#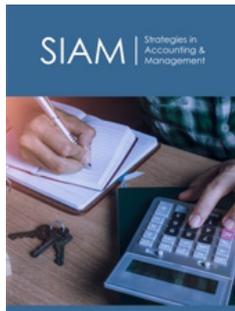 The Impact of Artificial Intelligence on the Relationship Between Crisis Management and Business Continuity in UAE Public Institutions

Moosa Ahmed Jafar Almandoos Alblooshi*

School of Management, University of North Malaysia, Malaysia

*Corresponding author: Moosa Ahmed Jafar Almandoos Alblooshi, School of Management, University of North Malaysia, Malaysia

Abstract

This study explores how Artificial Intelligence (AI) influences the dynamic relationship between crisis management and business continuity within public institutions in the United Arab Emirates. Drawing on empirical research, it highlights how AI-driven predictive analytics and decision-support systems strengthen crisis preparedness and operational resilience. The findings emphasize the essential role of integrating AI technologies to maintain uninterrupted services during disruptions, thus fostering sustainable governance and institutional agility.

Introduction

In an era marked by rapid and unpredictable changes, the capacity of public institutions to effectively manage crises while ensuring continuous operations is crucial. The United Arab Emirates, with its forward-looking governance and commitment to innovation, stands as an exemplary case for examining the role of Artificial Intelligence (AI) in this domain. During the COVID-19 pandemic, His Highness Sheikh Mohamed bin Zayed Al Nahyan publicly declared that "medicine and food are a red line, and our readiness is sustainable to face all challenges." This powerful statement reassured the people of the UAE and played a critical role in sustaining business continuity across various sectors. It reflects the leadership's unwavering commitment to resilience, which is further enhanced by the strategic adoption of AI technologies in crisis management frameworks. This paper, based on my doctoral research, investigates the extent to which AI can act as a catalyst in linking crisis management with business continuity, aiming to provide actionable insights for public sector entities striving for sustainable operational resilience [1-6].

Literature Review

Crisis management involves systematic planning, preparedness, and response to minimize the impact of unexpected adverse events. Public institutions face unique challenges, given their responsibility to maintain essential services under stress. Business continuity planning complements crisis management by ensuring that critical functions persist during and after disruptive incidents. The advent of AI technologies has introduced new possibilities for enhancing crisis response and business continuity. Predictive analytics enable early risk detection, while AI-powered automation supports rapid decision-making and resource allocation. Although international literature recognizes AI's transformative potential, there remains a lack of empirical research focused on its application within the UAE's public sector, which this study addresses.

Methodology

A quantitative approach was adopted, surveying 186 employees across seven public sector institutions in the UAE. A structured questionnaire captured data on AI usage, crisis management effectiveness, and business continuity performance. The analysis employed descriptive statistics and regression models to explore the relationships among these variables.

Results

The study reveals a significant positive relationship between the use of AI and the effectiveness of crisis management practices. AI adoption correlates with enhanced ability to predict and respond to crises, leading to improved business continuity outcomes. Leadership digital maturity was identified as a moderating factor that amplifies these benefits.

Discussion

Findings demonstrate that AI plays a critical role in empowering public institutions to better anticipate and manage crises while maintaining essential services. This aligns with the UAE's strategic vision to integrate AI into governance and emergency preparedness. The leadership's proactive stance, as highlighted by Sheikh Mohamed bin Zayed's statement during the pandemic, underpins this technological transformation and institutional resilience.

Conclusion

Artificial Intelligence serves as a vital enabler bridging crisis management and business continuity in UAE public institutions. It is recommended to further invest in AI-driven early warning systems and leadership development programs to sustain and enhance operational resilience. Future studies should explore sector-specific AI applications and long-term impacts on public governance.

References

1. Brynjolfsson E, McAfee A (2017) The business of artificial intelligence. Harvard Business Review.

2. Elliott D, Swartz E, Herbane B (2011) Business continuity management: A crisis management approach. Routledge, UK.

3. Herbane B (2010) Small business research: Time for a crisis-based view. International Small Business Journal 28(1): 43-64.

4. Kapucu N, Garayev V (2013) Disaster resilience and adaptive governance in the public sector. Public Administration Review 73(6): 839-848.

5. Mitroff II (2005) Why some companies emerge stronger and better from a crisis. AMACOM.

6. (2019) International organization for standardization. Business continuity management systems, ISO.