

UNIVERSITI TEKNOLOGI MARA

**INFLUENCING FACTORS IN THE
ADOPTION OF MALAYSIAN
SUSTAINABLE PALM OIL (MSPO)
2.0 AMONG INDEPENDENT
SMALLHOLDERS**

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ABSTRACT

The Malaysian Sustainable Palm Oil (MSPO) 2.0 certification scheme represents a crucial advancement in promoting sustainable practices within Malaysia's palm oil industry. This study explores the factors and challenges influencing the adoption of MSPO 2.0 certification by independent oil palm smallholders in Malaysia. Independent smallholders play a pivotal role in Malaysia's palm oil sector, yet they face numerous barriers to certification, including financial constraints, limited technical knowledge, inadequate access to institutional support, and market uncertainties. This study employs the Theory of Planned Behaviour (TPB) framework to analyse the determinants of smallholder adoption readiness, incorporating factors such as knowledge and awareness, perceived benefits, education levels, and institutional support. A quantitative method approach was utilized, involving survey-based data collection from 400 certified independent smallholders in MSPO 1.0 across different 11 states in Malaysia. Descriptive analysis, multiple linear regression, and cost-benefit analysis were conducted to identify key determinants influencing MSPO 2.0 adoption. The findings reveal that knowledge and awareness, financial incentives, and perceived economic benefits significantly affect smallholders' readiness for certification. However, challenges such as high compliance costs, lack of training programs, and regulatory complexities hinder widespread adoption. Furthermore, the study highlights the need for enhanced government intervention, financial support mechanisms, and targeted training programs to bridge the knowledge gap and improve accessibility for smallholders. The research contributes to the ongoing discourse on sustainable palm oil by providing valuable insights into the socio-economic and policy-driven factors affecting certification uptake. The findings have practical implications for policymakers, industry stakeholders, and sustainability advocates in designing more effective strategies to enhance smallholder participation in MSPO 2.0. By addressing the identified challenges and leveraging supportive policies, Malaysia can strengthen its position as a global leader in sustainable palm oil production while ensuring the socio-economic well-being of independent smallholders.

Keywords: *MSPO 1.0, MSPO 2.0, Independent Smallholders, Sustainability, Palm Oil*

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TABLE OF CONTENTS

| | Page |
|---|------------|
| CONFIRMATION BY PANEL OF EXAMINERS | i |
| AUTHOR’S DECLARATION | ii |
| ABSTRACT | iii |
| ACKNOWLEDGEMENT | iv |
| TABLE OF CONTENTS | v |
| LIST OF TABLES | ix |
| LIST OF FIGURES | x |
| LIST OF ABBREVIATIONS | xi |
| | |
| CHAPTER 1 INTRODUCTION | 1 |
| 1.1 Research Background | 1 |
| 1.1.1 Global Significance and Sustainability Challenges of Palm Oil | 1 |
| 1.1.2 Malaysia’s Efforts Toward Sustainable Palm Oil | 2 |
| 1.1.3 The Role of Stakeholders in MSPO Certifications. | 3 |
| 1.1.4 The Challenges and Outlook of Palm Oil | 5 |
| 1.2 Problem Statement | 6 |
| 1.3 Research Questions | 7 |
| 1.4 Research Objectives | 7 |
| 1.5 Significance of Study | 8 |
| 1.6 Scope and Limitation of the Study | 9 |
| | |
| CHAPTER 2 LITERATURE REVIEW | 11 |
| 2.1 Oil Palm | 11 |
| 2.2 Knowledge of Oil Palm | 11 |
| 2.2.1 Global Views and Perspectives Toward Oil Palm | 12 |
| 2.2.2 Malaysian Views and Perspectives Toward Oil Palm | 12 |
| 2.3 Malaysia’s Involvement in Sustainable Palm Oil | 13 |
| 2.4 Malaysian Sustainable Palm Oil (MSPO) | 14 |
| 2.4.1 MSPO 1.0 (MS 2530:2013) | 16 |
| 2.4.2 MSPO 2.0 (MS 2530:2022) | 17 |

CHAPTER 1

INTRODUCTION

1.1 Research Background

1.1.1 Global Significance and Sustainability Challenges of Palm Oil

Palm oil is a cornerstone of global agriculture and a critical economic commodity for Malaysia (Rahman et al., 2023). Its history traces back to West Africa, where it was initially cultivated before expanding globally during the colonial era (McCollum et al., 2018). Malaysia, which began large-scale cultivation in the early 20th century, has become one of the world's leading producers and exporters of palm oil, contributing approximately 26% of the global supply (FAS, 2024). This industry significantly supports Malaysia's economy, accounting for 3.7% of its Gross Domestic Product (GDP) and employing millions, including over 650,000 independent smallholders. The versatile nature of palm oil, used in food products, cosmetics, and biofuels, has cemented its role as an indispensable commodity in international markets (Absalome et al., 2020).

The global prominence of palm oil has brought significant economic benefits but also heightened scrutiny due to its environmental and social consequences (Teng et al., 2020). Palm oil production is frequently linked to deforestation, which threatens biodiversity by destroying critical habitats for endangered species such as orangutans, tigers, and rhinoceroses (Wyatt et al., 2016; Poor et al., 2019; Epling et al., 2020; Sneddon et al.; 2021, Strang et al., 2021; Transparency et al., 2022). Moreover, the clearing of peatlands and forests releases substantial greenhouse gas emissions, contributing to climate change (Cooper et al., 2020; McCalmont et al, 2021). These environmental concerns have tarnished the industry's image globally, leading to calls for more sustainable practices.

Social issues further complicate the sustainability narrative. Labor exploitation, including child labor and poor working conditions, remains a persistent issue in the industry (Pye et al., 2019). Additionally, the expansion of oil palm plantations often displaced indigenous communities, disrupting their livelihoods and cultural heritage (Toumbourou et al., 2022). These practices conflict with international human rights