Chapter 3
AI Adoption in Tax Fraud Detection in Palestine: Insights From Arab Countries on Public Policy and Sustainable Governance

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ABSTRACT

The current study focused on addressing how governmental agencies are using Big Data and Artificial Intelligence (AI) applications to detect tax fraud with a focus on Palestine. This is done using a review of the experiences from different Arab neighboring countries like UAE, KSA, Jordan, Qatar and others. This is based on the fact that many governments around the world are adapting AI in their services, and using its many solutions to provide better public services. It is a reality that Arab countries have also started to implement policies related to AI use to help manage digital transformation and risks associated with frauds in financial statements and tax reports, which is also true for Palestinian public sector. The study concluded that AI applications are of great importance to help detect and avoid tax fraud, and that public sector services, especially tax services need to apply AI solutions to their many risks including: legal risks, poor financial reporting risks, information privacy risks, and risks of poor quality of tax reports

DOI: 10.4018/979-8-3373-1534-8.ch003

INTRODUCTION

Artificial Intelligence (AI) is becoming a reality in today's business world, where its impact on economy and other aspects of life became apparent in the recent years (Ariyibi, 2024). The changes expected in entrepreneurship and supply chains are also impacting global trade, which is leading to higher competition and increased productivity; while increasing global growth and affecting job market. AI relies on many algorithms that require data about human behavior and preferences (N. S. Ahmed & Harb, 2025). It also became an aiding tool in accounting, finance, auditing, and fraud detection in general. It also became of use in tax accounting as a shift from traditional tools used to calculate and report tax have changed (Ariyibi, 2024)

AI is crossing all barriers of traditional thinking in all areas, where its use has reshaped the risks associated with financial policies and financial data manipulation. AI is considered one of the main interests of many governmental and nongovernmental initiatives that encourage adapting AI tools in many areas. For example, G7, G20, UNISCO, OECD, and WIPO are some of the international organizations that focus on the unlimited abilities of AI in different areas (Murad, 2019). Based on such initiatives, many countries engaged in activities that would allow for maximizing the benefits of the 4th industrial revolution which is based on the use of technology. This also applies to Arab countries which focused on how AI affect financial markets and investments, and how tax reports could be further analyzed to detect any fraud or misuse of financial resources.

Problem Statement

The rapid advancement of Artificial Intelligence (AI) is transforming the foundations of economic systems, business operations, and decision-making processes across industries. While the integration of AI promises increased productivity, efficiency, and innovation, it simultaneously presents significant challenges—particularly in areas related to finance, auditing, and taxation (Alsadhan, 2023). As AI becomes more deeply embedded in these domains, traditional methods of tax accounting, financial reporting, and fraud detection are being replaced or augmented by data-driven algorithms that interpret human behavior and predict financial outcomes. This shift raises crucial questions about accuracy, transparency, and the potential manipulation of financial data. The problem is further complicated by the uneven implementation of AI tools across nations and industries, leading to inconsistencies in regulatory oversight and ethical standards. As countries strive to maximize the benefits of the Fourth Industrial Revolution, there is a pressing need to assess how AI affects the accuracy, reliability, and integrity of tax reporting and fraud detection mechanisms. Without a clear framework for addressing these changes, there is a risk