

UNIVERSITI TEKNOLOGI MARA

**FOSTERING GREEN INNOVATION:
THE ROLE OF MANAGERIAL
ENVIRONMENTAL CONCERN AND
BUSINESS OPPORTUNITIES IN
FIRM PERFORMANCE WITHIN
THE JORDANIAN AGRI-FOOD
INDUSTRY**

**NOUR OTHMAN ABDEL QADER
QATANANI**

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ABSTRACT

In response to growing sustainability pressures, green innovation has become a strategic approach to advancing sustainable development. However, limited research has examined how its dimensions interact with internal and external drivers to influence firm performance, particularly in low-technology, resource-constrained sectors such as agri-food industries in developing economies. This study addresses this gap by investigating the effects of green product innovation (GPI), green process innovation (GPRI), and green organizational innovation (GOI) on firm performance. It also explores the mediating role of business opportunities (BO) and the moderating role of managerial environmental concern (MEC). An integrative conceptual framework was developed based on Ecological Modernization Theory, the Resource-Based View (RBV), the Natural Resource-Based View (NRBV), Stakeholder Theory, Institutional Theory, and the Porter Hypothesis. The model was tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0, with data collected from 250 micro, small, and medium-sized enterprises (MSMEs) in Jordan's agri-food sector. Results show that collaboration, environmental regulation, and firm resources significantly influence all three types of green innovation, while market demand affects green product and process innovation but not organizational innovation. GPI and GPRI positively impact both environmental and financial performance, whereas GOI has no significant direct effect. BO mediates the relationship between GPRI and GOI and financial performance only. MEC directly enhances financial performance, has no significant effect on environmental performance, and negatively moderates the relationship between GPI and both environmental and financial outcomes. The study contributes theoretically and offers practical implications for sustainability-driven innovation in resource-limited contexts.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The first section of this chapter presents the research background, followed by a detailed discussion of key environmental issues in Jordan and the policy context surrounding water resources and sustainable development. The problems that guided the research questions and objectives formulation are also presented, followed by the scope of the study. This is followed by a discussion of the significance of the study in theoretical and practical scenarios. The chapter further gives the procedural definitions that will apply to this research. Subsequently, the structure of the thesis is presented, giving a brief overview of all the chapters.

1.2 Background

Global environmental, political, and economic pressures are increasingly interconnected, shaping market dynamics and strategic responses across industries. Economic instability, compounded by geopolitical tensions such as the Russia–Ukraine war, has disrupted global supply chains, increased commodity prices, and diverted attention from key sustainability priorities, including agri-food systems (Cueto et al., 2022; FAO, 2017; Bluszcz & Valente, 2022).

At the same time, the global population is expected to reach nearly 9 billion by 2050 (OECD, 2012). Rising income levels and consumption-driven lifestyles, which rely heavily on fossil fuels, are projected to increase global temperatures by 3–6 °C by the end of the century (Bocken et al., 2014). These trends place significant pressure on environmental systems and compel organizations to adopt sustainability-oriented strategies, particularly in industrial sectors that significantly contribute to environmental degradation (Comin et al., 2019; Yong et al., 2019; Yusliza et al., 2020).

In the Middle East, the aftermath of the Arab Spring and the Syrian conflict has further destabilized economies, including Jordan. The country faces multiple domestic challenges, such as hosting large numbers of refugees, strained public services, high unemployment, inflation, and rising living costs (Mugableh, 2021; World Bank, 2023;