



The Impact of Recycling Practices in Food and Beverage Industry Towards Young  
Entrepreneurs Business Performances



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The Impact of Recycling Practices in Food and Beverage Industry Towards Young  
Entrepreneurs Business Performances

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This thesis is submitted in partial fulfilment of the requirements for the award of Bachelor of  
Technopreneurship with Honours



22 JANUARY 2023

I hereby acknowledge that this project paper has been accepted as part of fulfilment for the degree of Bachelor of Technopreneurship (Hons)



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## DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled “The Impact of Recycling Practices in Food and Beverage Industry Towards Young Entrepreneurs Business Performances” is original done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.

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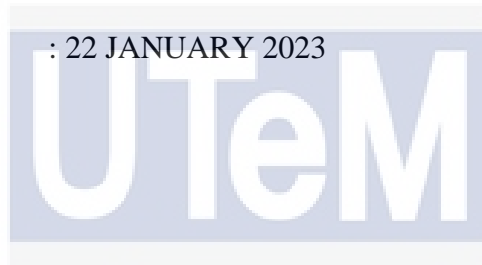
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## DEDICATION

I would like to appreciate the dedication of my beloved family members who educated me and motive me to learn until degree level. And also, I express a deep sense of gratitude to my lecturer whom also my supervisor for my final year project, Dr Nor Azah Binti Abdul Aziz and my fellow friends. They have provided me fully support and advice throughout this research. Without their blessing and encouragement, this research is impossible to complete within short period of time.



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## ABSTRACT

Malaysia generates a lot of food waste, which might eventually cause major issues. It is recommended that relevant institutions or authorities concentrate more on developing food waste reduction and recycling programmes since food waste is both biodegradable and recyclable. The food and beverage industry faces a significant challenge in reducing food waste. In spite of its importance to the global food industry, recycling practices have received little attention. This paper finds some of factors of recycling practices that impact young entrepreneur's business core value. The point of this exploration is because young entrepreneurs have less knowledge on recycling practices. Hence, it is fascinating to focus the study on the impact of recycling practices in food and beverage industry towards young entrepreneur's business performances. The recycling practices are composting, anaerobic digestion, animal feeding and food packaging. The study adopts a quantitative approach whereby a questionnaire survey was used to gather data. The questionnaires were distributed to sample selected using data by the Department of Statistics, Malaysia. The examination was completed using a Pearson connection to assess the relationship between free components and variables. The relapse inquiry was used to evaluate theories. Consequently, this examination paper could be beneficial for business professionals and an academicians would be substituted as a future reference.

Keywords: Composting, Anaerobic digestion, Animal feeding, Food packaging, Young entrepreneurs, Business performances

## ABSTRAK

Malaysia menjana banyak sisa makanan, yang akhirnya boleh menyebabkan isu besar. Adalah disyorkan agar institusi atau pihak berkuasa yang berkaitan menumpukan lebih pada pembangunan program pengurangan dan kitar semula sisa makanan kerana sisa makanan boleh terbiodegradasi dan boleh dikitar semula. Industri makanan dan minuman menghadapi cabaran besar dalam mengurangkan sisa makanan. Di sebalik kepentingannya kepada industri makanan global, amalan kitar semula kurang mendapat perhatian. Kertas kerja ini menemui beberapa faktor amalan kitar semula yang memberi kesan kepada nilai teras perniagaan usahawan muda. Tujuan penerokaan ini adalah kerana usahawan muda kurang pengetahuan tentang amalan kitar semula. Oleh itu, adalah menarik untuk memfokuskan kajian mengenai kesan amalan kitar semula dalam industri makanan dan minuman terhadap prestasi perniagaan usahawan muda. Amalan kitar semula ialah pengkomposan, penghadaman anaerobik, pemakanan haiwan dan pembungkusan makanan. Kajian ini menggunakan pendekatan kuantitatif di mana tinjauan soal selidik digunakan untuk mengumpul data. Soal selidik telah diedarkan kepada sampel yang dipilih menggunakan data oleh Jabatan Perangkaan Malaysia. Peperiksaan telah diselesaikan menggunakan sambungan Pearson untuk menilai hubungan antara komponen bebas dan pembolehubah. Siasatan berulang digunakan untuk menilai teori. Oleh itu, kertas peperiksaan ini boleh memberi manfaat kepada profesional perniagaan dan ahli akademik akan digantikan sebagai rujukan masa depan.

*Kata kunci: Pengkomposan, Pencernaan anaerobik, Makanan haiwan, Pembungkusan makanan, Usahawan muda, Prestasi perniagaan*



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Performances



## LIST OF SYMBOLS

$\bar{x}$	Sample mean
$N$	Number of Item
$\sigma$	Standard Deviation (S.D.)
$c$	Length of Class Interval
$X^2$	Squares of The Deviations of Scores from the Assumed Mean
$f$	Frequency of Class Interval
$c^2$	Square of Correction
$N$	Total Number of Score
$v$	Average Variance
$X_i$	The $i$ th Independent Variable



## LIST OF ABBREVIATIONS

F&B Industry

Food and Beverages Industry

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This chapter will discuss about the background of the research regarding the impact of recycling practices in food and beverage industry towards young entrepreneur's business performances. The background of study, problem statement, research questions, research objectives, scope and limitation of the study, significant of study and summary would be discussed in this chapter.

### 1.2 Background of Study

Recently, the problem of proper management of trash disposal has attracted a great deal of attention across almost all of Malaysia's states. The amount of materials that are being thrown away is being condemned by opinion leaders as being environmentally and ethically irresponsible, and lawmakers are struggling to find solutions that are sustainable. As a result, pressure is mounting on the manufacturers and packagers of consumer goods to reduce the amount of refuse that is produced. In the midst of these shifting conditions, some laws that make waste management a national problem were recently passed in Malaysia, and many other countries have similar laws on their agendas. (Innocent A. Jereme, 2015)

According to Innocent A. Jereme he stated that recycling, on the other hand, refers to the composting and regeneration of materials for their original or additional purposes. As a result, recycling should be viewed as a means of reducing the environmental impact of both raw material production and waste disposal. In most industrialised nations, recycling has evolved to signify the widespread collection and reuse of numerous objects such as newspapers and

beverage bottles. They are gathered and divided into common sorts so that the raw materials from these goods can be reused to make new products.

Moreover, the young entrepreneurs value the recycling practices in their business and eager to have it as business core value. These people have less knowledge of recycling practices and wish to improve their business performances. Hence, it is fascinating to focus the study on The Impact of Recycling Practices in Food and Beverage Industry Towards Young Entrepreneurs Business Performances. Furthermore, any small actions performed by the young entrepreneur to implement recycling practices can bring positive impact to the overall food & beverage industry.

The food and beverage industry faces a significant challenge in reducing food waste. In spite of its importance to the global food industry, recycling practices have received little attention. Therefore, this research would help to find out the ways to reduce the food waste by adopting recycle practices. Thus, the aim of this research is to investigate the impact of recycling practices towards young entrepreneur's performance and also aim to identify type of recycling practices implemented for food and beverage industry to reduce food waste.

### **1.3 Problem Statement**

Malaysia has a high rate of food waste generation, which could become a serious problem in the future. Given that food waste is both biodegradable and recyclable, it is suggested that relevant institutions or authorities focus more on implementing food waste reduction and recycling programmes. (Lim, W. J.,2016).

According to Ramdzan et al in 2018, food and beverages are regarded a basic necessity by Malaysians, accounting for more than half of all daily consumer purchases. According to the Department of Statistics' Household Expenditure Survey Report (2019), this amount is divided into two categories: the first is non-alcoholic food and beverages such as fresh vegetables, fish, and raw meat, and the second is cooked food in restaurants that is ready to eat by customers. Food wastes are the most common waste component in Malaysia, accounting for 32 percent of total garbage, followed by paper and plastics, which account for 21 percent and 14 percent of total waste, respectively. Due to the rise in food waste in Malaysia, the food and beverage industry must apply a number of measures in order for young entrepreneurs to improve their performance.

Furthermore, due to the living nature of humans, food waste is discarded on a regular basis through agricultural, industrial, and home operations. Food losses, i.e. food materials lost during the preparation, processing, and production phases of the food supply chain, unavoidable food waste, i.e. inedible parts of food materials lost during the consumption phase (pineapple peel, fruit core, etc), and avoidable food waste, i.e. edible food materials lost during the consumption phase (pineapple peel, fruit core, etc), and avoidable food waste, i.e. edible food materials lost during the consumption phase (surplus and wastage). (Thi and colleagues, 2015).

In addition, the landfill and incinerator are the most prevalent techniques for disposing of food waste. Landfilling is a common and widely accepted method for disposing of food waste since it is cost-effective and easy to implement. However, because many landfills in Malaysia have reached capacity, food waste disposal via landfill has grown more problematic. Moh and Manaf (Moh and Manaf, 2014). Incineration, on the other hand, is expensive and requires a lot of energy and technology. Because it pollutes the air, the incineration process is rarely used to treat food waste (Zhang et al., 2014). Both of these strategies are unsustainable in terms of food waste management because they have major environmental consequences. As a result, cost-effective and environmentally acceptable recycling processes and management systems are required.

In the future years, food waste creation is predicted to skyrocket, while landfill space is in short supply. In 2018, Malaysia had just 146 operational landfills, with only 18 of them being classed as sanitary landfills (SWCorp, 2019; Moh and Abd Manaf, 2017). The world's concern for a better environment has grown as a result of bad agriculture sector production management, which has resulted in negative changes to the ecosystem and a decline in human well-being. 2021) (Zain & Rahman). Because food waste has greater negative effects on the food and industry sector as well as the environment, we should introduce recycling measures in the food and beverage business to assist reduce food waste. As a result, the difficulties in this study include that many young entrepreneurs are still unaware of how to handle food waste in the food and beverage business, and that implementing recycling techniques would have an impact on their performance.

#### **1.4 Research Questions**

The researcher determined three research questions in this study:

- i. What are the recycling practices towards young entrepreneur's business performances?
- ii. How the recycling practices impact the young entrepreneur's business performances?
- iii. What are the most influencing recycling practices towards young entrepreneur's business performances?

#### **1.5 Research Objectives**

In this research, there are three research objectives to be figured out:

- i. To examine the recycling practices toward young entrepreneur's business performances.
- ii. To investigate how the recycling practices, impact the young entrepreneur's business performances.
- iii. To evaluate the most influencing recycling practices towards young entrepreneur's business performances.

#### **1.6 Scope and Limitation of the Study**

This research paper is focusing on the impact of recycling practices in food and beverage industry towards young entrepreneur's business performances. This study had conducted among 384 respondents from all states of Malaysia. In order to collect data, questionnaires are distributed to respondents.

Researchers chose the respondents at random, so the data is inaccurate because they were unreliable. The research may not have covered all states in Malaysia. Also, the researcher had a time limit for conducting the research. There were time constraints, as the study had to be completed in a short period of time 10 months.

## 1.7 Operational Definition

Factors	Definition
Composting	controlled conversion of degradable organic products and wastes into stable products with the aid of microorganisms ( Lasaridi et.al , 2018)
Anaerobic Digestion	natural biochemical process that converts organic materials into combustible biogas ( Uddin & Wright, 2022)
Animal Feeding	Utilizing food loss and waste in animal diets to be used as food for animals ( Dou, Toth & Westendorf, 2018)
Food Packaging	products containment, protection, preservation, convenience, to provide information about the product, brand communication, among others. ( Coles.R, 2003 )
Young Entrepreneurs	the capacity or willingness of young personnel to create a business venture, taking on financial risks to make a profit. (Liñán, 2004)
Business Performances	the operational ability to satisfy the desires of the company's major shareholders" (Smith& Reece, 1999, p. 153)

**Table 1.1: Operational definition**

## 1.8 Significant of Study

The findings of the study benefited young entrepreneur's business performances in food and beverages industry. They also understand the impact of recycling practices towards the young entrepreneur's business performances. In addition, can learn about what are the most influencing recycling practices towards young entrepreneurs through this research. Moreover, the study adds to existing knowledge that already exists about impact of recycling practices in food & beverage industries and how they can affect the business performance of young entrepreneurs in Malaysia through empirical literature sources.

## 1.9 Summary

In this chapter, the first section described about recycling practices in food and beverages industry and their impact on young entrepreneur's business performance. The statement of problem was dealt with the measurement of recycling practices and impact on young entrepreneur's business performance that has not been fully explored. There are four objectives in this research and fully described the significance of study, scope of study and limitation of study. The researcher conducts the study's literature review in the following chapter. The information is more comprehensive and understandable.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter will act as the basis for the development of the research. It will literature on the impact of recycling practices in food and beverage industry towards young entrepreneur's business performances to illustrating about young entrepreneurs, young entrepreneur's performance, theory of recycling practices, reason to adopt the recycling practices, benefits of recycling practices and independent variables included composting, effective packaging, animal feeding and anaerobic digestion. In addition, this chapter will explain the development of this hypothesis with each independent variable. The research will illustrate theoretical framework which will shows the relationship between the variables. The final section will summarize all of this chapter.

#### 2.1 Malaysia's Food and Beverage Industry

The food and beverage industry plays an important role and contributes significantly to Malaysia's economy. In 2018, the Malaysian food and beverage business was estimated to be worth approximately €22.12 billion, with annual growth of 7.6 percent (Flanders Investment & Trade, 2020). Malaysia's food and beverage (F&B) business is diversified, offering a wide variety of dishes for Asian palates, dietary needs, and western recipes. The F&B industry includes a variety of establishments, including full-service restaurants, street stalls/kiosks, fast-food cafés/bars, and self-service cafeterias. This industry is dominated by small and medium-sized businesses (Italian Trade Agency, 2017).

Malaysia's food and beverage market are not constrained by its domestic agricultural output. Malaysia's food processing industry is estimated to account for more than one-tenth of its manufacturing output (European Commission, 2018). According to the Malaysian Investment Development Authority (2019), processed food exports have contributed around RM21.76 billion to more than 200 nations.

Moreover, Quoquab et al. (2019) reported that the demand for fast food among Malaysians is increasing, whether for American franchised meals like KFC, Pizza Hut, and McD or for local fast-food franchises like Secret Recipe, Hot & Roll, and Manhattan Fish Market. Also increasing is the demand for organic, natural, and fresh foods (LNG, 2019). Hassan et al. (2015) and See & Shaheen (2012), for instance, reported that the demand for organic food consumption in Malaysia has increased greatly due to numerous factors, such as the food's affordability and the customers' acceptance and knowledge. The expansion of Malaysia's food and beverage (F&B) industry is mostly influenced by consumers' ever-changing preferences.

Last but not least, increasing meal delivery apps such as Grab Food, Food Panda, Deliverat, and Dahmakan contribute to the rising demand for food and increase consumer accessibility, hence contributing to the F&B industry's rapid expansion. It also caused an increase in the number of eateries and fast-food businesses throughout the nation. (Maizaitulaidawati Md Husin, 2021)

## 2.2 Recycling Practices Implementation

Composting, anaerobic digestion, and animal feeding are some of the more popular and environmentally friendly food waste disposal methods. These are some sustainable food waste management alternatives that could be implemented in Malaysia in the future instead of incineration or landfilling, both of which have negative environmental consequences (Thi et al., 2015).

The most preferred method of recycling food waste is conversion to animal feed or industrial products, followed by composting, and finally conversion to energy (through incineration or anaerobic digestion). Composted food waste from the food service industry appears to convert to high-quality fertiliser, according to evidence. Recycling is less expensive and less harmful to the environment than disposal. Both the volume of garbage created and the manner of disposal determine the cost of waste management. In theory, recycling food waste can lower waste management costs by reducing the volume of garbage sent to landfill. (Ellen Fogarty, 2021)

Recycling is beneficial for the environment because it minimises the quantity of garbage transported to landfills and the demand for fresh raw resources. Recycling is the third-best method for waste management, after reducing waste and reusing trash. This is due to the fact