

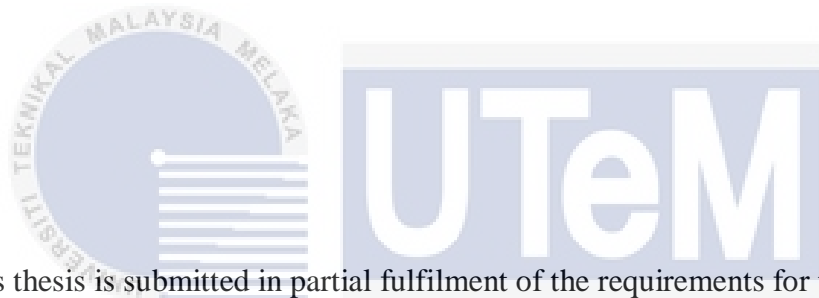
ANALYSING THE BARRIER TO ADOPT ECO-INNOVATION PRACTICE  
AMONG MALAYSIA HALAL HUB.



Faculty of Technology Management and Technopreneurship  
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

ANALYSING THE BARRIER TO ADOPT ECO-INNOVATION PRACTICE  
AMONG MALAYSIA HALAL HUB.

SANUSI BIN GEPARI



This thesis is submitted in partial fulfilment of the requirements for the award of  
Bachelor of Technology Management (Technology Innovation) with Honours

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Faculty of Technology Management and Technopreneurship  
University Teknikal Malaysia Melaka

JUNE 2022

## APPROVAL

'I/ We hereby declare that I/ we have read this dissertation/report and in my opinion, this dissertation/report is sufficient in terms of scope and quality as a partial fulfilment the requirements for the award of Bachelor of Technology Management (Technology Innovation) with Honours and will submitted to the Universiti Teknikal Malaysia Melaka.'



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## DECLARATION

I declare that my thesis entitled “ Analysing The Barrier To Adopt Eco-Innovation Practice Among Malaysia Halal Hub.” has been considered as my own research and does not has been submitted, in whole or in part, in any previous application for a degree. Unless approved, the submitted work is entirely my own. I declare that this research project is an introduction to my original research work. Regardless of the helps from the others, I will make each effort to make it clear, while at the same time I must fully respect the documentation and appreciate the joint work and discussion.

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## DEDICATION

This research paper is wholeheartedly dedicated to my dearest parents Misrumi Binti Masripin and Gepari Bin Aswadi, who have extremely been willing to support me mentally and physically and have been my source of strength and inspiration for me to accomplish my report successfully. Thank you for always be by my side. Next, to all my family members and friends, thank you for helping me, encourage me and also support me to complete the research. Lack of support and helps from them, I might not be able to accomplish my thesis on time. Lastly, my sincere appreciation to my supervisor and panels for guiding, helping as well as giving me knowledge to complete this thesis throughout the project.



## ACKNOWLEDGEMENT

Firstly, I would like to express my highest gratitude to Allah SWT, for His guidance, blessing and giving me the strength to perform my duties, because I was able to complete this research called “Analysing The Barrier To Adopt Eco-Innovation Practice Among Malaysia Halal Hub.” to meet the requirements of Universiti Teknikal Malaysia Melaka (UTeM) and the faculty itself, Alhamdulillah.

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In my pursuit of this project, nothing is more important than my family. I want to thank my parents for their love and guidance in my pursuit for this project. They are the ultimate role models. I am very grateful for this chance to convey my sincere gratitude to everyone that made this research possible and those who contributed indirectly to this research. Your kindness is great significance to me.

## ABSTRACT

This study was made to identify the barriers to adopt eco-innovation practice among Malaysia halal hub. It would also be possible to display the results of this research whether the management and employees would insight to adopt technical eco-innovation in their organisation. In this research, there will be four independent variables including government support, top management, lack of financial and least of technological innovation toward eco-innovation practice as dependent variable. The secondary data was used by the researcher in the literature review; the proposed research framework was the results after analysing information from literature review contributed from many researchers. Eco-innovation practice was adopted for the study in order as a theoretical framework that researcher use. Primary data was collected from 100 questionnaire surveys using probability sampling technique which is cluster sampling method, through the questionnaire. The findings of this research perform to indicate barriers to adopt eco-innovation as well as government over Malaysia in adopting eco-innovation practice.

**Keywords** – *Barriers to adopt Eco-innovation, Halal hub, SMEs*

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## Abstrak

Kajian ini dibuat untuk mengenal pasti halangan untuk mengamalkan amalan eko-inovasi di kalangan hab halal Malaysia. Hasil penyelidikan ini juga boleh dipaparkan sama ada pihak pengurusan dan pekerja akan memahami untuk menerima pakai inovasi eko teknikal dalam organisasi mereka. Dalam penyelidikan ini, terdapat empat pembolehubah tidak bersandar termasuk sokongan kerajaan, pengurusan atasan, kekurangan kewangan dan kurang inovasi teknologi terhadap amalan eko-inovasi sebagai pembolehubah bersandar. Data sekunder digunakan oleh penyelidik dalam kajian literatur; rangka kerja kajian yang dicadangkan adalah hasil setelah menganalisis maklumat daripada kajian literatur yang disumbangkan oleh ramai penyelidik. Amalan eko-inovasi telah diterima pakai untuk kajian ini sebagai rangka kerja teori yang digunakan oleh penyelidik. Data primer dikumpul daripada 100 tinjauan soal selidik menggunakan teknik persampelan kebarangkalian iaitu kaedah persampelan kelompok, melalui soal selidik. Penemuan penyelidikan ini menunjukkan halangan untuk pelaksanaan eko-inovasi serta kerajaan di Malaysia dalam menerima pakai amalan eko-inovasi.

**Kata Kunci** – Halangan adopsi pelaksanaan Eko-inovasi, Halal hub, PKS



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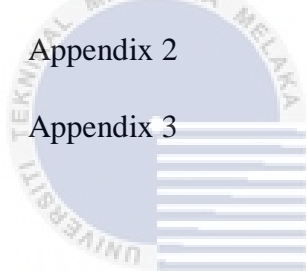
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### LIST OF ABBREVIATION

ABBREVIATION	MEANING
SMEs	Small Medium Enterprise
GDP	Gross Domestic Product
NGTP	National Green Technology Policy
GT	Green Technology
SDGs	Sustainable Development Goals
CEOs	Chief Executive Officers
R&D	Research And Development
OECD	Organisation for Economic Co-operation and Growth
GP	Green Product
COVID-19	Coronavirus Disease 2019
GSCM	Green Supply Chain Management
ISO	International Organization For Standardization
EMS	Environmental Management System
IV	Independent Variable
DV	Dependent Variable
GS	Government Support
TM	Top Management
LF	Lack of Financial
LT	Least Technological Innovation

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# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

The main purpose of this research chapter is to introduce to the reader about the study about the barrier in order to adopt eco-innovation practices among Malaysia halal hub. This chapter will discuss the background of eco-innovation, where there will be the explanation about definition and investigating the barriers to its adoption among Malaysia Halal hub. Besides, to confer the problem statement, the research question, research objective, the study's scope, and the significance of the study will be addressed from this chapter.

### 1.1 Background of Study

Innovation in the food sector is a topic of growing interest among scholars to investigate what drives companies to invest and what are the consequences in terms of enhancement of performance and competitiveness (Juan Guillermo Solarte-Montufar, 2021). In addition to its economic strength, it is growing awareness that innovation plays a key role in protecting the environment and providing better quality of life for society in general (Karmanov, M.V. et al. 2020). Food companies follow specific patterns, and innovation depends on multiple factors acting and interacting to build new methods to deal with social or economic processes. It can be technological and more related to new products and processes, but can also be nontechnological, when related to new organizational or marketing methods (Annet C.Hoek, 2021). Considering that worldwide population is growing fast and it is expected to have around 9 or 10 billion people for 2050 (UNFPA, 2015), the importance of production and consumption of food to support inhabitants must be highlighted (FAO, 2015). At the same time, food sector is one of the most important to pressure the environment (FAO, 2015) and moving towards a more sustainable development (SD) depends on drastic changes

in food production and consumption patterns. In that sense, vigorous changes in the ways food is produced, processed, transported and consumed are necessary (Del Río-González, 2005; FAO, 2015).

Although it is vulnerability to climate incidents, land sectors are responsible for 30% of greenhouse gas (GHG) emissions, and crop and livestock production emissions represent half of the methane and two-thirds of the nitrous oxide emitted into the atmosphere (FAO, 2014). Given its high environmental impact and level of emissions, eco-innovation is highly important for the food sector (Isabel-María García-Sánchez, 2020). Eco-innovation is an innovation that contributes for a reduction of environmental impact, and it is not limited to products and services. It also includes new marketing and organizational methods, and social and institutional structures, contributing for businesses' positive impact towards sustainable development and competitiveness (Herman R. J. Vollebergh and Edwin van der Werf, 2020).

Innovation and eco-innovation's definition in the food sector will not significantly change from the broad concept, but factors for adopting and developing it will depend on specific characteristics of the sector. The adoption of innovation in the food industry have been studied by (J Tóth, G Migliore, JM Balogh, G Rizzo, 2020). This paper expands these previous studies and postulates that eco-innovation should be studied with a specific approach. It is assumed that eco-innovation differentiates in both the externalities and factors that boost the adoption and development of eco-innovation (G Cecere, N Corrocher, 2020). Eco-innovations hold specific features, such as the importance of creating links and positive trade-offs between the attribute of environmental protection and other critical factors of competitive products and services, such as style, design, price and performance (CarrilloHermosilla et al., 2010). Therefore, applying and assimilating innovation and sustainability in business management are crucial to achieve sustainability main objectives (social, economic and environmental) (M Shahzad, Y Qu, AU Zafar, 2021).

Although the importance of innovation and sustainability for manufacturing is evident, in the food sector those concepts are being considered separately. Eco-innovation in the food sector is conceptualized as “the development or implementation of (new) products, process or services that creates environmental benefits. Eco-innovation can be achieved with concerns with basic ingredients (organic, free range), packaging (i.e. recyclable), manufacturing process (energy saving, water recycling), logistics or distribution (new channels or direct consumer sales etc.); certifications (traceability or origin, eco-labels, fair and solidarity trade, ISO

14001); commercial aspects (low carbon footprint, etc.)” (Ecotrophelia, 2014; Horbach et al., 2012; OECD, 2009).

## **1.2 Halal hub in Malaysia**

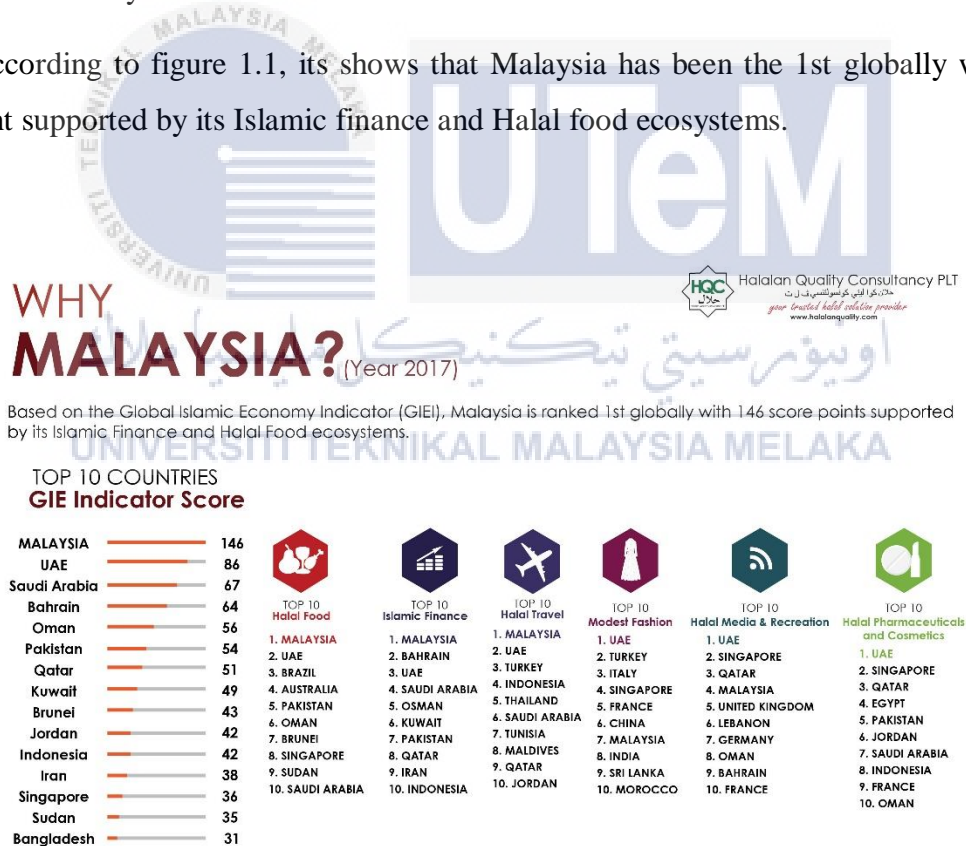
Halal is a saintly word amongst Muslims (Yunes Ramadan Al-Teinaz , 2020). It is an indication of the mandatory needs to ascertain their path to religious obligations ( Yunes Ramadan Al-Teinaz, 2020). For non-Muslims, halal has become a symbol of unquestioned conformance in trade dealings with Muslims. Despite its rather wide spectrum in Islamic contexts, the immediate knowledge and understanding of halal is mostly associated with the food and beverage industry (X Jia, Z Chaozhi, 2021).

The aftershocks of Covid-19 will likely continue for at least two years. Regardless of income level or social status, everyone is trapped by a cloud of uncertainty. Not with standing the dismay circumstance, there is a glimpse of light at the end of this dark tunnel. Over the past decade the concept of Halal has gained intense interest within the global business community. Halal – broadly defined as that which is permitted or allowed is a foundational tenet in Islam, has always guided the actions and choices of Muslims. The concept of Halal has been increasingly embraced by non-Muslims driven by heightened health and ethical consciousness, social responsibility and an alignment to the values underlying Halal. The already sizeable market for Halal products –1.9 billion Muslims in the world approximating to 24 per cent of the global population – further increased by non-Muslim Halal practitioners. Equally significant is the possibilities and breadth of Halal products and services available to the commercial sector. This ranges from food and beverages, pharmaceuticals, personal care and cosmetics to financial services. The Halal Industry Development Corporation (HDC) projects the global market of Halal industry to reach RM10 trillion by 2024. Malaysia, through the untiring efforts of HDC, has emerged on the forefront of global Halal fraternity. A principal component in promoting Halal industry to the world is our country’s Halal certification, widely held as the gold standard across the Islamic world.

Malaysia’s halal industry is estimated at \$30 billion and it is anticipated to increase by 25% over the next five years. (Adha, Hamid, Shahwahid, Othman, & Saidpudin, 2017) . While the global halal industry is valued at about \$2.3 trillion and is expected to continue to grow (J.A.J. Wilson 2014). Small and medium-sized enterprises (SMEs) are the main and dominant

force in this industry (Flanders Investment & Trade Malaysia (Flanders Investment & Trade Malaysia Office 2020). And according to (N. Zainuddin, A.M. Saifudin, N. Deraman and N. Mahidin In 2017 ) the Halal industry in Malaysia provided around 7.5 percent of the national GDP, totaling US \$314.5 billion. As a result, Malaysia’s government is expected to promote the Halal economy across the world, to become the world’s leading Halal hub by 2020, as outlined in the Third Industrial Master Plan (2006–2020). The food and beverage industry in Malaysia has a wide variety of different industries, including products such as chocolate and cocoa, fishery, processed vegetables, cereal products, confectionery, food ingredients herbs and spices, beverages, animal feeds, etc., For domestic use, Malaysia highly relies on the importation of numerous essentials such as rice, meat, and seafood goods also, many raw materials are imported for further manufacturing and export such as dairy milk and wheat (Azam & ABDULLAH, 2020) and according to this report Livestock & Livestock Products was the first industry which at valued 3.017 €.

According to figure 1.1, it shows that Malaysia has been the 1st globally with 146 score point supported by its Islamic finance and Halal food ecosystems.



Malaysia once again leads the GIEI for the fifth year in a row. This year 60 points ahead of UAE.

Figure 1.1 : Malaysia as 1st globally halal food ecosystem.

According to figure 1.2, from ( Halal Development Corporation Berhad 2020) show the export of Malaysia halal export to south korea. Its show that food and beverage stated the second highest percentage in south Korean import from Malaysia which is 40.9%.

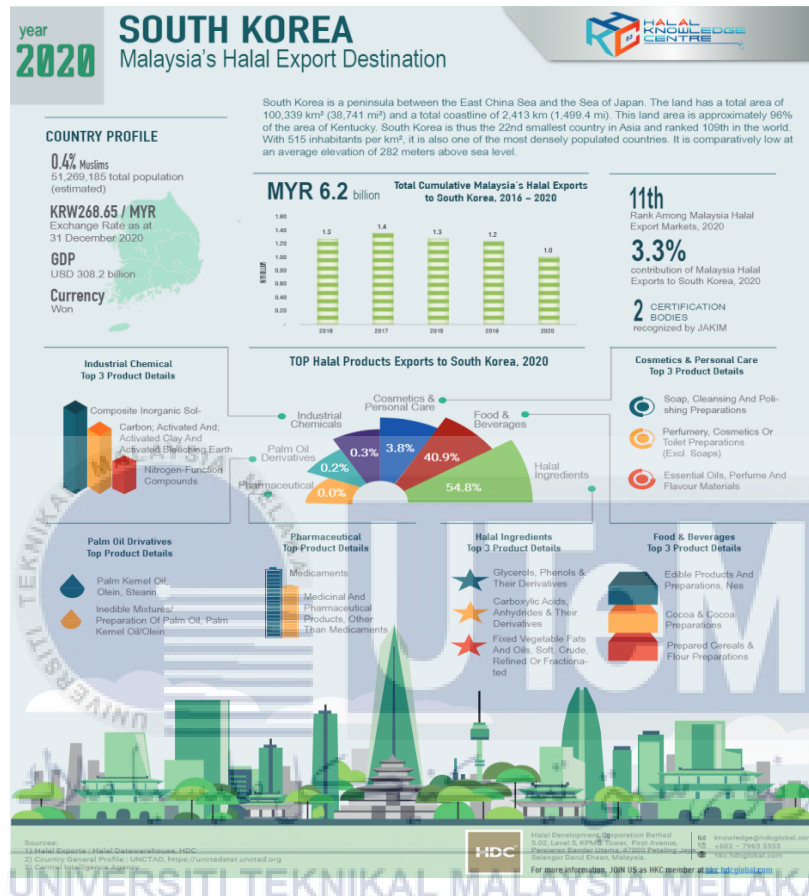


Figure 1.2 : Malaysia Halal export destination to south korea from 2016 until 2020.

### 1.3 Policy of Malaysia related to Eco-innovation

#### 1.3.1 Launch of National Policy for Green Technology

In 2009, the Malaysian Government launched the National Green Technology Policy to actively promote green technology as a driver of eco-innovation. To enact this policy, the government restructured the Malaysian Energy Center to GreenTech Malaysia (Malaysian Green Technology Corporation) to support the Ministry of Energy, Green Technology and Water (KeTTHA). The National Green Technology Policy has five objectives; 1) to minimize growth of energy consumption while enhancing economic development, 2) to facilitate the