and management strategies (denial,

diminishment, rebuilding) that the organization employs, excluding long-term pre-crisis preparedness phases.

Organizational Performance: Performance is scoped to three non-financial dimensions critical to public sector efficacy: effectiveness (goal achievement), efficiency (resource optimization), and responsiveness (adaptation to public needs). Artificial Intelligence (AI): Within this study, AI is scoped as AI-enabled decision-support and analytical tools used by the police department. It refers specifically to technologies that process information, generate insights, and aid coordination during crisis management, moderating the link between response actions and performance outcomes.

The research model (to be presented in Chapter 2) is an adapted conceptual framework. It adopts the core logic of SCCT for crisis response and integrates it with established organizational performance dimensions. The key adaptation is the introduction of AI as a hypothesized moderating variable, a synthesis justified by contemporary literature on technology-enhanced public management (Khalifa et al., 2022; Wang et al., 2023). This model has been tailored to fit the public safety context of the UAE.

Methodological and Population Scope: The study employs a quantitative, survey-based research design. Data will be collected via a structured questionnaire distributed to a sample of employees from various departments within the Umm Al Quwain Police. The analysis will utilize statistical techniques, including correlation and regression analysis via SPSS and PLS-SEM, to test the hypothesized relationships.

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Contextual and Temporal Scope: The research is confined to the Umm Al Quwain Police Department in the UAE. The data collection and analysis are scheduled between 2023 and 2024. Findings are intended to contribute knowledge to this specific context while offering insights potentially relevant to similar public safety institutions.

1.8 Research Structure

This scholarly work is divided into five chapters, with the following serving as the unit for each:

During the first chapter, it is clear how the Umm Al Quwain police in the United Arab Emirates have been using AI to improve their response strategy and overall organizational effectiveness. The study's introduction details the subject at hand, the research's goals and methods, the study's scope and terminology, and its organizational framework.

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The second chapter of this academic paper is a survey of the relevant literature, which provides context for the first chapter's introduction to AI, response strategy, and organizational performance in the United Arab Emirates. Furthermore, academic ideas associated with conceptual design are elucidated via a discussion of their applicability to the present investigation.

The third chapter lays out the design that will guide all of the stages, methodologies, design tools, population, sampling strategies, data collection, and analysis discussed in the first two chapters. The title describes the substance, which includes the creation of the suggested model and proof for the hypothesis. Problem identification and resolution are connected in this section.

Chapter Four: Since this is a quantitative study, the findings of statistical data analysis are included, starting with the results of cleaning the raw data and ending with the results of the model's relationships. Among the results are an evaluation of the data set's validity and reliability, a breakdown of the model's associations, and a description of the frequency of demographic information and respondents' opinions. There are also group discussions on the theories put out in this chapter.

The last chapter provides a synopsis of the whole study together with its findings, suggestions for practitioners, knowledge contributions, and other calls to action.

1.9 Operational Definitions

Many scholars and experts in the past have given their own unique definitions to the terms used in this investigation. The following are some of the most important and often used keywords in this study:

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1.9.1 Organizational Performance

Conceptual Definition: Organizational performance is a multidimensional construct that represents the extent to which an organization achieves its strategic goals and fulfills the expectations of its key stakeholders through the effective and efficient utilization of its resources (Venkatraman & Ramanujam, 1986; Kaplan & Norton, 1996). It encompasses both financial and non-financial outcomes that indicate the overall health and success of an organization.

Operational Definition: In this study, organizational performance is operationalized through three distinct but interrelated dimensions, consistent with public sector performance frameworks (Andrews & Van de Walle, 2013):

- Effectiveness: The degree to which the Umm Al Quwain Police Department achieves its predefined objectives and desired outcomes.
- Efficiency: The optimal ratio between the outputs (services delivered) and the inputs (resources such as time, budget, and personnel) used by the department.
- Responsiveness: The department's capacity to sense, adapt to, and address the needs and concerns of the public and other stakeholders in a timely and appropriate manner (Pandey & Dutta, 2013).

These dimensions are measured using validated scales adapted from Kaplan and Norton (2015) for effectiveness, the World Business Council for Sustainable Development - WBCSD (2005) for efficiency, and Tiedemann et al. (2009) for responsiveness.

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1.9.2 Effectiveness

- Conceptual Definition: Effectiveness refers to the accomplishment of stated organizational goals and the production of intended results (Daft, 2015). It answers the question of "what" is being achieved.

- Operational Definition: For this research, effectiveness is defined as the perceived extent to which the Umm Al Quwain Police Department attains its mission-related goals, maintains service quality, and utilizes technology to enhance outcomes. It is measured using an 8-item scale adapted from Kaplan

and Norton's (2015) Balanced Scorecard perspective on internal process and learning/growth objectives.

1.9.3 Efficiency

- Conceptual Definition: Efficiency denotes the relationship between organizational inputs and outputs, focusing on minimizing resource waste and maximizing productivity (Robbins & Coulter, 2021). It answers the question of "how" resources are used.
- Operational Definition: In the context of this study, efficiency is defined as the perceived competency of the Umm Al Quwain Police Department in setting performance targets, improving resource utilization, training staff, and managing environmental impacts related to its operations. It is measured using an 8-item scale based on the eco-efficiency indicators framework by the World Business Council for Sustainable Development (WBCSD, 2005), adapted for a public safety context.

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1.9.4 Responsiveness

- Conceptual Definition: Responsiveness is an organization's ability to promptly recognize and adapt to changes in its external environment and stakeholder expectations (Zeithaml et al., 2000).
- Operational Definition: Operationally, responsiveness refers to the perceived speed, timeliness, and proactive engagement of the Umm Al Quwain Police Department in service delivery, public feedback integration, and corrective action. It is measured using an 8-item scale adapted from the work of Tiedemann et al. (2009) on customer responsiveness in service settings.

1.9.5 Crisis Response

- Conceptual Definition: Grounded in Coombs' (2007) Situational Crisis Communication Theory (SCCT), crisis response encompasses the set of strategic communication and actions an organization undertakes after a crisis hits to protect its reputation and manage stakeholder perceptions. SCCT emphasizes that the level of organizational responsibility attributed by stakeholders influences the appropriate response strategy.
- Operational Definition: This study focuses specifically on Crisis Response Awareness as the independent variable. It is defined as the organization's (Umm Al Quwain Police) conscious application of SCCT-based strategies to address a crisis. This includes strategies such as denial, diminishing, and rebuilding, which are aimed at shaping stakeholder attributions. The construct is measured using an 8-item scale directly derived from Coombs' (2007) typology of crisis response strategies, assessing the extent to which respondents perceive these strategies are employed by their department.

1.9.6 Artificial Intelligence (AI)

- Conceptual Definition: Artificial Intelligence refers to systems or machines that mimic human cognitive functions such as learning, problem-solving, and pattern recognition to perform tasks and can iteratively improve based on the information they collect (Norvig & Russell, 1995).
- Operational Definition: For the purpose of this study, AI is conceptualized as AI-Enabled Analytical and Decision-Support Systems. It refers to the suite of intelligent technologies (data analytics platforms, predictive modeling tools, automated communication systems) adopted by the Umm Al Quwain Police to

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enhance situational awareness, decision-making speed, and operational coordination during crisis management. Its moderating role is measured using an 8-item scale adapted from Wang et al. (2023), focusing on employees' knowledge, use, and perception of AI tools within the organizational context.

1.10 Limitation of the Study

Umm Al Quwain Police in the United Arab Emirates was used as a case study, and its scope was limited by the objective limitation of the influence of similar AI on the link between crisis response strategy and organizational performance. The scope of this research will be confined to the United Arab Emirates' Umm Al Quwain Police Department. The United Arab Emirates has been chosen as the location for this research due to its geographical isolation. Due to the study's inherent limitations, only current and former members of the Umm Al Quwain Police Department in the United Arab Emirates will participate. The implementation period for this study covers 2023 to 2024.

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1.11 Summary

The chapter introduced the context of the study, the research topic, and the research questions, and then explored the impact of the link between the crisis response plan and organizational performance. In addition, he went about the goals of the research, which are firstly, analysing how the Umm Al Quwain Police Department's crisis response plan affected their efficiency and productivity. Second, looking at how a company's crisis plan affects its productivity in the workplace. The Law Enforcement Agency of Umm Al Quwain Inquiring how the crisis response approach affects the effectiveness of organizational performance, is the third objective. The Law

Enforcement Agency of Umm Al Quwain. The average impact of AI on Umm Al Quwain Police's crisis response strategy and operational effectiveness is the subject of our fourth research objective.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In order to set the course of the study, this section examines relevant scientific studies and citable online publications, including reputable government portals, fresh internet sites, books, and journals. In this section, the author theoretically investigates how Umm Al Quwain Police might use AI to enhance the connection between crisis response and organizational performance. The study also looked at the moral implications of using AI in the Umm Al-Quwain police force by defining emergency responses and analysing the different characteristics (efficiency, effectiveness, and responsiveness) of organizational performance. The short descriptions of the causes of the crises are included below. Furthermore, crisis management was a focus. As a result, the researcher settled on a set of variables that square with the issue, aims, and questions posed in the introductory chapter. This chapter concludes with an abstract and a discussion of how the study was grounded in theory.

2.2 Organizational Performance

The results achieved by a company's employees are the sum total of their efforts. Meanwhile, research conducted by Hervani et al. (2005) found that the conventional wisdom in management is that success may be achieved by focusing on and insisting upon administrative and operational methods that boost the company's overall

performance. There were various transitional periods during which the idea of organizational performance evolved. There have been many attempts to link activities and operations as well as outputs in evaluating work performance, and this is true across the board in the industrial framework, including companies, organizations, and countries (Al-Qudah et al., 2020). Initially, this development focused solely on financial indicators affected by social and humanitarian conditions.

According to Gaikar and Cherian (2020), the notion of organizational performance assessment may be seen as both traditional and innovative. While it had a limited significance in the past, it has now become a crucial aspect for any administration that is committed to achieving success and progress. Performance assessment is a qualitative management method used by human resource management. It is essential that all workers, regardless of their hierarchical position within the organizational management structure, demonstrate their consent to participate in the assessment process. The evaluation method confers advantages on the institution's leadership by furnishing a more precise and empirical appraisal of the calibre of its personnel and the outcomes that may be anticipated from their performance.

Additionally, a study conducted by Alnuaimi and Yaakub in 2020 mentioned that the assessment of organizational performance is a crucial mechanism for closely monitoring work progress and determining the extent to which goals are being achieved. It also enables comparisons with successful institutions operating within the same field of specialization, thereby facilitating a flexible, dynamic, and active work environment. This approach fosters a sense of accountability and evaluation among employees, ultimately serving as a motivating factor. In order to ensure the efficacy

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and intended outcomes of an assessment, it is imperative that it be conducted in parallel with all other administrative operations. Additionally, the involvement of all pertinent departments is crucial, since their complete collaboration, correctness, and reliability are essential. This collaborative approach should be guided by strong scientific evaluation standards.

Various researchers across various disciplines have grappled with the idea of organizational performance, and this has resulted in a wide range of definitions and descriptions. Organizational performance occurs when a worker completes all assigned tasks within the parameters established by the organization and to the satisfaction of its leaders within a certain amount of time (Baghi & Gabrielli, 2021). In the 1980s, the concept of performance was described as the ability of a social system to balance its means with its aims (Robbins, 1987). There is consistency between this definition and the one proposed by Georgopoulos and Tannenbaum (1957). However, according to Cherrington (1989), an organization's performance is an indicator of how well it is functioning as a whole and how well it is doing in terms of achieving its goals.

In the next decade, Adam (1994) argued that the quality of employee performance had a significant impact on the success of organizations. He thought that in order to keep up with the rapid changes in the market, the company's employees needed to be constantly exposed to new information and training, which would improve the quality of their work and thus the company's performance.

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Organizational performance in the first decade of the 21st century was defined as the degree to which an organization was able to effectively and efficiently use its resources to produce results that were both in line with its stated goals and of value to its customers or clients (Peterson et al., 2003). Three broad characteristics of OP—"efficiency," "effectiveness," and "relevancy"—have been accounted for in this description. On the other hand, it is generally accepted that an organization's performance may extend to cover further ground, such as the link between performance and overall organizational objectives (effectiveness); organizational resources (efficiency); and, satisfaction of the stakeholders (responsiveness).

The elements of organizational performance are defined in three basic elements, which are the employee with all his psychological and material components and his interests, skills, values, attitudes and motives. The second element is the job with all its aspects, requirements and challenges required to perform it. Function, which includes the work environment, availability of resources, administrative systems, laws and regulations, and organizational and operational structure in the enterprise (Al-dalahmeh et al., 2018).

Many factors affect organizational performance, such as the difference in the size of the organization and the work in it. An organization that deals with a large number of customers and processes a huge amount of information that needs human, material and operational resources to deal with it more than another organization that has a smaller size may need. of operational information and procedures for work (Zhang & Lim, 2022).

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Organizational and operational practices such as the appropriate organizational, operational and procedural arrangements for the volume of work, the nature of the task and its return, and its importance to the institution are considered an important factor in the nature of organizational performance, and thus shortening the time and work steps in any administrative process, reduces the resources required to complete the required and predetermined task (Hoai et al., 2022).

Concerning the technical and technological aspects, which are represented in the supply, processing and development of advanced and modern technology, which is represented in smart technological devices and modern software, as the performance of employees and organizational performance in general improves with the improvement of the level and capabilities of the technology harnessed to them in the institution and the administrative methods used in that institution (Malgwi & Dahiru, 2014).

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The concept of organizational performance appraisal is an old and modern concept at the same time, and it did not have an important role previously, but with the development of management science, this concept has become urgent and important for any administration seeking success and progress. Performance appraisal is a qualitative management process practiced by human resource management in organizations, and all workers must accept the evaluation process from all administrative levels. The leadership of any institution benefits from the evaluation process because it puts it in a real, scientific perception of the level of workers and production expectations from them (Gaikar & Cherian, 2020).

One of the methods for closely monitoring work and determining whether it is near to meeting its goals or whether the overall performance of the organization is comparable to that of successful organizations with similar specialization is through the evaluation of organizational performance. This evaluation, in turn, fosters flexibility, dynamism, and activity in the workplace, giving employees a sense of follow-up and evaluation. As a result, employees are motivated to work actively, efficiently, and with a sense of belonging in order to demonstrate their commitment and good production in front of the expected heads, who will then be able to reward them and provide the incentives, bonuses, and prizes established during the evaluation process (Cherian et al., 2020). In order for the evaluation process to be a feasible process and achieve the objectives required of it, it must proceed in parallel with all administrative processes, and all departments must participate in it in a cooperative, accurate and dependable manner on the scientific methods of evaluation (Alnuaimi & Yaakub, 2020).

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2.3 Crisis

Humans have experienced a wide variety of crises across economic, social, environmental, and security fronts throughout history, from prehistoric times to the beginning of this century. They had an impact both at home and abroad. Since man has always struggled against the elements, it's no surprise that crisis management has emerged as a practical expression of humanity in the face of adversity (Yarkoni, 2022). Good management, inventive leadership, and swift decision-making were some of the other labels for it. It was portrayed in more than one experience, including the Greek experience, which acknowledged the need for direct contact and interaction with public opinion following the Peloponnesian War that occurred between Athens and Sparta (Bookchin, 2022).

The frequency, severity, and complexity of catastrophic events, including natural disasters, terrorist acts, and cyber strikes, are all on the rise. It is crucial to share real-time location-based data on the breadth, size, and complexity of a crisis to prioritize incident response. When information about the current situation is shared between the operations center and the field, as well as between government, business, and community organizations, more efficiency and effectiveness may be achieved (Bethune et al., 2022). According to historical records, the term "crisis" was first used in the field of ancient Greek medicine to describe a critical juncture in the course of a disease, after which the patient would either make a speedy recovery or perish (Koselleck & Richter, 2006).

The English word “crisis” originates from the Greek “krisis”, meaning a decisive time or turning point. Additionally, it might signify a rapid and generally negative shift in circumstances (Milstein, 2015). According to an intermediate Arabic lexicon, the crisis is described as "distress, so it is said that the year or eternity has come upon them, i.e., its drought has intensified, and its goodness is less." In English, the term "crisis" refers to a perilous and deciding circumstance, a turning point, or an unstable position in political, economic, or world affairs, as defined by the American Heritage Dictionary - The American Heritage Dictionary. Which is poised to take place, either in a definitive shift or a rapid change in a chronic condition, for better or for worse (Millar & Beck, 2003).

Coombs (2015) provides an analysis of the SCCT in his scholarly discourse. The use of the apology technique by critics has been employed as a means to get a deeper comprehension of the approach undertaken by the business in safeguarding its

reputation in times of crisis. Nevertheless, because of the inherent limitations of the apology in terms of reaction techniques, there has been a need to broaden its scope by including other approaches. Subsequently, through acquiring knowledge about the concept of accountability.

A critical and unstable period or dysfunction is what could find in Webster's. Terminologically speaking, the crisis was defined differently depending on the viewpoint or academic tradition being used. According to mainstream economics, a crisis is a transitory economic condition that hinders a country's ability to fulfil its objectives, and that may be traced back to either external or internal economic factors. However, the sociological definition of crisis is "an abrupt cessation of regular activities and a disruption of established patterns of behavior and norms" (Ramalho, 2021). This calls for immediate action to restore equilibrium and establish new routines that are better suited to the altered circumstances.

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Psychiatrists have also used the term "crisis" to describe the profound emotional and mental effects on an individual's or a group's behavior and identity (Koselleck & Richter, 2006). Even though numerous administrative perspectives have been used to define the crisis's significance. A situation faced by the management of the organization, in which events accelerate, and causes are intertwined with results, during which the decision-maker loses the ability to control the events that take place inside and outside the organization, which affects the way significant impact on the performance and future of the organization.

2.4 Crisis Response

The world of major entities, major conflicts, and conflicting interests, a world in which there is no place for a dwarf or stunted state, and there is no respect for any division or fragmentation. It expands and develops, its foundations become entrenched, and its interests and conflicts increase, so its crises are of increasing diversity and intensification (Janssen & Van der Voort, 2020). Garcia-Perez et al. (2021) focused on the connections between the present-day dynamic organizational climate of cyber risks requiring crisis response, the performance of cybersecurity within organizations, and shifts in cyber security investments to combat the unfriendly cognitive climate for the management of intellectual capital posed by the phenomenon's dynamics. Thus, there is a correlation between how the Board of Directors views the current state of cybersecurity concerns and how they decide to allocate resources toward crisis preparedness and management. In addition, the authors discovered that the level of investment in cybersecurity was positively correlated with the amount of effort critical infrastructure businesses put into cybersecurity training, especially with regard to the development of intellectual capital.

There are many crises facing society, either periodically or randomly. These crises have caused numerous past losses and damages to individuals and society, affecting social, political, economic, and administrative aspects. It is not hidden from one of the exposure of the community to be threatened with a random and continuous manner at the same time, whether in its material or human side, as the crises are caused by the costs of their types of losses in the facilities, public attachments, property, and the nature of this, and the nature of this is the form of development, and the formation of this is the form of development, and the nature of this is the form of development, and

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the nature of this (Sechser et al., 2019).

Using the image recovery theory and the situational theory of crisis communication, raise awareness of the gap between theory and practice in public relations by analysing the quantitative content of 51 articles from 11 journals based on the works of Benoit and Coombs. Over the course of 18 years of study, published in Crisis Communication in Public Relations. The denial tactic is the most common method of communication. Denial was the second most common tactic when used in conjunction with another approach, behind only reinforcement. Crisis research focuses primarily on two sorts of crises: those that may be avoided, and those that involve specific incidences or groups of people. Most the crisis situation that may have been avoided were handled by blaming the victim. As the study showed, practitioners do not always follow the recommendations of a large body of crisis research, so maybe this review can convince crisis communicators to change their ways.

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Whether through words (the verbal side) or actions (the non-verbal side), an organization's directions to address a crisis are reflected in its communications during a time of crisis (Kyhn, 2008; Coombs, 2015). The key areas of inquiry for Garcia-Perez et al. (2021) were organizational performance in the field of cybersecurity, shifts in investments related to cybersecurity, and the prevailing landscape of cyber risks necessitating crisis response. The findings suggest a correlation between the evaluation of cybersecurity concerns by the Board of Directors and their allocation of resources towards the planning and management of crises. The researchers also discovered a significant correlation between the cybersecurity training initiatives undertaken by critical infrastructure organizations and the level of investment in cybersecurity,

notably in the development of intellectual assets.

Comfort et al. (2004) show that gauging a community's resilience to disasters entails looking at how its capacity to cope with risk compares to the demands placed on it by its cumulative exposure to hazards. In order to determine system vulnerability, or the point at which a system collapses, the authors provide a first effort at simulating the dynamic between rising demands and falling capacity in a real-world disaster response system. Having quick access to vital data has been shown to enhance response operations and increase network-wide coordination among reacting organizations.

The SCCT theory recognized that the safety of individuals is the top priority in crises, as the focus on the reputation of the organization appears superficial in light of threats to life and property during a crisis. The apology or the use of communication as a means of defending the reputation against public attack constituted the first response strategy, so several critics applied the apology strategy to understand the mechanism adopted by the organization in defending its reputation during crises, but since the apology provides a limited number of response strategies, it has been expanded. Then, by studying the concept of assuming responsibilities (Coombs, 2015).

The capacity to effectively address this issue is contingent upon one's comprehension of the problem's essence and the appropriate course of action, as argued by Kähkönen and Patrucco (2022). The area of crisis management has been driven by many crises; yet, the categorization of these crises seems to be subjective, influenced by individual perspectives. The phase in which the government takes action and communicates its reaction to a crisis, as described by Aziz et al. (2022), is often known as the crisis

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response phase. The importance of public relations becomes evident in times of crisis as it enables the customization of communications to suit the needs and preferences of certain target audiences. The response phase encompasses three sub-phases, including crisis reaction, image restoration, and future behavior planning.

Man-made and natural catastrophes, as well as a lack of resources to cope with them, were highlighted as problems by Wang & Kuo (2017). One way to look at the strategy-based approach is to investigate the impact that various strategies have on the crisis-response capabilities of various organizations. The ties between crisis response readiness and strategic ways to improving an organization's performance. With these results in hand, public managers have a clearer picture of the strategic patterns they should implement to strengthen their agencies' ability to handle crises.

Knowing the sort and nature of this crisis, and how to react to it and deal with it, will determine how to understand the answer to it and the method to deal with it. Despite the wide variety of crises that have inspired the work of crisis management experts, it turns out that how we label them fundamentally relies on our perspective (Kähkönen & Patrucco, 2022). What the government does and says in reaction to a crisis is known as the crisis response phase. When dealing with a crisis, public relations is essential since it helps craft messaging for various target groups. Crisis reaction, image restoration, and future behavior planning are the three sub-phases that make up the response phase (Aziz et al., 2022).

According to the research conducted by Kune et al. (2016), the first phase of crisis response is considered the primary step in the crisis response process. This phase

encompasses the implementation of recommended strategies for effectively addressing a crisis during its early stages. These strategies include prompt action and the pursuit of an initial reaction within the first hour. It is important to ensure the accuracy of the information presented. It is essential to keep designated representatives well-informed on the latest developments and key messages about crises. According to Imran et al., (2014) AI for Disaster Response (AIDR) is a platform developed to automatically classify crisis-related Twitter conversations. AIDR enables humans and computers to collaborate in order to apply human intelligence to large-scale data at fast speed in response to a crisis. AIDR's purpose is to categorize communications provided by individuals during catastrophes into a set of user-defined information categories ("needs", "damage", etc.) The system is continually absorbing data from Twitter and processing (utilizing machine learning categorization technologies) and using human input (through crowdsourcing) in real time. AIDR was successfully tested to distinguish between informative and non-informative tweets published after the 2013 Pakistan earthquake.

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The first crisis response phase is the first step in the crisis response process and represents the best practices of responding to a crisis in its early stages, such as acting swiftly and attempting to receive an initial response within the first hour. Verify everything for accuracy. Maintain cohesion by keeping spokespersons abreast of crisis developments and talking topics. The safety of the public should be the priority. Make use of the Internet and other mass media methods to spread the message. Be compassionate and sympathetic to the victims. Staff members should be part of the early reaction. Help those affected by the crisis, as well as their loved ones and personnel, via stress and trauma therapy. Restoring goodwill, good intentions, and

actions taken to rehabilitate one's reputation (Kune et al., 2016).

According to Claeys and Cauberghe (2014), case studies have been utilized extensively in the field of communication to model crisis response tactics for use by professionals in the field. And it turns out that people who are highly involved in a crisis look at the available information more carefully than those who are less involved, so their post-crisis attitudes towards the organization are better if the organization develops a crisis response strategy that matches in a rational way, rather than emotionally. They don't put in much mental effort to create their opinions (for example, in regards to crisis response tactics), therefore communications with an emotional context are more likely to sway them.

The research also found that how a business frames its messaging affects how customers perceive those messages. There is no correlation between the degree of similarity between the crisis response approach and the kind of crisis and the subsequent attitude toward the organization following the crisis. The results indicated that the emotional message framing is helpful for crisis-hit businesses in the post-crisis phase of reputation repair.

Next, the crisis management must attack the accuser, stressing to them that the company may have a problem if they continue to spread such rumours. Negation, with the crisis management claiming there is no emergency. The crisis manager assigns fault to an external party or parties. The justification is the crisis manager's denial of purpose to hurt, which reduces organizational accountability, or his claim that he was unable to prevent the crisis from occurring (Wilk-Jakubowski et al., 2022).

Claeys and Cauberghe (2014) examined the influence of crisis response tactics on post-crisis organizational reputation, and they found that the timing of crisis disclosure has a modest effect. E-mails were sent out to potential participants in the research, asking them to fill out an online questionnaire written in Dutch. The results of the research indicated that the organization's image suffers proportionally more when its leaders are directly responsible for the crisis, although this harm may be mitigated by effective public relations tactics. Where public relations professionals struggle to decide between potential responses to crises because of internal resistance to accepting blame or issuing an outright apology for fear of the legal repercussions or financial losses that would result.

The next step in crisis management is rationalization, during which the apparent damage produced by the crisis is downplayed. Helpful reminder for the crisis management to share the organization's successes in the past with interested parties. Gratitude is expressed by the crisis management to everyone involved for their efforts. The crisis manager may compensate the victims by giving them money or other goods (Bag et al., 2021). The apology is symbolized by the crisis management admitting that the company is at fault and asking for forgiveness from affected parties. After the crisis, the conclusion of the crisis does not guarantee that it will not be repeated, particularly if it does not have a global impact, companies in this period take the time to reflect on what happened and why it happened. In this last phase, after the crisis, companies (Wilk-Jakubowski et al., 2022).

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The safety of the public and concern for the victims is what constitute a priority for the company during the crisis, although the reinforcement strategy is the most used, but it must be complementary to other response strategies, as it will be realized that the company only cares about itself and not its audience if it uses promotion alone (Park, 2017). Similarly, the use of the reinforcement strategy can lead to a decrease in assigning responsibility for the crisis to the company, but the effect does not transfer to trust, attitudes, company reputation, and supportive behavioural intentions. The reminder strategy is effective in the case of minor crises, but it is not considered effective in light of an acute crisis.

The impact of a company's communication presentation on customer reception has been examined in a study conducted by Wilk et al. (2022). There is no significant correlation between the crisis response technique used by an organization and the nature of the issue, and the subsequent feeling expressed towards the organization after the crisis. The results indicate that firms that have had crises may find it advantageous to use emotional message framing during the post-crisis period as they work towards restoring their reputations. The timing of crisis disclosure has little influence on the subsequent reputation of a company in the aftermath of a disaster.

At the end of the crisis response process, the post-crisis company returns to business as usual, but the reputational repair may still be in progress, and communication with the public must be pursued. During the crisis phase, crisis managers frequently pledge to deliver more information. Company updates on the recovery process, remedial measures, and crisis investigations are necessary to maintain public trust (Alketbi et al., 2022).

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2.5 Underpinning Theory

2.5.1 Situational Crisis Communication Theory (SCCT)

Coombs and Holladay (2002) cited situational crisis communication theory SCCT as a useful resource for post-disaster rebuilding efforts. Research conducted by Coombs et al. (2016) argued that the way stakeholders see the crisis and the company depends on who they hold accountable. Companies may defend their credibility and standing in the eyes of the public by acting swiftly in a crisis and diffusing blame away from themselves in the eyes of their stakeholders (Coombs et al., 2016).

Stakeholders' perceptions of an organization's responsibility for an event are heavily influenced by the nature of the event itself (Maon et al., 2010). The Communication Theory of Emergency Situations Stakeholders will have a negative opinion of the event if it is something that the organization can manage, such as an incident generated on purpose or by human mistake (Coombs, 2007).

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Stakeholders will only assign partial blame to the organization if the incident was caused by something outside of its control, such as a technological failure or an accident (Hansson & Vikström, 2010). The Communication Theory of Emergency Situations. Stakeholders may respond with sympathy and devotion to the company if they see it as a victim of the tragedy (Coombs et al., 2016).

Stakeholders' perceptions of the organization's culpability for an incident may rise for reasons outside the event's causative nature. When a company has a history of crises, its image takes a hit because people start to see crises as a permanent fixture of the business (Kim, Y., & Park, 2017). More harm will be done to the company if the crisis

is very severe (Coombs, 2007). An indication of a lack of capability in many areas, bad stakeholder relations will also impact how people see the crisis (Hansson & Vikström, 2010).

In addition, the theory of situational crisis communication will help establish which communications methods a business should use in the event of a crisis. Kriyantono and McKenna (2019) found that the stakeholder requirements and claims increase in proportion to the severity of the harm to the organization's image. Communication Theory at a Time of Crisis: A more defensive mode of communication and a focus on self-interest are both possible if an organization is not held accountable for what happens (Hansson & Vikström, 2010).

The organization has to consider the depth of the crisis, the factors contributing to the crisis, and the organization's current credibility and image to get the most out of its mission strategies (Brown, 2014). The organization only has to utilize the most defensive sorts of reactions (such as artificial intelligence) and send instructions to stakeholders at risk if they are in the victim group (Gorman, 2015).

Organizations are more likely to employ defensive strategies such as Crisis Response, portraying the organization as a victim, and reminding stakeholders of the organization's past achievements in the absence of additional factors, according to the SCCT (Gorman, 2015). Organizations will need to own up to crises caused by deliberate acts or human mistakes, apologize to affected parties, and commit to making amends (Kriyantono & McKenna, 2019).

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The SCCT can highlight the organization`s perception of crisis, its response to the actions of crisis management, and the audience's response to the organization and its prestige during the crisis. The situational crisis communication theory SCCT provides a useful framework that makes the relationship between crisis response and organizational performance (Coombs & Holladay, 2002). The SCCT outlines essential factors that help crisis managers determine the most effective crisis responses to preserve organizational performance (Coombs, 1998; Coombs, 2007).

The applicability of SCCT for crisis communication has since been empirically supported in a variety of crisis scenarios such as product recalls, organizational misdeeds, and accidents, as well as different organizational settings, including non-profit organizations. Meanwhile, research conducted by Kriyantono and McKenna (2019) found that the stakeholders would react positively if the organization accepts responsibility for the problem and communicates about it using more suitable messaging. However, in case of communication theory situational crises, this strategy may be a safe option, acknowledging responsibility has many benefits, and it is often advised that spokespersons not take responsibility or take as little responsibility as possible for the event as possible by the legal representative of the organization (Brown, 2014).

Taking ownership of one's actions results in fewer concessions, a more positive reputation, and more support for one's company. Some organizations have historically been very hesitant to share information about the events, the stakes of the events, and the actions taken to deal with the situation out of fear that acknowledging responsibility in crisis communication may lead to negative repercussions from

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stakeholders (Kim & Park, 2017).

However, the long-term effects of a situational crisis communication paradigm that withholds information may be devastating. Spokespeople are more likely to choose and use strategic messaging techniques that are most successful while still addressing stakeholder requests, since more suitable communication needs more resources to generate, and such communication may lead to more risks for the organization (Coombs & Holladay, 2010).

Coombs (2015) provides an analysis of the SCCT in his scholarly discourse. The utilization of the apology technique by various critics has been used as a means to get a deeper comprehension of the approach undertaken by the company in safeguarding its image throughout times of crisis. Nevertheless, because of the inherent limitations of the apology in terms of reaction techniques, there has been a need to broaden its scope by including other approaches. Subsequently, through acquiring knowledge about the concept of accountability.

Research done by Müller (2020) used situational crisis communication theory in examining the impact of crisis readiness, crisis awareness, crisis control, and crisis response on effective crisis management. Besides technology usage as a moderation relationships to effective crisis management. While Guerber et al. (2019) and Hansson and Vikström (2010) used the same theory in their studies and show that clarifying crisis response and crisis in general related to the situational crisis communication theory, therefore, the researcher adopted this theory as the underpinning theory.

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2.6 Artificial Intelligence (AI)

AI is an ancient product throughout history and is modernity itself, but it is due to the theories of cognition and learning, and to the development of mathematics through the ages, which led to the existence of theories in logic, probability and computers, and the role of psychology that studied the capabilities of the human mind and the way it works, in addition to that AI is an important product For linguistics that put language structures and word meanings at the disposal of computer science and AI applications (Sechser et al., 2019).

A conference held at Dartmouth College in 1965 suggested using the term AI to describe computers with the ability to perform the functions of the human mind (Rissland, 1989). Dick (2019) believes that AI is an important step in the case of development in the field of technology and information. The technological revolution and its intensification over the last two decades have been the most significant factors in the emergence of the need to present serious and in-depth discussions of the characteristics of this tremendous technological progress and its applications that affected various fields effectively and productively. Perhaps the most important axes of those discussions was the topic of AI, which has become a preoccupation for studies and research centers in an attempt to develop a vision of the extent of benefit that can be realized through investment and development to harness this important sector for the benefit of different walks of life (Ebert & Duarte, 2018). For long periods, countries and institutions have invested effort and money in this area and have adopted the development strategy for tasks, operations, and management.

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Müller (2020) believes that the development of AI has an impact on administrative systems during the next decade, and that human decision is based on the processed and organized information from the AI system. The study of Zanetti et sl. (2020) indicates that technology has a long history of changing and growing actively and continuously, focusing on intelligent factors in devices that understand the environment and rely on taking actions to maximize the chances of success of the goal, and that software and hardware are the true owners of AI. Machines and software capable of abstract thought and original creation. Systems built on AI may acquire new skills over time to better serve their users. There are still remaining problems for AI to solve before it can match or exceed human intellect (Hamet & Tremblay, 2017).

In addition to other factors, the organization's performance in crisis management, on the speed of response through social media, where platforms are a vital tool for the organization to respond as quickly as possible and in the most direct way as well as to disseminate information to the public globally, network data represents difficulties and prospects for organizations in times of crisis (Fischer et al., 2016). Hagar (2015) describe “crisis informatics” and “disaster informatics” as a field of research that highlights the use of ICTs during emergencies. The good cooperation between human-intelligence and AI, will lead the performance of organizations to a high level of service quality, but the organizations must prepare and adapt a special training system for workers in the skills of AI.

Although the human cadre sometimes tries to resist technological interventions in the management of institutions, and this was confirmed by Chen and Lin (2020) that more than half of the employees oppose transferring their tasks or part of them to AI

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applications. AI is a developmental method for workers' capabilities and organizational knowledge of work and the organization, and it works on the development of the information system in the organization and helps it succeed in less time in its own tasks (Knox, 2020). Dejoux and Leon (2018) define AI as a machine capable of simulating human cognitive tasks and used in various fields, such as finance, healthcare, transportation, art, etc. As well as, Salem and Moselhi (2021) define it as a part of advanced computer science that aims to simulate the cognitive ability of humans to replace humans in performing some specific functions that require intelligence and with specific controls and conditions.

AI is the science concerned with making intelligent machines that behave as expected from human behavior (Bag et al., 2021). According to Dejoux and Leon (2018), AI is the intelligence that man creates in the machine or computers, that is, it is the intelligence of the man who gave it to the machine, or it is the science that aims to make machines or computers do things that need intelligence. Hamet and Tremblay (2017) defines it as one of the components of computer science that searches for advanced methods to carry out actions and conclusions that approximate, even in the narrowest limits, human intelligence.

And the difference in the definitions of AI lies in the fact that there is a difference in the definitions of human intelligence itself, and therefore, it is not surprising that there are differences over the definitions of AI (Dejoux & Leon, 2018). it can be note that some of the definitions focused on the concept of logic, some of them dealt with the concept of behavior, and some focused on performance and the other focused on rationality and related tasks to be achieved such as problem solving, classification,

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identification and learning, but the common idea is that AI is the intelligence that man makes in machines and computers.

Hudson (2019) believed that the issue of AI should include human life with all its components, and serve as the basis from which to build a promising future that contains a minimum of problems and a lot of justice, so that AI is used to formulate a comprehensive and sustainable vision for development It relies on AI systems to enhance capabilities in managing poverty, climate change, and developing healthcare systems.

2.7 Conceptual Framework and Hypotheses Development

Based on the theoretical foundation of SCCT Theory (Coombs, 2007) and the reviewed literature, this study proposes a conceptual framework to examine the relationships between crisis response, organizational performance, and artificial intelligence within the Umm Al Quwain Police Department.

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2.7.1 Framework Description

The framework posits crisis response as the independent variable, conceptualized through SCCT strategies. Organizational performance serves as the dependent variable, operationalized through three dimensions: effectiveness, efficiency, and responsiveness. Furthermore, artificial intelligence (AI) is introduced as a moderating variable, proposed to strengthen the relationship between crisis response and each dimension of organizational performance. This model suggests that effective crisis response leads to higher organizational performance, and this effect is amplified when AI tools are effectively integrated into crisis management processes.

2.7.2 Framework Origin and Adaptation

This framework is adapted from prior research on SCCT and organizational performance (e.g., Coombs, 2007; Wang & Kuo, 2017). The key adaptation is the explicit incorporation of AI as a moderator, which is justified by the emerging literature on technology-enhanced crisis management (Khalifa et al., 2022; Mikalef et al., 2023) and the identified research gap concerning AI's role in public safety contexts. This adaptation allows the study to address not only the direct effects but also the contingent conditions under which crisis response is most effective. As shown below:

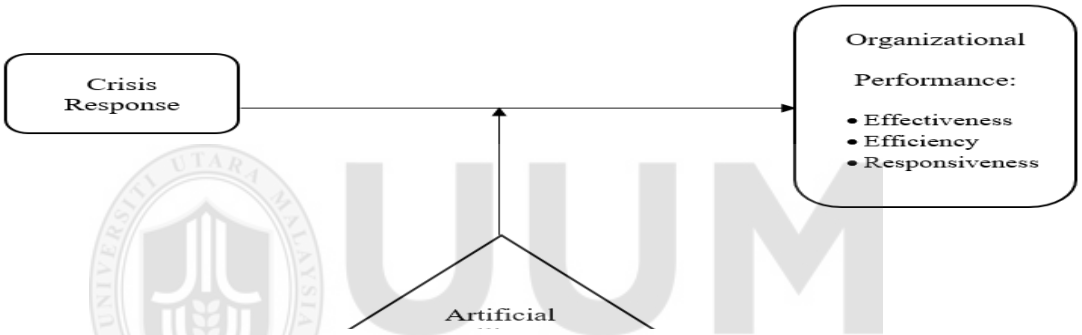

Figure 2. 1 Research Framework

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2.7.3 Derived Hypotheses

This study proposes a framework for the relationship between crisis response and organizational performance (effectiveness - efficiency - responsiveness) in the Umm Al-Quwain Police Department in the United Arab Emirates: the moderating role of Organizational Performance:

Effectiveness, Efficiency, Responsiveness, Crisis Response, Artificial Intelligence.

- H1: There is a statistically significant relationship between crisis response and effectiveness in the Umm Al-Quwain police department in the UAE.
- H2: There is a statistically significant relationship between crisis response and efficiency in the Umm Al-Quwain police department in the UAE.

- H3: There is a statistically significant relationship between crisis response and responsiveness in the Umm Al-Quwain police department in the UAE.
- H4: AI moderates the relationship between crisis response and effectiveness in the Umm Al-Quwain police department in the UAE.
- H5: AI moderates the relationship between crisis response and efficiency in the Umm Al-Quwain police department in the UAE.
- H6: AI moderates the relationship between crisis response and responsiveness in the Umm Al-Quwain police department in the UAE. See Figure 1.1 Research Framework.

2.8 Previous Studies

The efforts of an organization's workers culminate in the outcomes produced. Hervani et al., (2005) stated that the common belief among managers is that success can be attained by emphasizing and mandating administrative and operational approaches that improve the company's overall performance. The concept of organizational performance went through a number of phases of development. Al-Qudah et al. (2020) examined several initiatives in the industrial framework (businesses, organizations, and nations) to connect activities and operations in addition to outputs in measuring job performance. There was an initial emphasis on monetary measures that were influenced by social and humanitarian issues, but this has now expanded.

The concept of organizational performance has been debated extensively, as seen by the many definitions and descriptions provided by Baghi & Gabrielli (2021). When a worker does all of their responsibilities on schedule and to the satisfaction of their superiors, they have performed well for their company. However, as stated by

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Cherrington (1989), an organization's performance is a measure of its overall health and progress toward its objectives. Over the next decade, Adam (1994) contended that the quality of employee performance greatly affected the profitability of firms. His view was that the company's personnel needed to be regularly exposed to new knowledge and training in order to keep up with the fast changes in the market, which would enhance the quality of their work and the company's success.

Organizational performance in the first decade of the 21st century was defined by Peterson et al. (2003) as the extent to which an organization was able to use its resources effectively and efficiently to produce results that were consistent with its stated goals and of value to its customers or clients. OP's "efficiency," "effectiveness," and "relevancy" are accounted for here. But it's generally agreed that performance can be more broadly defined to include things like how well an organization meets its goals, how efficiently it uses its resources, and how well it responds to the needs of its various stakeholder groups.

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According to Al-dalahmeh et al. (2018), an employee's interests, talents, values, attitudes, and motivations, as well as his or her material components, determine the factors of organizational performance. The second factor is the nature of the work itself, including all of the conditions in which it must be done. The operational and organizational framework of the business, including the work environment, the availability of resources, the administrative processes, the rules and regulations, and so on. The differences in organizational size and the kind of job it does are only two examples of the numerous elements that are clarified by (Zhang & Lim, 2022). Organizations that handle a high volume of consumers and data processing have more

demands on their people, material, and operational resources than their smaller counterparts. of work-related operational data and protocols.

The resources necessary to finish the necessary and predetermined job are reduced by minimizing the time and labor steps involved in any administrative process, since organizational and operational practices consider essential elements in the nature of organizational performance, such as the appropriate organizational, operational, and procedural arrangements for the volume of work, the nature of the task and its return, and its importance to the institution. When it comes to the technical and technological aspects, which are reflected in the supply, processing, and development of cutting-edge and modern technology, which is represented by smart technological devices and modern software, as the performance of employees and organizational performance in general improves with the improvement in the level and capabilities of the technology harnessed to them in the institution and the improvement in the administration methods used by that institution.

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The concept of organizational performance appraisal is both antiquated and cutting-edge; it played a minor role in the past, but has since assumed centre stage for any administration serious about success and advancement (Gaikar & Cherian, 2020), t. Human resource management uses performance appraisal, a qualitative management process. All employees, at all levels of the organization's management, must agree to the evaluation process. The evaluation process benefits the institution's leadership by providing a more accurate, scientific assessment of the quality of its employees and the results that can be expected from them.

Meanwhile, a research conducted by (Cherian et al., 2020) found out that the valuing organizational performance is one of the tools that allows close monitoring of work and whether are close to achieving the goals, or if the institution's overall performance is similar to the performance of successful institutions of similar specialization, and this in turn helps to work with flexibility, dynamism, and activity, for the employees' feeling of follow-up and evaluation, and thus motivates employees. For an evaluation to be effective and yield the desired results, it must run concurrently with all other administrative procedures and involve the full cooperation, accuracy, and dependability of all relevant departments based on sound scientific evaluation principles (Alnuaimi & Yaakub, 2020).

Meanwhile, research by Janssen and Van der Voort (2020) pointed out that this is world of crises, where great entities, significant conflicts, and clashing interests abound; a world where no state is too small to matter, and where division and fragmentation are treated with contempt. The universe is immense, existing beyond the confines of time and strife. As it grows and changes, its foundations become more solid, and its interests and conflicts become more numerous, so too do the variety and intensity of the problems it faces to counteract the phenomenon's dynamics, which create a hostile mental environment for the administration of intellectual property.

Organizational performance in cybersecurity, changes in cybersecurity investments, and the current atmosphere of cyber threats needing crisis response were the primary topics of investigation for Garcia-Perez et al. (2021). The results indicate a link between the Board of Directors' assessment of the condition of cybersecurity issues and their allocation of resources for crisis preparation and management. The authors

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also found that the cybersecurity training efforts of critical infrastructure enterprises were strongly connected with the degree of investment in cybersecurity, particularly in the creation of intellectual capital.

Likewise, a study performed by Sechser et al. (2019) found that society faces a variety of crises regularly or at random. These crises have resulted in significant societal, political, economic, and administrative losses and damages. As the crises are caused by the costs of their types of losses in the facilities, public attachments, property, and the nature of this, and the nature of this is the form of development, and the formation of this is the form of development, it is not hidden from anyone that the community is exposed to be threatened with a random and continuous manner at the same time, whether on its material or human side.

As shown by Comfort et al. (2004), a community's resilience to catastrophes may be measured by comparing its risk-handling capabilities to the demands posed by its total exposure to risks. The authors make a first attempt at recreating the dynamic between increasing demand and decreasing capacity in a real-world disaster response system in order to establish system vulnerability, or the point at which a system fails. Improving response operations and increasing network-wide coordination among responding entities have both been linked to improved access to timely, crucial data.

The emphasis on the organization's reputation seems trivial in view of the risks to life and property during a crisis, as addressed by Coombs (2015) in his discussion of SCCT theory. A number of critics have used the apology strategy to better understand the mechanism adopted by the organization in defending its reputation during crises.

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However, since the apology only provides a limited number of response strategies, it has been expanded to include other tactics. Then, through learning about the idea of being accountable.

Both natural and man-made disasters, as well as a lack of preparedness, were cited as issues by Wang & Kuo (2017). One technique to examine the strategy-based approach is to look at how different strategies affect the crisis-response capacities of different organizations. Strategic approaches to enhancing an organization's performance and their relation to crisis response preparedness. The findings provide light on the strategic patterns that public managers could apply to improve their agency's crisis response capacities.

Meanwhile, research conducted by Kähkönen and Patrucco (2022) found that the ability to find a solution to this issue depends on how to comprehend the nature of the problem and how to respond to it. Despite the many different crises that have motivated the field of crisis management, it seems that the labels depend heavily on our point of view. What the government does and says in response to a crisis, is referred to as the crisis response phase (Aziz et al., 2022). Public relations is crucial during times of crisis because it is used to tailor messages to specific audiences. The response phase consists of the three sub-phases of crisis reaction, image restoration, and future behavior planning.

Meanwhile, research conducted by Kune et al. (2016) stated that the first phase of a crisis response is the first step in the crisis response process and reflects the best practices of reacting to a crisis in its early phases, such as acting fast and striving to

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obtain an initial response within the first hour. Make sure the facts are correct. Ensure consistency by keeping spokespersons informed of crisis updates and talking points. The public's safety must always come first. Use the web and other forms of mass communication to get the word out. Members of staff need to be involved in the first response. Stress and trauma counseling should be made available to people directly impacted by the crisis, as well as their loved ones and support staff. Rehabilitating one's reputation entails both positive intentions and activities aimed at restoring goodwill.

Case studies have been widely used in the area of communication to model crisis response strategies for usage by professionals, as stated by Claeys and Cauberghe (2014). And it turns out that people who are highly involved in a crisis look at the available information more carefully than those who are not, so their post-crisis attitudes towards the organization are better if the organization develops a crisis response strategy that matches rationally rather than emotionally. Their views aren't the result of much thought on their part.

Wilk-Jakubowski et al. (2022) said that the way a company presents its communications to consumers affects how those messages are received. Similarity between crisis response strategy and the nature of the problem does not predict post-crisis sentiment toward the organization. The findings suggest that in the post-crisis phase of repairing their reputations, companies that have been affected by crises may benefit from emotional message framing. Crisis disclosure timing has a little impact on post-crisis organizational reputation (Claeys & Cauberghe, 2014). Researchers reached out to prospective participants through email, encouraging them to complete

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a Dutch-language online survey. The study found that when top executives are to blame for a crisis, the organization's reputation takes a bigger hit than usual, while public relations efforts may help. There is an internal aversion to taking guilt or delivering an unambiguous apology, which makes it difficult for public relations experts to choose between alternative solutions to crises for fear of legal ramifications or financial losses.

Although the reinforcement strategy is the most used, it needs to be complementary to other response strategies, as it will be realized that the company only cares about itself and not its audience if it uses promotion alone (Park, 2017). The reinforcement technique may reduce the number of people who blame the firm for the problem, but it has no impact on people's faith in the company, their positive opinions of it, or their plans to take positive action in response to the issue. Especially in severe crises that may be avoided and in which blame rates are high, he recommends that corporations prioritize how they react to the crisis above how it pertains to corporate social responsibility. Even while the reminder technique works well in the face of moderate crises, it is not recommended in the face of a major emergency.

Meanwhile, a research conducted by Alketbi et al. (2022) clarified that, after a crisis has been resolved, a firm will return to business as normal. However, the company's image may still need to be repaired, therefore efforts to communicate with the public should continue. Crisis managers often make promises to provide more information during the crisis period, and it is crucial that these promises be kept. The public's faith in a company depends on regular updates on its crisis response, recovery efforts, and investigations.

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Sechser et al. (2019) argued that AI is an ancient product throughout history and is modernity itself, but that it is due to the theories of cognition and learning, and to the development of mathematics through the ages, which led to the existence of theories in logic, probability, and computers; and the role of psychology, which studied the capabilities of the human mind and the way it works. According to Dick (2019), AI is a key enabler of progress in the IT sector. The emergence of the technological revolution and its intensification in the last two decades has played The biggest role for the emergence of the need to present serious and in-depth discussions of the characteristics of this tremendous technological progress and its applications that affected v in this field and have adopted the development strategy for tasks, operations, and management primarily (Ebert & Duarte, 2018).

Likewise, a study performed by Müller (2020) stated that the advances in artificial intelligence will affect administrative processes, and people will make decisions based on the AI's sorted and processed data. The software and hardware are the true owners of AI, and technology has a long history of actively and continuously changing and growing, with a focus on intelligent factors in devices that understand the environment and rely on taking actions to maximize the chances of success of the goal (Zanetti et al., 2020). Intelligent machines and programs with the capacity for abstract reasoning and creative originality. Artificial intelligence (AI) powered systems may improve their functionality over time. Before artificial intelligence can compete with or surpass human intelligence, several challenges must first be overcome (Hamet & Tremblay, 2017).

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Network data represents challenges and opportunities for organizations during times of crisis, including the speed of response through social media, where platforms are an essential tool for the organization to respond as quickly as possible and in the most direct way possible, and to disseminate information to the public on a global scale (Fischer et al., 2016).

Similarly, research undertaken by Hagar (2015), the study of how information and communication technologies (ICTs) are used in times of catastrophe is known as "crisis informatics" or "disaster informatics." Cooperation between human intellect and AI is crucial to enhancing business performance, but companies must first invest in educating their employees to utilize AI effectively. More than half of workers surveyed by Chen and Lin (2020) were opposed to having all or part of their work performed by artificial intelligence programs, supporting Knox's (2020) argument that human cadres often seek to reject technological advances in the administration of institutions. AI is a way to enhance employees' skills and the organization's understanding of their job, contributing to the growth of the company's information system and the speed with which it completes its responsibilities.

AI is applied in many different industries, including business and finance, healthcare and transportation, the arts, and more (Dejoux & Leon, 2018). It is also defined by Salem and Moselhi (2021) as an area of high-level computer science that seeks to mimic human cognition to replace people in carrying out certain tasks that normally need human intellect under carefully regulated and controlled circumstances. Dejoux and Leon (2018) defined artificial AI as "the intelligence that man creates in the machine or computers," that is, the intelligence of the man who provided it to the

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machine, or the science that seeks to make machines or computers accomplish activities that need intelligence. According to Hamet and Tremblay (2017), it is a subfield of computer science that seeks cutting-edge techniques to perform activities and draw conclusions that come close to, if not exactly match, human intelligence.

It's not unexpected that there are many definitions of artificial intelligence since there are several conceptions of human intelligence (Dejoux & Leon, 2018). While different definitions place emphasis on different aspects of AI (e.g., logic, behavior, performance, rationality, achievement of related tasks like problem solving, classification, identification, and learning), the overarching idea is that AI is the intelligence that humans create in machines and computers. A comprehensive and sustainable vision for development relies on AI systems to improve capabilities in managing poverty, climate change, and developing healthcare systems (Hudson, 2019). This is because AI is used to formulate a vision for development that takes into account all aspects of human life.

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2.9 Summary

The theoretical framework was explored in the second chapter, which reviewed prior research and provided an account of Umm Al Quwain Police. The study also provided an overview of the idea of crisis, crisis management, crisis response, organizational performance, and artificial intelligence. The research then discussed its underlying theory, the Situational Crises Communication Theory, before generating its hypotheses by a theoretical rejection of the links between the study model's components.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Examining the function that AI plays as a moderator between crisis response and organizational performance in the Umm Al Quwain Police Departments in the United Arab Emirates is the primary goal of this research. Unit of analysis, sampling strategy, data collecting method, questionnaire design, measurement instruments, planned data collection processes, experimental investigation, and suggested data analysis methodologies are all defined in this study.

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3.2 Research Design

A research study might be carried out in accordance with a predetermined analysis style. The methods and processes used to conduct an analysis are what ultimately determine the research design chosen. In order to accomplish the study's aims, it details the procedures for collecting and analysing data (Sekaran & Bougie, 2016). Because it investigates a field where other researchers have already done work, but where further preliminary research is needed to address other issues, this study has characteristics typical of prolegomena. Preliminary research study demands as stated above attend to the need to know the influence of the aforementioned, which has prompted this investigation.

Research study design refers to the overarching plan for answering the central research question by bringing together many components, such as the sample or groups, techniques, and ways of assignment (Trochim, 2006). Umm Al-Quwain, United Arab Emirates' (UAE) police department's crisis response and organizational performance: the moderating function of AI is the focus of the planned research methodology, which should include a survey of relevant stakeholders. Literature evaluations include four separate factors that needed to be investigated for their possible bearing on the topic of business continuity assistance.

The scientific method in quantitative research is often used as a pillar of the investigation strategy. This approach involves a series of methodical steps, beginning with the definition of the research problem and the formulation of testable hypotheses, continuing with the execution of the model and the collection of relevant data, and finally culminating in a discussion of the results numerically to determine whether or not the hypotheses were supported (Klassen et al., 2012).

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The study is following the systematic steps of scientific approach in research. Therefore, the study is seductive approach as it has hypotheses in an early stage and has an evaluation at late stage. However the main research methodical choice is quantitative research selection.

3.3 Study Population

Research populations are groups of people or things that have been identified as sharing similar features. Every member of a group or category has one essential quality that sets them apart from the others. The population has long been considered a crucial

variable in scientific studies. The population may be broken down into two groups, the target population and the accessible population, as noted by Castillo and Fernández-Canteli (2009). A study's target population, also known as the theoretical population, is the whole set of people or things to whom the study's findings are intended to be applied. However, researchers can only generalize their findings to the available population. What this means is that the research population represents a specific segment of the overall target population. Researchers take their samples from the available population. In light of recent statistics of employment in the Umm Al Quwain Emirate Police, the total population related to the employees at all levels is 4500.

Table 3. 1
The total population of Um Al-Qwain police departments

Department	**Employee's percentage**	**Number of employees**
Um Al Quwain Police General Command	18%	810
Old Um Al Quwain Punitive and Correctional Institution	12.3%	554
Falah Al-Mualla Comprehensive Police Station	11%	495
Al-Salaa Comprehensive Police Station	13%	585
City Comprehensive Police Station	10.4%	468
Department of Investigations	6.4%	288
Civil Defense Administration	11.7%	526
Comprehensive vehicle inspection	4%	180
Traffic and Licensing Services Center	6.2%	279
Al-Ra'fa Police Station	7%	315
Total	100%	4500

Source: Ministry of Interior (2024)

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3.4 Sample Size

Determining an adequate sample size is crucial to ensure statistical power and the reliability of research findings. This study employed a dual approach to justify the sample size: a standard sampling table and statistical power analysis. Sample sizes between 30 and less than 500 are claimed to be acceptable for most investigations by Roscoe et al. (1975), who give the 'rule of thumb' for choosing sample size. Alternatively, Hair et al. (2017) point out that a data range of 5-10 times the number of items included in the scale may be useful. Therefore, the number of respondents, or the size of the sample, should always be at least 10 times larger than the number of questions in the instrument. Thus, a sample size of 60 is required at the very least.

Cohen (1988) uses Power analysis to categorize effect sizes as small, medium, or big. There is a trade-off between effective size and sample size; a larger sample size requires a smaller effective size. This study uses the G * power analysis method to apply Cohen's (1988) rule of fingers to determine the optimal sample size. G * Power's settings are based on those of Dattalo (2008), with the exception that the power has been increased to 95%. F-test, "direct number regression: repaired design," and an R2 value of 0.95 were employed for statistical significance. G Power estimates the effective size to be 1/8.

However, the Kerjicie and Morgan formula is the standard method. Morgan Kerjice estimates a sample size of 354 is sufficient to draw valid conclusions from a population of 4,500. Table 3.2 illustrates the Morgan sample table, and the calculation, assuming 95% confidence and 5% marginal error, is shown in the text box below.

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Table 3. 2

Morgan's Sampling Table

Table for Determining Sample Size of a Known Population									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
Note: N is Population Size; S is Sample Size							*Source: Krejcie & Morgan, 1970*		

Source: Krejcie & Morgan (1970)

3.5 Sampling Technique

The study is focusing in a specific group, "employees in Umm Al Quwain Emirate Police". In addition, members of the population cannot have the same opportunities to be sampled due to difficulties in performing random sampling (cannot have a list of all employees), and the availability of the samples during the time of data collection is questionable. Therefore, quota sampling and not stratified random sampling will be applied. Quota sampling is similar to stratified random sampling in making stratus of population but differ in using convenience/purpose sampling to select samples at every sub-group (Hair et al., 2017). A subgroup is a logical collection of things. Size of business, gender, or line of work might all serve as dividers.

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Non-probabilistic sampling is used to create a quota sample by allocating both the population and the sample among the specified groups. Quota sampling is also known as categorical sampling. The total population of the study in Um Al-Qwain police departments, 4500 employees, and the target sample size of 354, according to Krejcie & Morgan's table of sample size, will be distributed among the three categories based on the population distribution rate (Knapp, 2013). Therefore, a quota sample is a suitable data collection technique for this particular study. Non-probability quota sampling was used for the design; some locations were selected using purposive techniques, and participants were recruited using the convenience sampling method based on their availability and willingness to fill out the survey at each location.

3.6 Questionnaire Design

The questionnaire is the primary research tool in this quantitative investigation. Employees of the Umm Al Quwain Police Department filled it out to help with data collection. Because questionnaire surveys collect more comprehensive data and may be used to assess both perception and performance (Hair Jr et al., 2017), they were chosen as the tool for this study. In addition, a questionnaire survey may contact many people all at once. It's faster and requires less effort than conducting interviews would (Sekaran & Bougie, 2016).

A multi-page questionnaire, including an introduction to the researcher and the study's goals, will be sent out to participants. The questionnaire has a number of questions, which are dispersed across demographic and perceptual categories. Perception surveys typically consist of five multiple-choice questions. All of the questions were derived from or similar to those used in earlier research. Each statement or question in the

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survey is accompanied by a Likert-scale rating prompt. All data was collected using a five-point Likert scale, with 1 representing a strong disapproval, extreme bad performance, or extreme dissatisfaction, and 5 representing a strong approval, extreme good performance, or extreme likelihood.

The closed-ended questions have been organized into seven distinct categories. There are five questions that make up the demographic questions, and they include topics including the respondent's gender, age, education level, experience, and income. Appendix displays all the questionnaire sections listed above.

The measurement used in this study was adopted from previous studies related to the present research (Churchill, 1979). The research model comprises three constructs. The first construct was the crisis response. This study employs a scale of 5-item developed by Coombs (2007) to measure crisis response based on the SCCT Theory. Second, organizational performance (effectiveness – efficiency - responsiveness). This study employs a scale of 4 items developed by Kaplan and Norton (2015) to measure effectiveness. The current study employs a scale of 5 items developed by WBCSD (2005) to measure efficiency. This research employs a scale of 4 items developed by Tiedemann et al., (2009) to measure Responsiveness. The third construct used in the current research is artificial intelligence. This research used a scale of 4 items developed by Wang et al. (2023) to measure artificial intelligence. These all variables used a five-point type rating scale, in which the respondents were being asked to indicate their responses to all questions. Based on the existing literature Table 3.3 presents the adapted survey instruments that captured the study variables.

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Table 3. 3
Measurement Items for the constructs

Variable	Item	Source
Crisis Response	The Umm Al-Quwain Police do not strive to remove any connections an organization had with a crisis by Attacking the accuser.	Coombs (2007)
	The Umm Al-Quwain Police do not strive to remove any connections an organization had with a crisis by Simply denial.	
	The Umm Al-Quwain Police attempts to reduce attributions of organizational control and reduce the negative effects of the crisis by Justification.	
	The Umm Al-Quwain Police seek to build a positive connection between an organization and its public by Ingratiation.	
	The Umm Al-Quwain Police seeks to build a positive connection between an organization and its public by Victim age.	
	The Umm Al-Quwain Police attempt to improve the organization's reputation by Recapping.	
	The Umm Al-Quwain Police attempts to improve the organization's reputation providing benefits.	
	Attempts to reduce attributions of organizational control and reduce the negative effects of the crisis by excusing.	
Effectiveness	Our department has a work climate that supports obtaining department objectives.	Kaplan and Norton (1992)
	Our department maintains a high level of employee health and safety.	
	Our department has successfully developed	

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Variable	Item	Source
	the procedure to improve the quality of service offered.	
	Our department utilizes the latest technology to increase effectiveness.	
	The support materials used by our department helped me to learn.	
	Strategic planning effectiveness increased effectiveness in achieving the organization's objectives.	
	The department provides an information on the organization's vision and mission.	
	Employees are kept informed on matters that affect their work and the working conditions	
Efficiency	The department sets environmental performance and efficiency targets and measure progress toward them, for our products/business areas.	WBCSD (2005)
	The department encourages suggestions to improve resource, energy, and material efficiency.	
	The department provides training in environmental management for our managers and staff.	
	The department writes a policy, supported by senior management that links environmental performance with our department performance.	
	The department assigns a person(s) to be responsible for environmental and eco-efficiency matters.	
	The department provides information to employees on how to improve their	

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Variable	Item	Source
	environmental performance.	
	The department determines the main environmental impacts.	
	The department tracks current and proposed environmental regulations and legislation that may impact security.	
Responsiveness	The needs of different people groups drive new service development activities in the firm.	Tiedemann, Birgele, and Semeijn (2009).
	When the department finds out that the people are unhappy with the quality of products/services, the department will take corrective actions immediately.	
	The frequency department makes use of a formal program where the department meets with people to determine their service needs.	
	The frequency company is involved in a formal internal process in which the company examines service and quality levels.	
	The department frequently uses a formal program asking people for feedback on practices or policies.	
	The department's ability to provide speedy service.	
	The department Delivers service on time.	
	The management of my department encourages employees to voice their problems.	
Artificial Intelligence	Employees are knowledgeable about artificial intelligence operations.	Wang et al. (2023)
	Our organization is skilled at analyzing market information using artificial	

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Variable	Item	Source
	intelligence. Our organization employs a manager to manage artificial intelligence. Our organization's members are linked by an artificial intelligence network. Employees can use AI applications or products to improve their work efficiency. Employees are always alert to the abuse of AI technology. When using AI applications or products, employees are alert to privacy and information security issues. Employees can choose the most appropriate AI application or product from a variety for a particular task.	

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3.7 Instrument Reliability

Scholars recommend doing a pilot study before conducting the full survey, since doing so may cut down on mistakes in the final questionnaire (Bryman, 2016). Thirty-five members of the Umm Al Quwain Police Department participated in the test run. Passengers in the pilot study took around 10 minutes to complete the questionnaire, indicating that the format was straightforward and easy to understand.

Cronbach's alpha is used to assess the internal consistency of the variables and determine their reliability in the research. A preliminary pilot study was performed to ensure the analysis's validity. Analysis of trustworthiness using Cronbach's alpha using data from SPSS 23. Cronbach's alpha findings are shown in Table 3.4, and all variables

have adequate scores ranging from 0.702 to 0.901. The Cronbach's alpha reliability coefficient should be more than 0.70 and less than 0.95 to indicate internal consistency. Values as high as 0.6 are accepted, however, in exploratory research (Bryman, 2016).

Table 3. 4
Pilot Study Reliability Tests Results

Variables	Cronbach's Alpha
Crisis Response	0.872
Effectiveness	0.836
Efficiency	0.821
Responsiveness	0.893
Artificial Intelligence	0.784

3.8 Data Collection

The researchers in this study used a direct-collect survey approach to reach their target population of police department workers in Umm Al Quwain. The researcher or their team may confidently cover the selected areas using this strategy. Direct collection seems to have a higher collection rate than online and email techniques, although it is more expensive overall (Nuno & John, 2015). Furthermore, the purpose of this research and the targeted group make it challenging to undertake any kind of online data collection.

Following the strategy outlined in the previous paragraph, the research team will go to the predetermined Umm Al Quwain police stations to interview prospective participants. After making arrangements with the administration of the Umm Al Quwain police department, a team of two researchers will go to various sites to gather data. It is expected that passengers would need at least 10–15 minutes to complete the

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questionnaires before the data is collected, data information will be gathered during 2023 - 2024. The research distributed the twofold amount of sample size (354*2=708) In order to achieve a high response rate (Hair et al., 20**17**, Elkheloufi & Yean, 2022). Following self-administration approach, total of 708 questionnaires have been distributed by the researcher to the targeted respondents in the Umm Al Quwain Emirate Police. Of the 708 questionnaires distributed, 426 were returned, yielding a response rate of approximately 60.2%. After data screening, 57 questionnaires were excluded due to incompleteness or response errors, resulting in 369 usable questionnaires for analysis. This final usable sample size exceeds the minimum required sample size of 354 as suggested by the Krejcie and Morgan sample size determination for a population of 4,500, and is therefore considered adequate for statistical analysis and drawing valid conclusions.

3.9 Data Analysis

Two programs are used to analyse statistical data strategically. At the outset, SPSS is utilized for data cleansing, frequency and descriptive analysis, and pilot test reliability. PLS methods implemented in SmartPLS software are used for the bulk of the analysis. The data is put through its paces using SmartPLS (Hair et al., 2017) in the following ways.

The Structural Equation Model (SEM) technique is a crucial part of modern multivariate statistical applications. Biologists, economists, educators, marketers, doctors, and scientists studying a wide range of social and behavioral phenomena have all used this method. SEM may be thought of as a statistical approach that uses a confirmatory method to analyze a structural theory of a phenomena (Li et al., 2020).

As previously discussed (Gefen et al., 2000; Hair et al., 2014), SEM may be seen as a theory that elucidates "causal" procedures that offer data on several variables. This method embodies two central ideas: a) that the studied causal processes can be provided by a set of structural (i.e., regression) equations, once measurement error is taken into account; and b) that these structural relations can be modelled visually to simplify and facilitate a clearer conceptualization of the theory and studied hypotheses.

The analysis results must be described in sufficient detail to be useful to both the researcher and the reader. In addition, the ability to condense a huge quantity of information into a digestible summary is an important role in both quantitative and qualitative methods (Roldán & Sánchez-Franco, 2012). Descriptive statistics are used to summarize large amounts of numerical data and present it in an easily digestible format for the purpose of analysis. The focus of descriptive statistics is on the process of data analysis, as well as the presentation of numerical data in the form of tables or graphs. They help scientists present their findings in a concise and clear manner by summarizing and describing numerical data (Fraenkel et al., 2011).

The structural equation model (SEM) is an extremely intricate statistical technique for evaluating connections between constructs, such as latent and observable variables. The theoretical principles are revealed via the use of eponymous phrases, which are referred to as latent variables. A circle is used to visually represent these model variables. Directly measurable items, measurements, and indicators of a variable are known as "observed variables," and they are shown as a square in the model's diagram (Fornell & Larcker, 1981).

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Both exogenous (independent) and endogenous (dependent) latent variables exist. A latent variable is a theoretical idea that is not immediately quantifiable but is nevertheless a valuable concept; it is characterized as a hypothetical construct or an unobservable variable. Multiple manifest variables, indicators, items, or observable measurements are required to draw any conclusions about a latent variable (Fornell & Larcker, 1981).

3.10 Summary

The study follows a systematic procedure, starting with a hypothesis and ending with its verification. The statistical analysis of this quantitative study made use of descriptive statistics, variance, and covariance. Since it investigates a topic that has previously been studied extensively, it might be classified as an exploratory one. The study is scientific in nature since it is based on a methodical chain of assumptions, tests, and conclusions. In terms of methodology, a literature-based English questionnaire was adapted to the study's context.

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CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

This section provides a description of the researcher's approach to analysing data and the rationale behind selecting a specific analytical technique. Prior to being imported into the SPSS.23 data editor, the surveys that were returned were examined for any missing information or replies that exhibited a linear pattern. These screenings adhere to the recommendations proposed by many authors, including Kumar et al. (2013). Subsequently, the researcher confirmed that the data did not contravene any fundamental assumptions regarding distribution and correlation, and that there were no outliers or missing values.

Descriptive statistics were employed to gain a more comprehensive understanding of the data's demographics and to characterize the sample. The evaluation of the model was conducted in two stages, employing both measurement and structural models, as recommended by other publications, such as (Hair et al., 2014; Henseler & Chin, 2010). The convergent and discriminant validity, composite reliability, and average variance of the measurement model were evaluated. Extracted based on the specified criteria established by Bagozzi and Yi (1988), Gefen et al., (2000), and Fornell and Larcker (1981).

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The researcher examined the hypothesis utilizing both mediated and unmediated channels, employing the bootstrapping approach as described by Hair Jr. et al. (2014). The structural model was evaluated using the Cohen (1988), Fornell and Cha (1994), and criteria for coefficient of determination (R2), effect sizes (f2), and predictive relevance (Q2). Subsequently, the adequacy of the model's fit was evaluated utilizing the method developed by Wetzels et al. (2009).

4.2 Response Rate

In order to achieve a high response rate, the researchers distributed a twofold sample size (354*2=708) (Hair et al., 2013; Elkheloufi & Yean, 2022). Following the self-administration approach, a total of 708 questionnaires have been distributed by the researcher to the targeted respondents in the Umm Al Quwain Emirate Police. A total of 708 questionnaires were issued to all employees in the Umm Al Quwain Emirate Police in the UAE for the purpose of this study. The researcher hand-delivered questionnaires to the pertinent divisions of the UAE government departments responsible for providing housing subsidies to their staff. Hence, a mere 426 questionnaires out of the total 708 were duly filled out and sent back.

Hence, the ultimate proportion amounts to 60%. Out of the 426 questionnaires that were collected, 57 were deemed unsuitable due to significant areas being left blank by the respondents. Since all required fields were completed by the respondents, the remaining 369 surveys were available for analysis. The result yielded a response rate of 52%, which was considered genuine. Based on the findings of Sekaran and Bougie (2016), a survey response rate of 30% is considered acceptable. Therefore, the response rate of 52% observed in this case is more than enough for analysis.

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Table 4. 1
Response Rate of the Questionnaire

Item	Frequency	Percentage %
Distributed questionnaire	708	100
Returned questionnaires	426	60
Unusable questionnaires	57	8
Useable questionnaires	369	52

4.3 Data Preparation and Screening

Preliminary data screening is crucial in multivariate analysis since it identifies any problems with the study's underlying assumptions (Hair et al., 2013). Early data screening can enhance researchers' utilization of gathered data. The data was entered and coded using SPSS version 23, which is a statistical application known as the Statistical Package for the Social Sciences. The initial specifications of each component included a unique serial number to facilitate the quick identification of any abnormalities. Each segment of the survey is assigned a specific name. Subsequently, the researcher assigns a label to each survey item and categorizes it according to the relevant demographic category.

In addition, items related to Crisis Response are indicated by the letters CR1 to CR5; items related to Effectiveness are indicated by the letters Et1 to Et4; items related to Efficiency are indicated by the letters Ec1 to Ec5; items related to Responsiveness are indicated by the letters Rs1 to Rs4; items related to Artificial Intelligence are indicated by the letters AI1 to AI4. After entering and coding the data, various analyses were conducted to ensure its integrity. These studies included assessing missing values,

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testing for normality, examining multicollinearity, evaluating non-response bias, checking for common method variance, and conducting descriptive analysis (Hair et al., 2017; Tabachnick & Fidel, 2007).

4.3.1 Analysis of Missing Values

The presence of missing values impairs the effectiveness of any analysis technique (Hair et al., 2014). According to Cohen and Cohen (1983), problems may arise even if the missing values account for less than 10% of the entire dataset. There were no evident omissions in either the research variables or the demographic information.

4.3.2 Normality Test

Data that follows a normal distribution forms a symmetrical bell-shaped curve, with the majority of scores concentrated in the middle and fewer scores at the extremes (Gravetter et al., 2021). The majority of statistical analysis adheres to the normal distribution of data, particularly through the use of covariance-based structural equation modelling (Hair et al., 2017). PLS-SEM does not make any assumptions about the distribution of data because it is a variance-based method (Hair et al., 2014). Various research conventionally claim that Partial Least Squares Structural Equation Modeling (PLS-SEM) is capable of accurately estimating a model even when the data is substantially non-normal (Reinartz et al., 2009; Wetzels et al., 2009; Cassel et al., 1999).

However, the conventional belief that PLS-SEM is effective in handling non-normal data has come into question. Hair et al. (2017) argue that evaluating the distribution of data is crucial for assessing inferential statistics, but Lohmöller (1989) is hesitant to

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do normality tests. Recently, Hair et al. (2013) recommended conducting a normality test on the dataset. This is because data that is highly skewed or has kurtosis can cause the estimates of standard error obtained from bootstrapping to be inflated. As a result, this can lead to an underestimation of the statistical significance of path coefficients (Dijkstra & Henseler, 2015).

Tabachnick and Fidell (2007) recommend that the assessment of data normality should involve the use of graphical and statistical methods, such as probability plots (Q-Q Plot), scatter plots, Kolmogorov-Smirnov and Shapiro-Wilks tests, and evaluation of Skewness and Kurtosis. Hair et al. (2014) propose that instead of using the Kolmogorov-Smirnov and Shapiro-Wilk tests, one could consider assessing skewness and kurtosis to assess the normality of the data. These tests provide more comprehensive criteria for determining if the data deviates significantly from a normal distribution. In addition, skewness and kurtosis are commonly used for checking normalcy because of their simplicity, resilience, and capacity to offer a concise depiction of the data distribution's form. These characteristics make them ideal instruments for evaluating normality.

In addition, Hatem et al. (2022) suggests that when the sample size is 200 or greater, it is more important to examine the form of the graphical data distribution rather than focusing on the values of skewness and kurtosis. This is because a larger sample size decreases the standard error, which can lead to inflated skewness and kurtosis statistics. The skewness and kurtosis statistics fall within the range of ±1.0, or the z-value remains within the limit of ±2.58. This indicates that the data set follows a normal distribution (Hair et al., 2017). The skewness value is less than 1.5, while the

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kurtosis value is less than 3.0, suggesting that the data is moderately normal (Kim, 2012). The z-value is generated by dividing skewness or kurtosis by the standard error (Pallant, 2011).

Table 4. 2
Skewness and Kurtosis Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
CR	369	1.00	5.00	3.715	0.831	0.283	0.294
Et	369	1.00	5.00	3.574	0.644	0.315	0.321
Ec	369	1.00	5.00	3.295	0.863	0.221	0.323
Rs	369	1.00	5.00	3.224	0.797	0.517	0.175
AI	369	1.00	5.00	3.386	0.636	-0.423	-0.142

Note: CR: Crisis Response, Et: Effectiveness, Ec: Efficiency, Rs: Responsiveness, AI: Artificial Intelligence.

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4.3.3 Multicollinearity Test

Multicollinearity is the presence of a strong connection between two or more exogenous latent components in a multiple regression model (Sekeran & Bougie, 2016; Hair et al., 2014). The presence of multicollinearity among the exogenous latent components can greatly distort the estimations of regression coefficients and the statistical significance of the exogenous constructs (Cooper & Schindler, 2014; Hair et al., 2013; Chatterjee & Yilmaz, 1992). Furthermore, the presence of multicollinearity decreases the path coefficient (beta) value and increases the standard error, hence diminishing the statistical significance by lowering the t-value (Hair et al., 2007; Hatem et al., 2022; Tabachnick & Fidell, 2007).

The ideal scenario is that exogenous and endogenous constructs exhibit a strong positive linear association, while a weak link is anticipated among exogenous latent constructs. In the study of multiple regression models, such as SEM analysis, it is expected that the exogenous constructs are not correlated. This is because when there is a significant correlation among independent variables (known as multicollinearity), the link between independent and dependent variables becomes weaker. Therefore, the impact of predictor factors on the outcome variables is challenging to elucidate because of multicollinearity (Hatem et al., 2022; Hair et al., 2010). Consequently, the presence of multicollinearity is assessed due to its negative influence on the study's findings and conclusions.

Researchers commonly employ exogenous constructs such as the correlation matrix, variance inflation factor (VIF), and tolerance value evaluation to identify multicollinearity in their studies (Peng & Lai, 2012; Chatterjee & Yilmaz, 1992). Both methods were employed in this study to detect multicollinearity among the exogenous latent variables. The correlation matrix assesses the degree of consistency between the two predictor variables (Hair et al., 2013; Tabachnick & Fidell, 2007). Multicollinearity is anticipated when the correlation coefficient between two exogenous variables exceeds 0.90. The exogenous latent constructs in Table 4.3 do not exhibit multicollinearity.

In addition, multicollinearity can be detected through the examination of VIF and tolerance values. There was a significant multicollinearity if the tolerance values were below 0.10 or the VIF values were above 10.0 (Hair et al., 2012; Amoroso & Cheney, 1991). Likewise, a study performed by Hair et al. (2013), it is advised to have tolerance

values greater than 0.20 and VIF values of 5.0 in order to indicate the absence of multicollinearity among the exogenous latent components. Table 4.4 displays the tolerance and VIF (Variance Inflation Factor) values of the exogenous constructs for the purpose of multicollinearity analysis.

Table 4. 3
Correlation Matrix

		CR	Et	Ec	Rs	AI
CR	Pearson Correlation Sig. (1-tailed)	1				
Et	Pearson Correlation Sig. (1-tailed)	.182**	1			
Ec	Pearson Correlation Sig. (1-tailed)	.352**	.543**	1		
Rs	Pearson Correlation Sig. (1-tailed)	.192**	.186**	.25 5**	1	
AI	Pearson Correlation Sig. (1-tailed)	.314**	.139*	.16 3**	.57 6**	1

** Correlation is significant at the 0.01 level (01-tailed)

Table 4. 4
Regression Analysis

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	**Std. error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
Model								
1	(constant)	2.377	0.265			0.000	0.663	1.466
	(constant)	2.284	0.112			0.000	0.674	1.521
	(constant)	2.175	0114			0.000	0.645	1.592

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	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	**Std. error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
CR	1.832	0.084	0.106	7.106	0.000	0.343	3.083
Et	2.391	0.185	0.108	5.744	0.000	0.804	1.274

a. Dependent Variables: Et, Ec, Rs

4.4 Descriptive Statistical Analysis

Table 4.5 provides a concise overview of how the samples are distributed based on demographic variables. The total number of samples included in the analysis is 369. Male respondents constituted the majority, accounting for 68.7% of the total. The bulk of respondents (39.3%) fell within the age category of 25-39 years. Furthermore, when it comes to income, individuals who earn between 8001-16000 AED account for 32.8 percent of the overall amount. Furthermore, regarding the credentials or educational attainment of the employees, it is evident that the majority (28.4%) of respondents possess a Diploma. Furthermore, the data on the working experience of the respondents reveals that 34.2% of them had a working experience of 15 years and more.

Table 4. 5
Demographic Analysis

Demographic	**Categories**	**Frequency**	**Percentage**
Gender	Male	254	68.7
	Female	115	31.3
	Total	**369**	**100**
Age	18-24	58	15.6
	25-39	145	39.3
	40-49	132	35.9
	Over 50 years old	34	9.2
	Total	**369**	**100**

Income	**Less than 8000 AED**	**153**	**41.4**
	8001-16000 AED	121	32.8
	16001-25000 AED	68	18.3
	More than 25001 AED	27	7.5
	Total	**369**	**100**
Education level	PHD	**32**	8.7
	Master	53	14.3
	Bachelor	88	23.8
	Diploma	105	28.4
	High school	91	24.8
	Total	**369**	**100**
Experience	1-5	56	15.3
	6-10	92	24.8
	11-15	95	25.7
	More than 15 years	126	34.2
	Total	**369**	**100**

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4.5 Evaluation of PLS-SEM Result

A reliability assessment of PLS-SEM was conducted to gain understanding of the external model's dependability following a standard descriptive analysis of the main variables. The significance of the route coefficients was subsequently shown by an analysis of the inner model. The factor-loadings results are reported in the analysis of PLS-SEM.

The entirety of the data has been extracted from sources that were previously made available to the public, as explicitly stated in Chapter 3. This study assesses the reliability and precision of tools used to measure ideas. The external model implies that the study variables are unidimensional within the context of a factor analysis. The

structural models have been evaluated, and the connection between the underlying variables has been investigated, following the confirmation of the reliability and validity of the measures used in this study.

Once the normality of the data has been measured, the next step involves evaluating both the outer and inner models (Vinzi et al., 2010; Hair et al., 2013). This study utilized PLS-SEM to evaluate both the outer model and inner models. Subsequently, the direct and mediated effects were examined using PLS-SEM. The links between the constructs in the theoretical models were measured using Smart PLS 3.0 (Sarstedt et al., 2014).

Prior to commencing the PLS-SEM analysis, it is crucial to establish a reliable and dependable model. It is necessary to establish clear definitions for indicators in order to distinguish between those that are formative and those that are reflective. It is important to note that the process of testing a formative measurement of a model is distinct from reviewing a reflective measurement model. Therefore, it is necessary to keep in mind that the configuration of the model is of utmost importance.

As all the variables in the study were considered to have only one dimension, the analysis did not impact the examination of second-order structures that consist of two levels of components. This investigation examines the hierarchy and interconnectedness of various constructs using eight latent variables. These variables consist of six independent variables (realistic job sampling, performance-oriented remuneration, work-life balance, perceived organizational support, mentor ship,

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training, and development) and one mediating variable (leadership competencies). The dependent variable in this research is employee performance.

4.6 Assessment of Measurement Model (Outer Model)

The statistical method used in structural equation modeling (SEM) that is based on variance is referred to as partial least squares (PLS). Ringle et al. (2012) recommended use PLS-SEM for evaluating the theoretical model of the study. A Partial Least Squares Structural Equation Modeling (PLS-SEM) assesses both the measurement and structural models through two distinct approaches. Two approaches, formative and reflective measurement, are employed to assess the validity and reliability of the model.

The reflective measures are illustrated initially by arrows emanating from the construct and directed towards the indicators. The formative measure is determined by the weights assigned to the arrows that connect the observed variable to the constructs. Moreover, all of the indicators in this study are measures that reflect or indicate something. Following Henseler et al. (2009)'s recommendation, this research employed a two-step strategy to ensure accurate findings using the PLS-SEM route modelling technique. Henseler et al. (2009) suggest a two-stage process consisting of measurement and structural modelling.

4.6.1 Indicator Reliability

The standard PLS algorithm was utilized (Figure 4.1) in Smart PLS software 3.0, as described by Ringle et al. (2015), in order to assess the loading of the indicators, cross-loadings, composite reliability, and average variance extracted (AVE). Generally, the

loading value for an item should exceed 0.70. The references cited are Hair et al. (2011) and Henseler et al. (2009). Nevertheless, Hulland (1999) suggested a criterion of 0.4. Any indication with an outside loading below 0.4 should be removed from the measurement model. Similarly, Hair et al., (2014) posited that "indicators with outer loadings between 0.40 and 0. 70 should be considered for removal from the scale only when deleting the indicator leads to an increase in the composite reliability or the average variance extracted above the suggested threshold value" (p. 103). The PLS-SEM path model with outside loadings is shown in Figure 4.1. Therefore, there is no need to delete anything to increase the construct's CR and AVE values (Table 4.6).

Table 4. 6
Indicators Outer Loadings

Latent Constructs	**Indicators**	**Standardized Loadings**
Crisis Response	CR1	0.534
	CR2	0.681
	CR3	0.622
	CR4	0.788
	CR5	0.821
	CR6	0.813
	CR7	0.683
	CR8	0.718
Effectiveness	Et1	0.815
	Et2	0.822
	Et3	0.841
	Et4	0.840
	Et5	0.855
	Et6	0.828
	Et7	0.776
	Et8	0.792
Efficiency	Ec1	0.709
	Ec2	0.790
	Ec3	0.803
	Ec4	0.843
	Ec5	0.818
	Ec6	0.797

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Latent Constructs	Indicators	Standardized Loadings
	Ec7	0.766
	Ec8	0.771
Responsiveness	Rs1	0.777
	Rs2	0.820
	Rs3	0.821
	Rs4	0.863
	Rs5	0.860
	Rs6	0.832
	Rs7	0.853
	Rs8	0.863
Artificial Intelligence	AI1	0.801
	AI2	0.794
	AI3	0.797
	AI4	0.799
	AI5	0.825
	AI6	0.816
	AI7	0.840
	AI8	0.798

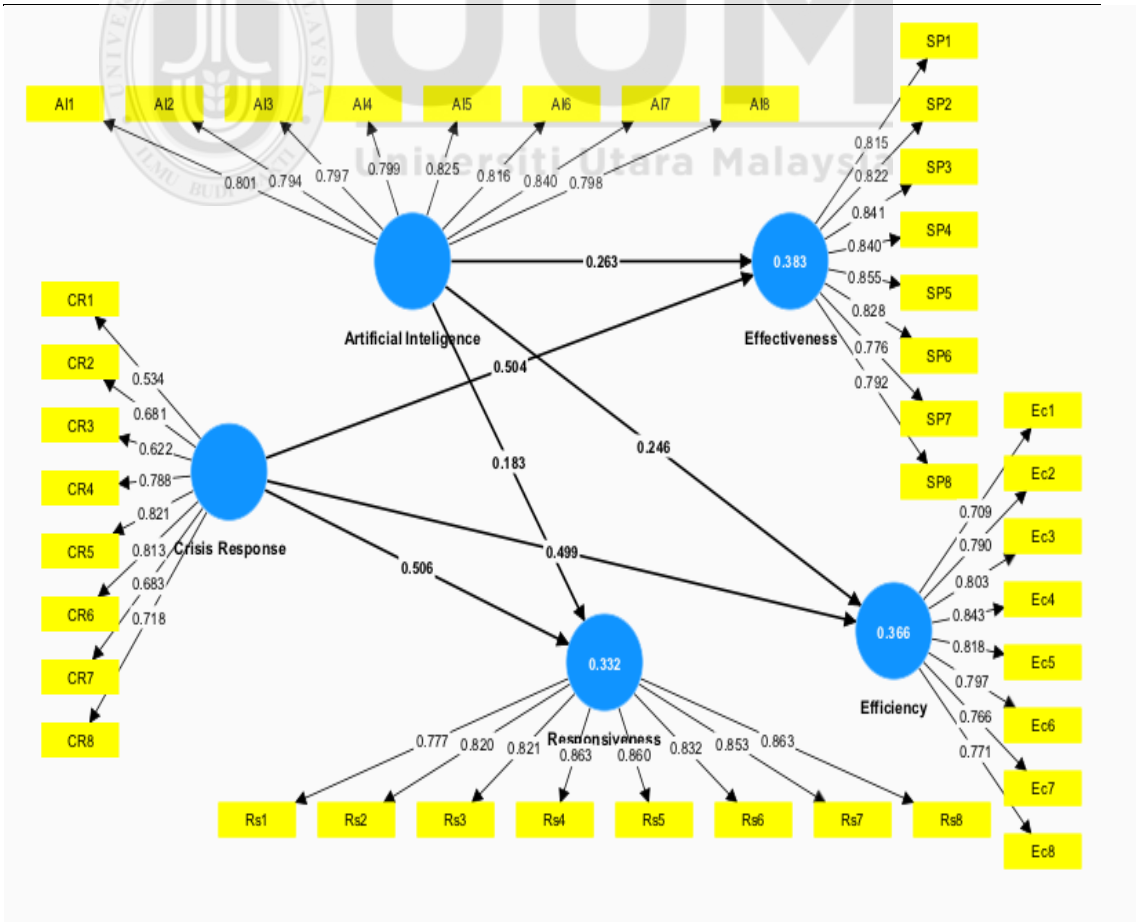

Figure 4. 1 The PLS-SEM Path Model

4.6.2 Cronbach's Alpha

Reliability and validity are the main criteria used in PLS-SEM analysis to evaluate the outer model in Cronbach's Alpha (Hair et al., 2013). The results of the study are contingent upon the measurements employed to assess the relationship between constructs in the inner model. Once the constructs have been validated, the next step is to assess the reliability of the variables used in the research. This can be done by examining the factor loading, which has shown satisfactory findings. Table 4.7 displays the reliability of factors, including crisis response, effectiveness, efficiency, responsiveness and artificial intelligence.

Table 4. 7
Cronbach's Alpha

Variables	**Values**
Crisis Response	0.859
Effectiveness	0.931
Efficiency	0.912
Responsiveness	0.939
Artificial Intelligence	0.925

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The table 4.7 displays the Cronbach's alpha values of the variables. Cronbach's alpha was employed to evaluate the reliability of all variables in the study. The Cronbach's alpha values ranging from 0.859 to 0.939 indicate a high level of internal consistency among the items used to measure the variables. All of the variables in Cronbach's alpha exceed the specified threshold level of 0.7.

4.6.3 Composite Reliability

Internal consistency refers to the uniformity of results across test items. Composite reliability is used to assess internal consistency. Internal consistency is a technique for guaranteeing that the items used to assess the construct generate the same findings

(Hair et al., 2013). As a result, composite reliability was employed in this research to investigate internal consistency. Similarly, Cronbach's alpha does not assume an equivalent indicator loading of constructs (Hair et al., 2013). In Composite reliability that varies between 0 and 1; the computed value for composite reliability of each variable must not be less than 0.60, which is the composite reliability threshold level (Henseler et al., 2009).

When the value reaches 0.70, however, it is considered ideal and clearly more acceptable (Hair et al., 2010). As a consequence, it is deemed more sufficient if the estimated values are more than 0.70 (Hair et al., 2010). The composite reliability findings are shown in Table 4.8. Based on the composite reliability values in Table 4.8 below, it demonstrates that the measurement model is dependable.

Table 4. 8
Composite Reliability

Variables	**Composite Reliability**
Crisis Response	0.891
Effectiveness	0.943
Efficiency	0.929
Responsiveness	0.949
Artificial Intelligence	0.938

The composite reliability has been judged to exceed the acceptable threshold value of 0.70, based on the values of all variables. The minimal composite dependability rating for crisis response is 0.891. The variable with the greatest composite dependability value is responsiveness, which has a value of 0.949. The other variables, artificial intelligence, effectiveness, and efficiency, have values of 0.938, 0.943, and 0.929, respectively.

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4.6.4 Average Variance Extracted

After proving the reliability of the scale, the next step was establishing convergent validity through the use of structural equation modeling. The Average Variance Extracted (AVE) is a metric used to identify the level at which the measurements of a construct converge. Convergent validity, as defined by Henseler et al. (2009), is the extent to which similar constructs that are conceptually related are measured and connected.

Convergent validity pertains to the extent of concurrence between measurements of distinct items inside the same concept (Hair et al., 2013). A threshold level of 0.5 or higher is deemed sufficient to guarantee convergent validity (Hair et al., 2017; Hair et al., 2013). A score of 0.50 for the AVE implies that the constructs have significant convergent validity.

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An alternative perspective is to consider the latent concept, which explains 50% of the variation in its indicators and has satisfactory convergent validity (Hair et al., 2013). Consequently, in this investigation, AVE values were used to evaluate the convergent validity. Table 4.9 reveals that the AVE value for all constructions above the threshold value of 0.50, as shown by Henseler et al. (2009) and Hair et al. (2013). Since the AVE values range from 0.509 to 0.700, there are no worries about the convergent validity of the data acquired for this investigation.

Table 4. 9
Average Variance Extracted (AVE)

Variables	Average Variance Extracted (AVE)
Crisis Response	0.509
Effectiveness	0.675
Efficiency	0.621
Responsiveness	0.700
Artificial Intelligence	0.654

The AVE values have been computed in Table 4.9. The values for Crisis Response, Effectiveness, Efficiency, Responsiveness, and Artificial Intelligence are 0.509, 0.675, 0.621, 0.700, and 0.654, respectively. As per Hair et al. (2013), all the estimated values for the constructions surpass the threshold of 0.5, indicating that each construct is valid and should be included in the model. There is no need to remove any structures. After calculating the average variance extracted (AVE), the subsequent task is to ensure internal consistency.

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4.6.5 Convergent Validity

Convergent validity is established when there are positive correlations between indicators that measure the same concept (Hair et al., 2013). Convergent validity is based on the assumption that there would be a substantial amount of common variance among the different components of a specific notion (Hair et al., 2014). The convergent validity is assessed based on the outer loadings of the indicators and the average extracted variance (Hair et al., 2014; Hair et al., 2012; Fornell & Larker, 1981). The indicator loading squared, also known as the average variance extracted (AVE), is calculated as the average of the squares of all indicator loadings for a specific construct (Hair et al., 2013; Fornell & Larker, 1981). Convergent validity is determined by

following Fornell and Larcker's (1981) guidelines, which involve examining the average variance explained (AVE) of the latent concept.

Hair et al. (2014) propose that a latent construct should account for a minimum of 50% of the variation observed among the indicators in order to be included for evaluation. According to Hair et al. (2010), the minimum value for the outer loading must be 0.708 for the squared outer loading to be at least 0.50 for AVE. Chin (1998) determined that the AVE requirement is equal to or greater than 0.50. If the AVE is considered to be 0.50, it is satisfactory as it indicates that the latent variable is capable of explaining the data.

The convergent validity of the latent constructs is supported by a range of 0.5732 to 0.806 for the Average Variance Extracted (AVE) values. The table 4.10 shows that the Work-Life Balance construct has the highest AVE, while the Leadership Competencies construct has the lowest AVE. The study's conclusions are strong due to the sufficient diversity of latent components seen in this investigation.

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4.6.6 Discriminant Validity

After verifying the item loadings and indicating, it proceeded to explore the discriminant validity, reliability, and validity. Discriminant validity measures the degree to which one thought differs from another within the model. The measurement of constructs that lack both conceptual and practical connections to each other has been discussed by Gerbing and Anderson (1988) as well as Hair et al. (2013). The Fornell-Lacker criteria are the predominant approach for evaluating discriminant validity, as indicated by its frequent usage (Hair et al., 2013).

Discriminant validity is established when the square root of the average variance extracted (AVE) of a variable exceeds its inflated correlation with any other latent variable (Hair et al., 2013; Henseler et al., 2015). The discriminant validity in this study was demonstrated by comparing the square root of the average variance extracted (AVE) for each construct to the relationships reported in the correlation matrix. The outcomes of the Fornell-Larcker Criterion evaluation, employing the square root of the constructs, are displayed in Table 4.10. The square root of the AVE, emphasized in bold, exceeds its excessively strong association with other variables. The concept's discriminant validity was evaluated as a consequence (Hair et al., 2013; Henseler et al., 2015).

Table 4. 10
Discriminant Variable

	AI	*CR*	*Et*	*Ec*	*Rs*
AI	***0.772***				
Et	*0.398*	***0.625***			
CR	*0.382*	*0.519*	***0.868***		
Ec	*0.310*	*0.600*	*0.539*	***0.863***	
Rs	*0.160*	*0.159*	*0.174*	*0.144*	***0.809***

Note: The values in the diagonals cells (bold) are the square root of the AVE while the un-bolded values are the correlations.

In addition, analyzing cross-loading is another method to assess the discriminant validity of the concepts. In this technique, discriminant validity is determined by comparing the indicator loadings with the cross-loadings (Hair et al., 2017; Chin, 1998). Chin (1998) states that the loadings of a particular construct should be higher than the loadings of other constructs, known as cross-loadings. Nevertheless, the presence of cross-loadings that possess greater value than the outer loadings of the items suggest a problem with discriminant validity. The cross-loading approach is

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considered liberal for assessing discriminant validity (Hair et al., 2014). Table 4.11 displays the outer and cross-loadings of the indicators.

Table 4. 11
Cross Loadings

Constructs	AI	CR	Ec	Et	Rs
AI1	**0.634**	0.522	0.454	0.361	0.248
AI2	**0.636**	0.593	0.373	0.224	0.302
AI3	**0.901**	0.444	0.282	0.282	0.183
AI4	**0.883**	0.394	0.383	0.433	0.191
AI5	**0.832**	0.525	0.476	0.364	0.274
AI6	**0.782**	0.521	0.379	0.232	0.321
AI7	**0.789**	0.432	0.292	0.278	0.173
AI8	**0.802**	0.383	0.374	0.412	0.198
CR1	0.302	**0.803**	0.333	0.464	0.229
CR2	0.447	**0.878**	0.371	0.212	0.352
CR3	0.463	**0.645**	0.272	0.418	0.208
CR4	0.342	**0.577**	0.317	0.323	0.118
CR5	0.515	**0.725**	0.381	0.183	0.291
CR6	0.453	**0.641**	0.278	0.413	0.214
CR7	0.328	**0.612**	0.313	0.321	0.127
CR8	0.524	**0.723**	0.384	0.192	0.282
Ec1	0.583	0.193	**0.766**	0.318	0.143
Ec2	0.423	0.541	**0.585**	0.244	0.309
Ec3	0.362	0.332	**0.751**	0.390	0.259
Ec4	0.281	0.272	**0.730**	0.232	0.109

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Constructs	AI	CR	Ec	Et	Rs
Ec5	0.313	0.442	**0.629**	0.490	0.220
Ec6	0.284	0.275	**0.735**	0.236	0.129
Ec7	0.324	0.446	**0.631**	0.495	0.238
Ec8	0.228	0.263	**0.721**	0.247	0.132
Et1	0.293	0.317	0.413	**0.938**	0.434
Et2	0.232	0.222	0.232	**0.867**	0.346
Et3	0.161	0.111	0.211	**0.940**	0.224
Et4	0.197	0.143	0.443	**0.939**	0.238
Et5	0.291	0.311	0.419	**0.941**	0.437
Et6	0.236	0.223	0.235	**0.821**	0.341
Et7	0.165	0.116	0.210	**0.943**	0.231
Et8	0.192	0.154	0.423	**0.931**	0.232
Rs1	0.243	0.142	0.123	0.191	**0.765**
Rs2	0.132	0.173	0.144	0.233	**0.895**
Rs3	0.143	0.185	0.137	0.364	**0.748**
Rs4	0.434	0.293	0.321	0.187	**0.807**
Rs5	0.241	0.149	0.126	0.198	**0.752**
Rs6	0.136	0.177	0.149	0.241	**0.884**
Rs7	0.142	0.181	0.132	0.356	**0.741**
Rs8	0.439	0.282	0.328	0.182	**0.812**

Table 4.11 demonstrates that the outer loadings of the indicators are greater than their cross-loadings, indicating that the constructs possess satisfactory discriminant validity for future investigation.

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4.7 Assessment of Structural Model

As previously mentioned, the results of the inner model (structural model) were analysed following an examination of the measurement model (outer model) and validation of the model's validity and reliability. The assessment of the inner model comprises assessing the research's hypotheses in light of the reviewed literature. Determination, predictive relevance, and construct linkages were to be evaluated. As mentioned in the section on the formulation of hypotheses in the first chapter, there are six hypotheses in total three direct effect and three moderating hypotheses. The structural model is evaluated using a traditional bootstrapping method, and the route coefficients of the model are assessed using 5,000 bootstrap samples in total (Hair et al., 2017; Henseler et al., 2009).

Additionally, using criteria from (Chin, 1998) and (Hair et al., 2013), Smart PLS3 bootstrapping was utilised to evaluate and test hypotheses for each of the three models (main effect, mediating effect, and moderating effect). Using criteria put out by earlier researchers, the coefficient of determination (R^2) is also used to analyse the variation in the result variable reduced by the predictor variables (Chin, 1998; Cohen, 1988). Additionally, the Cohen (1988) criteria are used to evaluate the effect size (f^2) of all exogenous factors other than the mediator.

4.7.1 Results of Direct Hypotheses Testing

The study's first three hypotheses were examined to meet the study's objectives, answer the questions provided in the study, and synthesise the topic under consideration. A comprehensive model study of structural equation modelling was performed to evaluate the idea.

Through the researchers' clear vision of the data, structural equation modelling was able to get the details. the hypothesis was developed in light of the underlying theory, and the examined literature was clarified or rejected. Following an assessment of the outer model, the direct relationships between the independent variable (crisis response) and the endogenous variables (effectiveness, efficiency and responsiveness) in this research were examined.

The PLS-SEM Algorithm was utilised to study the size of path coefficients. The path's indication reflected the type and direction of the relationship. PLS-SEM bootstrapping was performed using Smart PLS 3 after getting the route coefficient to estimate the significance of correlations. The original number of cases has been applied, i.e., 280. Moreover, 5000 bootstrapping samples were utilised to accomplish the bootstrapping (Hair et al., 2014; Henseler et al., 2009).

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The initial model emphasised the analysis of direct relationships between the independent variable (crisis response) and the endogenous variables (effectiveness, efficiency, and responsiveness) in this research (H1 to H3). Table 4.12 provides the specifics of each path as well as their facts.

Based on the PLS SEM algorithms and the method of bootstrapping, the path coefficients have been tested. The findings showed that all the exogenous constructs have a significant relationship with the endogenous construct used in the structural equation modelling. The results of bootstrapping (Sarstedt et al., 2014) by using the bootstrapping process with 369 cases and 5,000 sub samples, identified that the relationship is significant and the influence the independent variables is significant

over the dependent variable, hence it is right to say that (crisis response) have a strong relationship with effectiveness, efficiency, and responsiveness as the calculated p values are below 0.05.

Regarding the result of H1, i.e., crisis response has a significant relationship with effectiveness (β = 0.477; t = 13.467; p<0.01), which is H1. Similarly, regarding H2, i.e., crisis response has a significant relationship with efficiency (β =0.479; t=12.853; p<0.01). Therefore, H2 is also supported. Likewise, regarding H3, i.e., crisis response has a significant relationship with responsiveness (β=0.490; t=13.355; p<0.05); therefore, H3 is also supported.

Table 4. 12
Path Coefficients

Hypothesis	Relationship	Std. Beta	Std. error	T-Value	P values	Decision
H1	**CR-> Et**	0.477	0.035	13.467	0.000	**Supported**
H2	**CR-> Ec**	0.479	0.037	12.853	0.000	**Supported**
H3	**CR-> Rs**	0.490	0.037	13.355	0.000	**Supported**

Note: Values are calculated using PLS bootstrapping routine with 306 cases and 5000 samples (one-tailed).
***indicates the item is significant at the p<0.01 level, ** indicates the item is significant at the p<0.05 level, and * indicates the item is significant at the p<0.1 level.

4.7.2 Results of Moderating Hypotheses

According to Henseler and Chin (2010), "moderating impact is evoked by a variable whose deviation affects the strength or the path of a correlation among exogenous and endogenous variables". Likewise, a study performed by Henseler and Chin (2010), stated that there are four ways to analyze the moderating effect in PLS-SEM: the orthogonalizing approach (Little et al., 2006), the hybrid approach (Wold, 1982), the 2-stage approach (Chin et al., 2003; Henseler & Fassott, 2010), and the product

indicator approach (Chin et al., 2003). Nevertheless, as shown by (Hair Jr et al., 2014), this study has analyzed the moderating influence using the product indicator approach. The purpose of the product indicator approach is to generate all possible combinations of indicators by multiplying all possible outcomes from the two sets of indicators (predictor and moderator). As a result, it is assumed that this technique is suitable for testing the moderating effect.

For testing the moderating effect of Artificial Intelligence (AI), Smart PLS 3.0 was used to create the structural model (Figure 4.3) and to examine the effect (Hair Jr et al., 2014). The findings indicate that Artificial Intelligence has a moderating effect on the relationship between crisis response and effectiveness, as indicated by Table 4.13, where the values are (β=0.138, t=3.905, p<0.01). As a result, the hypothesis (H4) could be verified. Similarly, the results show that artificial intelligence has moderating influence on the association between crisis response and efficiency, with the values being (β=0.105, t=2.929, p<0.01). As a result, hypothesis (H5) was supported. Additionally, concerning H6, that is, the findings showed that Artificial Intelligence has a moderating effect on the relationship between crisis reaction and responsiveness, with the values being (β=0.080, t=2.292, p<0.05). Therefore, hypothesis (H6) was supported.

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Table 4. 13
Testing the Moderating Effect of Artificial Intelligence

Mediating Paths	Std. Beta	Std. error	T-Value	P values	Decision
CR -> AI -> Et	0.138	0.035	3.905	0.000	Supported
CR -> AI -> Ec	0.105	0.036	2.929	0.004	Supported
CR -> AI -> Rs	0.080	0.035	2.292	0.022	Supported

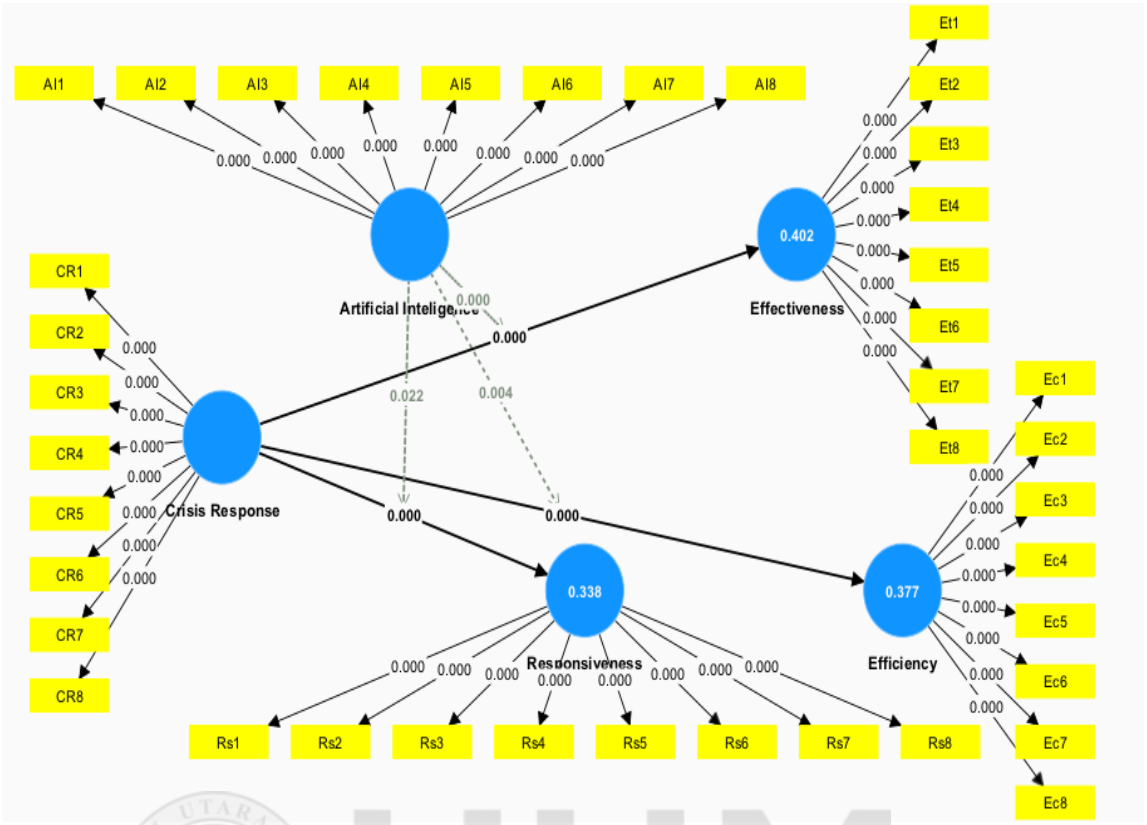

Figure 4. 2 Moderating Effect Model

4.7.3 Assessment of Coefficient of Determination (R^2)

The coefficient of determination (R^2) quantifies how much variance in the model's exogenous latent construct can be ascribed to the endogenous latent construct (Hair et al., 2013; Henseler et al., 2009). Instead, the coefficient of determination (R-squared value) represents the proportion of variance in the dependent variables that can be accounted for by the predictor variables (Hair et al., 2010; Elliott & Woodward, 2007). R^2 is the total of all latent factors outside the original model's impacts on the latent factor inside the original model (Hair et al., 2014). Because the proportion of variance in variance-based structural equation modelling is used to assess the quality of a structural model (Götz et al., 2009), the assessment of variance is given more weight in PLS-SEM path modelling (Hair et al., 2012; Henseler et al., 2009).

According to Hair et al. (2013), the coefficient of determination (R^2) measures the proportion of variance in the exogenous latent construct of the model that can be attributed to the endogenous latent construct. Rather, the percentage of variance in the dependent variables that can be explained by the predictor variables is represented by the coefficient of determination (R-squared value) (Hair et al., 2006). Similarly, research undertaken by Hair et al. (2014), R^2 is the sum of all latent factors that have an impact on the latent factor inside the original model but are not included in it. The assessment of variance is given greater weight in PLS-SEM path modelling (Hair et al., 2012) since it is employed in variance-based structural equation modelling to evaluate the quality of a structural model (Götz et al., 2009).

Several scholars have recommended several criteria for calculating the coefficient of variation. Meanwhile, a research conducted by Hair et al. (2011) and Henseler et al. (2009) said that R^2 values between 0.25 and 0.50 suggest a moderate level of variation, but values between 0.50 and 0.75 indicate a considerable variation. Some researchers (Cohen, 1988; Chin, 1998) also propose three intervals for evaluating structural model quality; for example, an R^2 value of 0.26 and more is considered high quality, an R^2 value of 0.13 to 0.26 is considered moderate quality, and an R^2 value of 0.02 to 0.13 is regarded as low quality. The R^2 value of the study's endogenous latent constructs is shown in Table 4.15.

Table 4. 14
Variance Explained in the Endogenous Latent Constructs

Latent Constructs	**Variance Explained (R^2)**
Effectiveness	0.402
Efficiency	0.377
Responsiveness	0.338

One of the most popular and valuable metrics for analysing structural models is endogenous latent variables' coefficient of determination (R^2) (Hair et al., 2013). The R^2 value of effectiveness is 0.402, while the R^2 value of efficiency is 0.377. Moreover, the R^2 value of responsiveness is 0.338 as stated in Table 4.14. It is concluded that the model has significant predictive validity. As a result, the R^2 value is relatively high, exceeding the cut-offs for effectiveness and responsiveness suggested by Chin (1998) and Cohen (1988).

4.7.4 Effect Size (f^2)

Effect size (f^2), which explains the variation in R^2 values between the inclusion and exclusion of the mediating variable from the model (Hair et al., 2013). In order to determine the impact of the mediating variable's absence, it is excluded (Hair et al., 2014). Nonetheless, it is important to note that the computed value of f^2 should not be disregarded, as any number indicates potential (Chin et al., 2003). The formula provided by Sawilowsky (2009) can be used to calculate the effect size.

Based on this methodology, an impact can be classified as small or little if the calculated value is less than or equal to 0.02, as moderate if the calculated value is up to 0.15, and as significant or considerable if the estimated value is equal to or greater than 0.35. The exogenous construct's effect size was discovered by applying the same methodology as other research (Cohen, 1988; Chin et al., 2003). The results show that the effect is statistically significant.

Table 4. 15
Effect size (f^2) of Employee Performance and Interaction Terms

Exogenous constructs	Endogenous construct	Effect Size
CR	Et	**0.349**
	Ec	**0.337**
	Rs	**0.332**

Table 4.16 indicates the impact sizes (f^2) of crisis response on effectiveness, efficiency, and responsiveness are 0.349, 0.337, and 0.332, respectively. Thus, the external construct has a moderate impact on effectiveness, efficiency and responsiveness, according to Cohen's (1988) theory.

4.7.5 Predictive Relevance (Q^2)

An additional analysis of the structural model that demonstrates the predictive relevance of the model is called predictive model relevance. The predictive usefulness of the model was evaluated in this study using the Stone-Geisser criteria. An inner model should demonstrate the expectation of endogenous latent construct indicators, based on this measure (Henseler *et al.,* 2009). Therefore, employing blindfolding procedures, Stone-Geisser's Q^2 test is employed to assess the predictive relevance (Q^2) (Hair *et al.,* 2012). Thus, the Q^2 for the endogenous latent construct was examined in this work using the Stone-Geisser test (Hair *et al.,* 2012). Table 4.17 displays cross-validated redundancy for Effectiveness, Efficiency, and Responsiveness.

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Table 4.17
Construct Cross-Validated Redundancy

	SSO	SSE	Q^2= (1-SSE/SSO)
Effectiveness	4504.000	3303.173	0.267
Efficiency	4504.000	3465.514	0.231
Responsiveness	4504.000	3456.885	0.232

The Q^2 values for Effectiveness, Efficiency, and Responsiveness in Table 4.17's results are all greater than zero, at 0.267, 0.231 and 0.232, respectively, suggesting that the model has a strong predictive significance. Because the expected value is greater than zero, it is consistent with the given Q^2 values. According to Heseler et al. (2015), if the computed value of Q^2 is less than zero, the model is predicatively unsuccessful. However, the estimated value suggests that the model is predicatively useful.

4.8 The Goodness of Fit of the Whole Model

PLS Structural Equation Modelling uses a single "goodness of fit" metric. Tenenhaus and Vinzi et al. (2010) define the global fit measure (GoF) of PLS as the geometric mean of the average commonality and average R square for endogenous constructs. Because of this, the variance recovered by the inner and outer models is explained by the GoF measure. Wetzels et al. (2009) provide the following formula as recommendations:

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GoF baseline values (small =0.1, medium =0.25, and big =0.36) from Wetzels et al. (2009) were used for the comparison. The results show that the model is a true PLS model because of its excellent goodness of fit. The study's conclusions are summed up in Table 4.14, along with the theories that were looked at to achieve its objectives.

$GoF = \sqrt{(\overline{R}^2 \times \overline{AVE})}$

In this study, the GoF value was calculated using the following formula:

$GoF = \sqrt{(0.372 \times 0.631)} = \sqrt{0.234} = 0.484$

The baseline GoF values (small =0.1, medium =0.25, and big =0.36) were compared by Wetzels et al. (2009). A potential PLS model is consistent with the results, which displayed a high goodness of fit.

4.9 The Results of the Hypotheses

The analysis in this paper has been carried out meticulously, considering both direct and moderating link paths that aid in the conclusion. Table 4.18 summarizes all of the testable predictions produced throughout this inquiry. The independent variable (crisis response) and the endogenous variable (effectiveness, efficiency, and responsiveness). Findings indicate that all hypotheses were supported which are in line with prior studies (Edwards et al., 2024; Gribas et al., 2018, Kyrychok, 2017; Wilk-Jakubowski et al., 2022; Kalkman, 2021; Guo et al., 2020).

Table 4. 16
Summary of Results

Hypothesis	Description	Decision
H1	There is a statistically significant relationship between crisis response and effectiveness in the Umm Al-Quwain police department in the UAE.	**Supported**
H2	There is a statistically significant relationship between crisis response and efficiency in the Umm Al-Quwain police department in the UAE.	**Supported**
H3	There is a statistically significant relationship between crisis response and responsiveness in the Umm Al-Quwain police department in the UAE.	**Supported**
H4	AI moderates the relationship between crisis response and effectiveness in the Umm Al-Quwain police department in the UAE.	**Supported**
H5	AI moderates the relationship between crisis response and efficiency in the Umm Al-Quwain police department in the UAE.	**Supported**
H6	AI moderates the relationship between crisis response and responsiveness in the Umm Al-Quwain police department in the UAE.	**Supported**

4.10 Chapter Summary

This section provides an overview of the investigation's results. An overview of the chapter was given at the outset. The procedures of the response bias test and the non-response bias test were examined. The demographics of respondents in public organisations varied greatly in terms of gender, age, income, experience, and educational attainment. Tests were conducted on all mean and standard deviation variables To verify the descriptive statistics. Cronbach's alpha of the variables has also been established in order to evaluate the validity and reliability of the instrument. Factor loadings, composite reliability, and AVE values were examined to increase data dependability. Nonetheless, the research's AVE and composite dependability levels show how valid and reliable the data is. Convergent validity and construct validity have been checked to guarantee the accuracy of the results.

Lastly, the direct effects of the components were investigated using PLS-SEM. Path coefficients were found using algorithms and pathways' significance was estimated using bootstrapping. Next, the moderating variable was shown. In a similar vein, algorithms were found and their R2 value was assessed to see if any changes had occurred. The moderating effects on the connections between independent and dependent variables were found after determining their significance. The same method was applied to assess the interaction items' importance. After the route coefficients were calculated, bootstrapping was used. As a result, this study gained attention since it showed a number of intriguing relationships between the variables. The following chapter also includes discussions, conclusions, ramifications, and suggestions. In addition, there are debates, findings, implications, and recommendations in the

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upcoming chapter. This will help to understand the results and their theoretical and managerial consequences.

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CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter's primary objective is to summarize and stress the main elements of the whole argument. As a result, this chapter provides the fundamental reasons and interpretations for the preceding chapter's findings. Following a summary of the findings, this chapter delves into a discussion and analysis of the results. Furthermore, this chapter discusses the theoretical and practical contributions. Finally, the chapter concludes with a valuable assessment of the study's limitations and recommended topics for additional research. This chapter aims to outline the study findings and provide a detailed picture of the Umm Al-Quwain police department in the UAE. The last chapter discusses the study's limitations and recommendations for further research. This final section discusses the study's findings.

5.2 Discussion and Interpretations of Findings

In light of pertinent theories and previous study findings, this part examined the direct hypothesis's results. Thirteen direct hypotheses are obtained from the study topic. The discussion section's subheadings are arranged according to the research hypothesis.

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This study component also examined the direct hypothesis's results in light of relevant theories and previous research findings. Six additional indirect hypotheses that are related to earlier findings and were obtained from research questions based on mediation analysis have been presented. The discussion section's subheadings are arranged according to the research hypothesis.

5.2.1 The Effect of crisis response on effectiveness

Confirming that crisis response has a significant relationship with effectiveness is the first hypothesis of the study. Based on PLS direct effects, the findings showed a substantial correlation between crisis response and effectiveness ($\beta = 0.477$; $t = 13.467$; $p<0.01$). The results of a number of studies (Park, 2017; Luoma-aho et al., 2017; Edwards et al., 2024; Gribas et al., 2018) show a strong relationship between crisis response and effectiveness. As a result, the research's conclusions support the idea that, in developing nations like the United Arab Emirates, realistic crisis response enhances effectiveness.

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This issue explores the fundamental strategies that managers in various organizations, particularly police organizations, can employ to effectively respond to a crisis. It emphasizes the significance of stakeholders comprehending these tactics and highlights the potential benefits for all parties involved. Although extensive crisis planning can be conducted beforehand, this discussion focuses on the essential tactics. The interest of many individuals lies in the impact of crisis response practices on the efficacy of organizations' performance (Park, 2017).

Coombs (2007) states that a crisis response is vital for the ongoing administrative success and organizational performance of an organisation. Three key characteristics speed, accuracy, and consistency must be present to ensure an effective response. The number, intensity, and complexity of crises, natural catastrophes, acts of terrorism, and cyber assaults, among other significant occurrences, are on the rise. It is essential to provide up-to-date location-specific data regarding the severity, magnitude, and intricacy of the crisis, to safeguard lives and property. Sharing situational information between the operations center and the field can enhance the effectiveness of collaborative efforts between government and community organizations (Soyata et al., 2019).

Technology has facilitated the occurrence of data breaches, security outages, and technological failures. An organization's crisis and response might be evident in various forms (Fediuk et al., 2010). The speed and efficacy of the organization's response to a crisis will directly impact the company's reputation, either positively or negatively. This will be determined by the ability to properly manage the dissemination of information and maintain communication with important stakeholders throughout the incident. The effectiveness of an organization's stress management influences whether its response reduces or worsens the damage caused by a crisis (Gerken et al., 2016).

5.2.2 The Effect of crisis response on efficiency

The initial hypothesis of the study aimed to validate the assertion that there is a substantial correlation between crisis response and efficiency. The findings of the PLS direct effects analysis showed that there is a significant link between crisis response

and efficiency (β =0.479; t=12.853; p<0.01). Multiple studies (chok, 2017; Wilk-Jakubowski et al., 2022; Kyrychok, 2017; Hardt, 2014) have found a strong association between crisis response and efficiency. Therefore, the results of this study support the idea that crisis response have a positive impact on efficiency in emerging countries such as the UAE.

It is necessary to formulate a comprehensive and tailored plan for crisis management in order to establish a link between crisis response and the effectiveness of carrying out this response (Kune et al., 2016). Effective managerial competency is necessary for the purpose of strategizing, evaluating, and scrutinizing potential significant hazards and determining appropriate responses to them. Various potential risks exist, such as natural disasters, major workplace accidents, and the potential loss of critical assets. Leaders can enhance their ability to address crises by recognizing their primary worries, formulating appropriate actions to address those problems, and prioritizing them based on their significance (Wilk-Jakubowski et al., 2022).

Preventing or minimizing a crisis involves making changes to an organization's activities in reaction to a crisis, with the involvement of competent administrative personnel from the organization (Alketbi et al., 2022). Once an emergency arises, it becomes futile to take measures; hence, it is necessary to prepare for a rapid and efficient response. The success of an organization is frequently influenced by the speed and efficiency with which its leaders respond to a crisis (Fares et al., 2014).

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5.2.3 The Effect Of Crisis Response On Responsiveness

The third hypothesis of the study was to determine that "crisis response has a significant relationship with responsiveness". The results of PLS direct effects revealed that crisis response (β=0.490; t=13.355; p<0.05) significantly correlates with responsiveness. Research results (Kalkman, 2021; Guo et al., 2020; Winkler, 2017) show that crisis response and responsiveness have a noteworthy relationship. Therefore, the results of this study help to generalize the idea that crisis response favors responsiveness in developing nations like the UAE.

As the complexity and interdependence of administrative work increase, it is almost certain that it will encounter crises that require responsive reaction plans. It is nearly certain that it will have to respond to such crises. Numerous organizations are cognizant of this approach, wherein they want to enhance their responsiveness score. Corporate activities and business units frequently employ well-practiced tactics to mitigate risks linked to handling routine scenarios (Fediuk et al., 2010). Businesses implement several strategies in disaster recovery and security planning, including crisis response plans, safety plans for food manufacturing plants, and liquidity plans for banking institutions (Kim, S., & Sung, 2014).

However, even after these initial actions have been implemented, the organization's ability to effectively address the crisis will be crucial, particularly if the crisis is of a distinct nature and develops more rapidly than the organisation can handle, especially when it involves an inherently significant level of risk. The role of performance responsiveness becomes more significant and important in situations characterized by considerable uncertainty (Kalkman, 2021).

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The responsiveness of organizational performance is a critical factor in determining the ability to save lives and minimize recovery expenses during emergencies (Guo et al., 2020). Once a prompt and efficient response has mitigated any ongoing dangers or emergencies, the period of recuperation can begin. The recovery phase is contingent upon the particular consequences of the crisis situation subsequent to its response. When implementing crisis response processes, business executives should consider this stage in order to ensure that the procedures have organizational responsiveness (Jancar-Webster, 2016).

5.2.4 Artificial Intelligence Moderates The Relationship Between Crisis Response And Effectiveness

This research examined the moderating influence of artificial intelligence in the relationship between crisis response and effectiveness to reach the research's final objective. The analysis reveals a significant correlation, as demonstrated in Table 4.13 (β=0.138, t=3.905, $p<0.01$). Consequently, the results support hypothesis 4.

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AI can help leaders make informed decisions by providing in-depth analytics, personalized recommendations, and what-if scenarios. AI systems can evaluate different policy options and estimate their potential consequences, allowing decision-makers to choose the best approach to manage the crisis. Artificial intelligence (AI) plays a significant role in contemporary civilizations, posing new technical difficulties. Without the help of AI technology, crisis management today may not perform effectively and successfully in the area of crisis response. It is now common practice to use the latest advancements in AI to enhance an organization's crisis response skills as part of the search for an optimal operating model.

AI systems can rapidly process large amounts of data during a crisis, identify patterns and insights, and provide decision-makers with real-time recommendations. This can lead to a more informed, agile crisis response. AI can help coordinate crisis response efforts across an organization, automating workflows, resource allocation, and communication to improve operational effectiveness. AI predictive models can forecast the potential impacts of a crisis, allowing organizations to preemptively prepare and respond more effectively. AI chatbots and virtual assistants can provide frontline employees and customers with immediate crisis information and support, enhancing the overall organizational response.

By leveraging these AI capabilities, organizations can enhance their overall crisis preparedness and response, which in turn can positively impact their performance effectiveness during and after a crisis event. However, the extent of AI's moderating influence would depend on factors like the organization's existing technological maturity, crisis management strategies, and the specific nature of the crisis. Ultimately, the integration of AI into crisis response planning and execution can be a key differentiator in an organization's ability to weather disruptive events and maintain operational resilience.

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5.2.5 Artificial Intelligence Moderates the Relationship between Crisis Response and Efficiency

This research examined the moderating influence of artificial intelligence in the relationship between crisis response and efficiency to reach the current study final objective. The analysis reveals a significant correlation, as demonstrated in Table 3.13 (β=0.105, t=2.929, $p<0.01$). Consequently, the results provide support for hypothesis H5.

Artificial Intelligence (AI) may enhance crisis management and improve organizational performance efficiency. Usually, AI-powered systems may help in the early detection of crises, real-time monitoring of situations, optimizing resource deployment, and even predicting future crisis scenarios based on historical data. Moreover, from the result displayed in the table above, it is obvious that AI is positively significantly related to efficiency, and crisis response is significantly related to efficiency.

In this context, AI may play a supporting role in crisis response, but its ability to significantly moderate the relationship between crisis response and organizational performance efficiency would be limited. Organizations would still need to rely heavily on human expertise, decision-making, and crisis management strategies to maintain operational efficiency during disruptive events. The integration of AI should be carefully considered and balanced within the organization's broader crisis preparedness and response frameworks, rather than being seen as a panacea for improving efficiency. Organizational resilience and performance would depend on a multifaceted approach that leverages both human and technological capabilities.

5.2.6 Artificial Intelligence Moderates the Relationship between Crisis Response and Responsiveness

This research examined the moderating influence of artificial intelligence in the relationship between crisis response and effectiveness to reach the research's final objective. The analysis reveals a significant correlation, as demonstrated in Table 4.13 (β=0.080, t=2.292, $p<0.05$). Consequently, the results support for hypothesis 6.

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Artificial intelligence can play a moderating role in the relationship between crisis response and organizational performance responsiveness. AI systems can rapidly analyze large amounts of data from various sources to provide real-time insights and recommendations during a crisis. This can help organizations make more informed and timely decisions, leading to more effective crisis response and improved performance. AI can automate repetitive tasks and processes, freeing up human resources to focus on critical aspects of crisis management. This can lead to faster response times and more efficient utilization of organizational resources.

AI-powered risk management and performance measurement systems can help organizations identify and mitigate risks, and align their strategic objectives with crisis response measures, leading to improved organizational performance during disruptions. Organizational design and restructuring guided by AI analytics can help avoid common pitfalls and traps that undermine performance during crises. AI can model complex organizational dynamics and recommend adaptive changes to improve crisis responsiveness.

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5.3 Implications of the Study

There are various significant theoretical and practical ramifications for the study's conclusions. The ensuing sections address the theoretical as well as practical aspects.

5.3.1 Theoretical Implications

The study considered one of the pioneering studies on reaction to crises. This research has utilized and expanded upon a framework that encompasses the existing body of literature on organizational performance, specifically focusing on effectiveness,

efficiency, and responsiveness. A further contribution that the study made to SCCT was the identification of the moderating function that artificial intelligence plays in the relationship between crisis responses and organizational performance (effectiveness, efficiency, and responsiveness). By including Crisis Response and organizational performance (effectiveness, efficiency, and responsiveness) into the framework, the study has theoretically enlarged the SCCT framework. This is accomplished by incorporating these three factors.

The use of artificial intelligence as a moderating variable has been specifically incorporated into the research. The findings of the study make it abundantly clear that the interaction between artificial intelligence and crisis response plays a significant moderating role between crises and organizational performance (effectiveness, efficiency, and responsiveness). This accomplished by enriching the existing literature, which resulted in different outcomes. As a result, the extension in the SCCT has provided a fresh viewpoint that has contributed to the conceptualization and comprehension of the crisis that is occurring within the organization.

Effective crisis response often leads to better performance outcomes because organizations can maintain critical operations, manage stakeholder relationships, and adapt to changing circumstances. Organizations that plan and implement comprehensive crisis management strategies tend to recover faster and perform better. During a crisis, organizations often face resource constraints such as reduced budgets, workforce limitations, or supply chain disruptions. Crisis management strategies that emphasize resource optimization, such as reallocating tasks or adopting new technologies, can improve operational efficiency. However, crises can also decrease

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efficiency due to the time and effort required to address immediate challenges. Effective crisis responses mitigate these losses by reducing the time and cost associated with disruption. Organizations that are more responsive can mitigate the impact of the crisis and seize emerging opportunities. A fast and flexible response can significantly enhance an organization's reputation, customer satisfaction, and competitive advantage. Responsiveness is improved by decentralizing decision-making, empowering frontline employees, and fostering a culture of agility.

In summary, crisis responses that are implemented effectively with strong artificial intelligence can significantly boost organizational performance (effectiveness, efficiency, and responsiveness) and organizational outcomes. However, challenges in crisis management and negative perceptions of the response can have detrimental effects on employee attitudes and organizational performance.

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5.3.2 Practical Implications

The study's findings have significant implications for policymakers, especially for people working in public sector organizations. The study has expanded the scope of crisis responses by adding crisis response and organizational performance (effectiveness, efficiency, responsiveness) in the SCCT framework. This has provided fresh insights into SCCT in the UAE police. The incorporation of the extended model, along with the novel perspectives presented in studies, has provided policymakers with effective tools for both crisis management and organizational performance management.

The report affirms that organizations beyond government offices should also priorities their employees' development to enhance their organizational effectiveness. Historically, there has been a strong emphasis on the development of crisis response or crisis management abilities. This study has uncovered a crucial factor in crisis response strategy that has the ability to forecast organizational success.

Another significant practical contribution of the study pertains to the utilization of internal stakeholders, who may provide a more comprehensive explanation of the situation. Typically, the performance of an organization is assessed by measuring specific factors, and individuals who are external stakeholders are selected as respondents. This study demonstrates that internal stakeholders possess superior abilities in identifying the factors or determinants that can influence organizational success. The findings of this research provide valuable guidance for both researchers and practitioners. Therefore, it is advantageous to include internal stakeholders when designing any activity connected to organizational performance, particularly in the context of crisis management or response.

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5.4 Limitations of the Study and Recommendations for Future Studies

The present study has examined the correlation between crisis reactions and organizational performance, specifically in terms of effectiveness, efficiency, and responsiveness. This research has not analyzed any additional variables that could potentially impact the relationship between these variables. Hence, future research may focus on investigating the influence of organizational image on the relationship between crisis responses and potential outcomes of organizational performance. The study has not taken these aspects into account. The study has employed a quantitative

research approach, since it is appropriate for achieving the research purpose and gaining a comprehensive grasp of the topic being investigated. The study has not used the qualitative method of using interviews.

The current research has incorporated measurement tools to align with the requirements of the public sector. The research has confirmed the validity of the instruments, but it is crucial to revalidate them in order to refine the measurement specifically for the public sector in the UAE. The potential limitations of each concept hinder the process due to inaccuracies in attributing other variables. Perceptions can be influenced by cognitive biases due to their subjective character. The locus of control is indeterminate. Regardless of whether the crisis originates within or externally, it will have an impact on the performance of the organization. The reason of the crisis is unknown in the instance of the suffering. Therefore, the research does not provide a definitive judgement regarding the underlying cause of the incident. The study examined the subjective viewpoints of employees, which may diverge from objective facts and occurrences.

The study has focused on analyzing the operations of public sector organizations under specific circumstances. The study's findings have restricted applicability. The findings are not generalizable to other sectors or organizations facing distinct crises. Furthermore, the study specifically focuses on the respondents from the UAE, so limiting the reach. The outcomes can vary for every other sector of the economy. Public sector organizations in different countries may exhibit variations in values, leading to divergent outcomes. Therefore, the findings of this study are not generalizable to any other industry or company. Other organizations in different

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sectors or economies can benefit from the discoveries of this study, as the public sector organizations in Asian countries share many similarities with the public sector of the UAE.

5.5 Conclusion

The survey aimed to assess employees' attitudes regarding the performance of the police in the UAE. The study has specifically examined the organizational performance of the commission as seen by public sector employees. The staff in any organization possesses comprehensive knowledge and understanding of all the facts and information. Therefore, they are the most suitable participants to include in researching any area of an organization. The media highlights the direct impact of negative judgments on them. Hence, it is vital to scrutinize their perceptions pertaining to the organizations.

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The findings of the research reveal that there is a statistically significant relationship between crisis response and effectiveness, efficiency, and responsiveness in the Umm Al-Quwain police department in the UAE. Moreover, artificial intelligence moderates the relationship between crisis response, effectiveness, and responsiveness in the Umm Al-Quwain police department in the UAE. The results show that artificial intelligence has no moderating influence on the association between crisis response and effectiveness in the Umm Al-Quwain police department in the UAE.

Effective crisis responses have a significant positive effect on employee performance and overall organizational performance. A strong crisis response plan can increase organizational performance (effectiveness – efficiency - responsiveness). Proper crisis

preparedness, communication, and decision-making during a crisis can protect an organization's survival and reputation, enabling it to recover and maintain good performance. However, mismanaging a crisis or failing to respond effectively can have severe negative consequences for an organization's performance. In summary, the search results indicate that an organization's crisis response is a critical determinant of its performance. Effective crisis management strategies and preparedness can positively influence performance, while poor crisis response and management challenges can significantly undermine an organization's ability to operate effectively. The key is for organizations to develop robust crisis management plans and capabilities to mitigate the negative effects of unexpected events.

Researchers have acknowledged the significant advantages linked to strong organizational performance in a public organization. Nevertheless, the unresolved matters about the numerous disparities between the private and governmental sectors remain. There are distinct differences in the characteristics between the public and private sectors. Public sector organizations possess a larger number of stakeholders, are subject to state policies, experience complex organizational dynamics, and have a higher degree of bureaucracy (Fauzi et al., 2021). Public organizations must establish specific performance requirements to effectively manage the many government entities they interact with. This facilitates seamless collaboration. Hence, public organizations must devote significant effort to building and uphold their organizational performance in this particular domain.

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APPENDICES

Questionnaire

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5. The following statements indicate the effect of HRM practices and organisational excellence in UAE universities. Please tick to indicate your agreement on each statement.

DEMOGRAPHIC INFORMATION

Please tick (√) in the box relevant to you.

A. Gender

- □ Male
- □ Female

B. Age

- □ 18-24
- □ 25-39
- □ 40-49
- □ 51-60
- □ Over 50 years old

C. What is your education level?

- □ PhD
- □ Master
- □ Bachelor
- □ Diploma
- □ High school

E. How long has you been work?

- □ 1-5
- □ 6-10 years
- □ 11-15 years
- □ More than 15 years

F. How much is your income?

- □ Less than 8000 AED
- □ 8001-16000 AED
- □ 16001-25000 AED
- □ More than 25000 AED

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Crisis Response

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

No.	**Crisis Response**	1	2	3	4	5
1	The Umm Al-Quwain Police do not strive to remove any connections an organization had with a crisis by Attacking the accuser.					
2	The Umm Al-Quwain Police do not strive to remove any connections an organization had with a crisis by Simply denial.					
3	The Umm Al-Quwain Police attempts to reduce attributions of organizational control and reduce the negative effects of the crisis by Justification.					
4	The Umm Al-Quwain Police seek to build a positive connection between an organization and its public by Ingratiation.					
5	The Umm Al-Quwain Police seeks to build a positive connection between an organization and its public by Victim age.					
6	The Umm Al-Quwain Police attempt to improve the organization's reputation by Recapping.					
7	The Umm Al-Quwain Police attempts to improve the organization's reputation providing benefits.					
8	Attempts to reduce attributions of organizational control and reduce the negative effects of the crisis by excusing.					

Effectiveness

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

No	Effectiveness	1	2	3	4	5
1	Our department has a work climate that supports obtaining department objectives.					
2	Our department maintains a high level of employee health and safety.					
3	Our department has successfully developed the procedure to improve the quality of service offered.					
4	Our department utilizes the latest technology to increase					

	effectiveness.					
5	The support materials used by our department helped me to learn.					
6	Strategic planning effectiveness increased effectiveness in achieving the organization's objectives.					
7	The department provides an information on the organization's vision and mission.					
8	Employees are kept informed on matters that affect their work and the working conditions					

Efficiency

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

No	**Efficiency**	1	2	3	4	5
1	Set environmental performance and efficiency targets and measure progress toward them, for our products/business areas.					
2	Encourage suggestions to improve resource, energy, and material efficiency.					
3	Provide training in environmental management for our managers and staff.					
4	Write a policy, supported by senior management that links environmental performance with our department performance.					
5	Assign a person(s) to be responsible for environmental and eco-efficiency matters.					
6	The department provides information to employees on how to improve their environmental performance.					
7	The department determines the main environmental impacts.					
8	The department tracks current and proposed environmental regulations and legislation that may impact security.					

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Responsiveness

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

No	**Responsiveness**	1	2	3	4	5
1	The needs of different people groups drive new service development activities in the firm.					
2	When the department finds out that the people are unhappy with the quality of products/services, the department will take corrective actions immediately.					
3	The frequency department makes use of a formal program where the department meets with people to determine their service needs.					
4	The frequency company is involved in a formal internal process in which the company examines service and quality levels.					
5	The department frequently uses a formal program asking people for feedback on practices or policies.					
6	The department's ability to provide speedy service.					
7	The department Delivers service on time.					
8	The management of my department encourages employees to voice their problems.					

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Artificial Intelligence

Please (√) in the appropriate option: Strongly Disagree =1, Disagree =2, Neutral=3, Agree =4, and Strongly Agree =5.

No	Artificial Intelligence	**1**	**2**	**3**	**4**	**5**
1	Employees are knowledgeable about artificial intelligence operations.					
2	Our organization is skilled at analyzing market information using artificial intelligence.					
3	Our organization employs a manager to manage artificial intelligence.					
4	Our organization's members are linked by an artificial intelligence network.					
5	Employees can use AI applications or products to improve their work efficiency.					
6	Employees are always alert to the abuse of AI					

	technology.					
7	When using AI applications or products, employees are alert to privacy and information security issues.					
8	Employees can choose the most appropriate AI application or product from a variety for a particular task.					

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