

# **INTI INTERNATIONAL UNIVERSITY**

## **MASTER OF BUSINESS ADMINISTRATION**

### **An Exploratory Study on the Environmental Behavior of Agro-Business in Selangor**

**Author** : Owhonda Kinikachi  
**Student ID** : I12001098  
**Supervisor** : Dr. Mudiarasan Kuppusamy  
**Submission Date** : 15<sup>th</sup> April 2013  
**Ethics Number** : INBS401  
**Final Word Count** : 20,482

**Faculty of Business, Communications and Law**

## Acknowledgement

I am very happy and honored in completing this research as part of my MBA dissertation because exploring and writing dissertations of this magnitude is never an easy task. This research has taught me how to analyze a qualitative research project and damaged my ignorance on environmental behavior. Succinctly elucidating, this research has broadened my knowledge in all ramifications in this dynamic world.

With profound gratitude, I would like to sincerely thank my supervisor, Dr. Mudiarasan Vasu Kuppusamy, who has been very patient and has shown me much benevolence. As a matter of fact, the researcher was able to establish a cordial relationship with Dr. Mudiarasan, which drastically aided the communication and comprehension of the dissertation expectations. Also due to the established relationship, expertise and networking of Dr. Mudiarasan, the researcher was able to get the contacts of the sample companies at ease. In addition, I will like to specially thank all the respondents' in the five (5) companies and everyone in and outside the faculty who has directly or indirectly contributed towards this research. Your help is deeply appreciated.

I will be full of culpability if I don't appreciate the almighty God for the wisdom and understanding He gave to me throughout this research work. Furthermore, the moral support of my late dad, Dr Christopher Owhonda cannot be forgotten, and the financial support of mum, I really appreciate it.

By completing this dissertation, it is my wish that it would provide a reference to stakeholders, future researchers and students in reviewing and drawing conclusion from on this study. Lastly, I hope that this research will benefit more people in years to come.

Thank You.

## Abstract

Environment sustainability is one of the major problems of the new millennium. Continuous degradation of the environment is causing severe problems such as climate change, water supply shortage and loss of biodiversity. Saving the environment is thus an urgent necessity and requires a strategic understanding on environment behavior of all stakeholders of an economy, especially the business sectors as they are regarded as primary contributor to environmental problems. One of the key approaches in understanding environmental behavior is to understand waste management practices of business sector. Disposing waste is part and parcel in a business operation. However less attention is given to understand how businesses manage waste disposal by considering the impact to the environment.

This research explored the environmental behavior of agriculture based business in the state of Selangor, Malaysia. The agriculture sector was chosen because it represents one of the key players of Malaysia's economic growth, via production of agro-based products and its exports. Using the case study research approach, in depth interviews with five sample agriculture based businesses (with 5 interviewees in each firm) were undertaken to understand current waste management practices, the cost and benefits of environmental friendly waste management, the motivations to undertake environmental friendly waste management, the awareness and knowledge toward environmental friendly waste management, and the extent government support is perceived to drive environmental friendly waste management in this business sector.

Thematic analysis on the data collected from the 25 respondents of the five companies' revealed formation of several themes which are summarized as follows. Firstly, in the context of current waste management practice, majority of the respondents are not practicing environmental friendly based waste management as required by local and federal regulations. Second, in terms of the cost and benefit issue, the result showcase that the cost of undertaking environmental friendly waste management is higher than the expected benefits which links largely on return on investment issue. Thirdly, most respondents are not motivated to undertake environmental friendly based waste management. Fourth, the level of awareness and knowledge toward environmental

friendly waste management amongst the respondents are pervasive but not practiced. Lastly, majority of the respondents are in the view that at macro level, government provides adequate support to undertake environmental friendly waste management. However issues and restrictions emerge when it comes to operationalization of waste management – mostly from lower level governmental departments. This presumably hinders effective environmental friendly waste management.

The outcome of this research has theoretical and practical implications and has been discussed in Chapter 5. Further recommendations and suggestions are also given in Chapter 5.

**Keywords: Environmental Behavior, Waste Management, Green Business, AgricultureBusiness**

## Declaration

I hereby declare that this research thesis is of my own effort except for the information that has been used from various authors that have been cited accordingly and ethically.

April 2013

OwhondaKinikachi

INTI INTERNATIONAL UNIVERSITY .....	1
1.0 Introduction .....	9
1.1 Background .....	9
1.2 Defining Waste Management .....	9
1.3 Waste Generation in Malaysia and Characteristics .....	10
1.4 Problem Statement .....	11
1.5 Research Questions .....	12
1.6 Significance of the Study .....	13
1.7 Limitations of the Study .....	14
1.8 Scope of Study .....	14
1.9 Operational Definitions .....	15
2.0 Introduction .....	17
2.1 Environmental Behavior .....	17
2.2 Evolution of Waste Management .....	18
2.3 Waste Management in Developing Countries .....	19
2.4 Impact of Poor Waste Management .....	21
2.4.1 Impact to Environment .....	21
2.4.2 Economic Impacts .....	22
2.4.3 Impacts on Human Health .....	23
2.5 An overview of the Agriculture sector in Malaysia .....	23
2.6 Theoretical Model of Environmental Behavior .....	24
2.7 Agriculture Sector Waste Management Practices .....	26
2.8 Motivation of Waste Management .....	29
2.9 Government Support and Challenges in Waste Management .....	30
2.10 The Cost Benefit of Waste Management .....	32
2.11 Awareness and Knowledge on Environment .....	34
2.12 Research Framework .....	36
3.0 Introduction .....	38
3.1 Research Design .....	38
3.2 Sampling Strategy .....	39
3.3 Data Collection Procedure .....	40
3.3.1 Secondary Data Source .....	40

3.3.2	Research Interview .....	41
3.3.3	Semi-structured interviews .....	41
3.3.4	Design of Interview Questions .....	42
3.4	Validity and Reliability .....	43
3.5	Ethical Consideration .....	44
4.0	Introduction .....	46
4.1	Current Practices .....	48
4.1.1	Sub Theme 1: Adherence to MHLG or DOE.....	49
4.1.2	Sub Theme 2: Non-Adherence to MHLG or DOE .....	49
4.2	Cost Benefit of Waste Management .....	51
4.2.1	Sub Theme 1 (Beneficiaries of Waste Management) .....	52
4.2.2	Sub Theme 2 (Benefactors of Waste Management) .....	52
4.3.1	Sub Theme 1 (Aware and Knowledgeable on Environment).....	54
4.3.2	Sub Theme 2 (Unaware and not Knowledgeable).....	54
4.4	Motivation of Waste Management .....	57
4.4.1	Sub Theme 1 (Motivated to Engage in Waste Management).....	57
4.4.2	Sub Theme 2 (Unmotivated to Engage in Waste Management).....	58
4.5	Government Support.....	59
4.6	Summary of the findings .....	61
5.0	Introduction .....	64
5.1	Results Discussion .....	64
5.2	Theoretical Implications .....	66
5.3	Practical Implications .....	67
5.4	Recommendation .....	67
5.5	Future Research.....	68
5.6	Conclusion .....	69
5.7	Personal Reflection .....	70
6.0	REFERENCES .....	72

# Chapter 1

# INTRODUCTION

---



## **1.0 Introduction**

Succinctly, this chapter will be assessing waste management definition, its importance, problem statement, research questions and objectives, the significance of the study for academia, government & agriculture association. Thereafter, the scope, operational definitions and limitations of the study will be evaluated. Note that the term, agrobusiness, agriculture based business and agriculture sector are used interchangeably. They are referring to the same issue

## **1.1 Background**

In Urban areas throughout the world, environmental behavior in terms of waste management continues to be a key challenge, more especially in developing country regions that are growing rapidly (Foo, 1997). Presently, the statistics shows that the world's total population is about seven billion with almost 50% residing in urban areas (HMGN and MoPE, 2012). In 1997, approximately 0.49 billion tons of waste was spawned with growing level projection of 3.2-4.5% in nations that are developed and 2-3% in nations that are developing (Suocheng et al., 2001). Succinctly asserting, the rapid nature of urbanization and industrialization changed the features of generated waste. The significance therefore is waste management is required to be up to date to be in uniformity with the waste quality, quantity and composition.

## **1.2 Defining Waste Management**

There seems to be no general acceptable definition of Waste Management. According to Eva and Veikko (2004), waste management encompasses the supervision of collecting, transporting, recovering and disposing of waste, and after-care disposal sites. According to European Council (1991), the most suitable methodologies and technologies should be employed to recover and dispose waste, which could automatically guarantee a great level of environmental protection and public health. In

this context, 'environment' means the natural world entirety occupied by living organisms, particularly measured susceptible to pollution.

### **1.3 Waste Generation in Malaysia and Characteristics**

Malaysian population is believed to be over 30 million according to Latifah et al (2009). The population has been rising at a rate of 600,000 or 2.4% per anum since 1994. Undoubtedly, as the population is growing, the waste generation also rises (Dawda et al., 2012). In Malaysia, the average Municipal Solid Waste (MSW) generated in 2003 was 0.5-0.8 kg/person/day; it rose to 1.7 kg/person/day (Dawda et al; Kathirvale et al., 2003). It has been estimated that by 2020, the amount of MSW generation will rise to 31,000 tons (Dawda et al., 2012). Principally, the alterations that transpire in MSW are commonly triggered by demographic characteristics and facilities which are provided by the respective departments. More of that will be elaborated in chapter two of this study. Population growth and solid waste generated in Peninsular Malaysia relationship is highlighted in Table 1.

**Table 1: Waste generation in Peninsular Malaysia (tons/year)**

States	Population (2000)	Waste generated (2000)	Population (2001)	Waste generated (2001)	Population (2002)	Waste generated (2002)
Johor	2252,882	1915	2309,204	2002	2366,934	2093
Kedah	1557,259	1324	1596,190	1384	1636,095	1447
Kelantan	1216,769	1034	1247,188	1081	1278,368	1131
Melaka	605,361	515	620,495	538	636,007	562
N. Sembilan	890,597	757	912,862	791	935,683	827
Pahang	1126,000	957	1154,150	1001	1183,004	1046
Perak	1126,000	1527	1841,489	1597	1887,527	1669
Perlis	230,000	196	235,750	204	241,644	214
Penang	1279,470	1088	1311,457	1137	1344,243	1189
Selangor	3325,261	2826	3408,393	2955	3493,602	3090
Terengganu	1038,436	883	1064,397	923	1091,007	965
Kuala Lumpur	1400,000	2520	1495,000	2635	1470,875	2755

Source: Ministry of Housing and Local Government (2003)

#### 1.4 Problem Statement

Disposing waste is part of the everyday life of a human being, yet less attention to the process is paid to it. According to Nasrababi et al (2008), it is regarded an unconscious process, which insinuates that the behavior transpire without considerable thought. Environment sustainability is one of the major problems of the new millennium. Continuous degradation of the environment is causing severe problems such as climate change, water supply shortage and loss of biodiversity. Saving the environment is thus an urgent necessity and requires a strategic understanding on environment behavior of society (Monroe et al. 2009), industry (Marshall et al. 2010) and government (Barr, 2003). According to Mei Lim (2012), the management of waste is gradually becoming complex and important (Mei Lim, 2012). It is now without doubt, a primacy action for a clean and healthy state.

Waste Management and the different strategies/practices should be able to address the several issues (health, aesthetic, land use, environmental and economic concerns etc.) involved with inappropriate disposal of wastes (Henry et al, 2006; Wilson, 2007, Nemerow, 2009; Tacoli, 2012).

These problems are currently a major concern for countries, corporations, relevant authorities, municipalities all over the world (Nemerow, 2009), and also the international community at large (Wilson, 2007). According to Tacoli (2012), Yousif and Scott (2007), these waste created by growing cities in developing countries like Malaysia is at an alarming rate and local authorities and national governments are overwhelmed by its inability to contain the escalation.

Previous studies on Malaysia environmental behavior such as Mei Lim (2012), Latifah et al. (2009), Rafia (2011), Siti et al. (2012) etc. have all analyzed and drawn conclusions on waste management practice based on a general perspective, the perspective of the agriculture sector has not been specifically taken into consideration. As such, there are limited studies on Malaysia agriculture waste management practices. The environment behavior of the agriculture industry especially needs to be understood as they are one of the biggest polluters of the environment (Wallace, 2011; Rafia, 2011). Understanding the way the industry behaves toward the environment (environmental behavior) could assist in gauging the extent environmental policies established by the government are adhered by industries. This is especially important in the case of developing countries such as Malaysia.

### **1.5 Research Questions**

The overarching research question of this study is: to what extent is waste management practiced by agriculture businesses in the state of Selangor? The following are the sub questions which are related to the overarching question:

1. What is the current waste management practice and is it done based on environmental friendly manner?
2. To what extent the cost and benefit influences environmental friendly waste management?
3. What are the motivations to undertake environmental friendly waste management?

4. To what extent agriculture businesses in Selangor are aware and possess knowledge on environmental friendly waste management?
5. To what extent government support is perceived to drive environmental friendly waste management?

### 1.6 Significance of the Study

This research aims to study the environmental behavior of agriculture industry in Malaysia. Agriculture sector is one of the major economic contributors for Malaysia, with exports reaching 30% of gross national output year on year (Siti et al. 2012). The operations of this sector involve extensive waste management. Despite this, there is limited study on the agriculture waste management. Previous studies on Malaysia environmental behavior such as Mei Lim (2012), Latifah et al. (2009), Rafia (2011), Siti et al. (2012) etc. have all analyzed and drawn conclusions on environment and waste management Practices based on a general perspective, the perspective of the farming sector has not been taken into consideration. This study aims to address this gap in literatures by examining five (5) agro businesses in the agricultural industry.

This study has some feasible significance. For **academia**, waste management is already a trending study. Therefore, this research will help other researchers, scholars, professionals and future waste management researchers in understanding environmental behavior from the perspective of the agriculture industry. For the **Malaysian government**, the findings will be imperative in its waste management practice development, policy making purpose (policy makers), and its ongoing ETP (Economic Transformation Program). Wastes are categorized into three main groups and the responsibility of administration lies within the Ministry of Housing and Local Government (MHLG) for Municipal solid waste, Department of Environmental (DOE) for Scheduled/hazardous waste and Ministry of health (MOH) for clinical waste. Lastly, for **MAPA** known as Malayan Agricultural Producers Association and other agriculture associations in Malaysia, the findings of this study will help identify the environmental behavior, develop strategies which will ensure business growth, development, and create alternate prospects through the competitive advantage that waste management

offers. This is because the agricultural association in Malaysia has not realized the actual importance of managing waste and is still vulnerable. Lastly, these findings will benefit all stakeholders in Selangor and the agricultural sector.

### **1.7 Limitations of the Study**

Several limitations pertaining to the study needs are discussed in this section. First, the sample size was limited to 25 respondents from 5 agriculture based businesses in the state of Selangor. The respondents may not be enough to reflect the environmental behavior of Malaysian agriculture sector as a whole. Furthermore, the selection of respondents is based on availability and convenience, so the geographical location is not evenly distributed. Second, although this research is conducted based on qualitative, the set time and resources limit the total of analysis that can be employed. Moreover, the author's participation in the process may perhaps never set the study free from bias. Finally, this research was undertaken in two (2) months' timeline. As a result of the time constraint, it will be a gargantuan task to get all the information required for the research.

### **1.8 Scope of Study**

This research is limited to the state of Selangor. This is simply based on the availability and convenience of agro-businesses the author could reach. This research was done by interviewing 5 selected senior staffs of each of the 5 agro-businesses. These selected respondents were the managers or directors of the identified organizations. This is due to the fact that not all employees are acquainted with the terminology 'Waste Management', and not all employees can reveal the practices of the organization. So it will be awkward to interview people that are not acquainted with the topic of discussion. Managers and directors of organizations are well equipped with the knowledge and practices of the organization, in this context 'Waste Management'.

This study is carried out for a limited period of time, two (2) months to be specific. The proposed five agro-businesses are selected based on availability and convenience and are examined based on Face to Face Interview in which the assistance of one agriculture based company named AyamBerlianSdnBhd was sought to identify other companies of similar nature for interview purpose. AyamBerlianSdnBhd was also interviewed. The other companies were contacted (based from the contact details provided by AyamBerlianSdnBhd). The other 4 companies are Hyper Food Industries SdnBhd, Golden Arrow Traders, Hoe Farm and Dhashini Supply Co.

### 1.9 Operational Definitions

**Environmental Behavior:** This is described as the relationship between human behavior and the natural and made environment(Wilson, 2007).

**Waste Management:**This is described as the supervision of collecting, transporting, recovering and disposing of waste, and after-care disposal sites (Eva and Veikko, 2004).

**Agriculture Sector:** Also known as farming or husbandry sector, it's the second largest source of employment after services worldwide. It employs over one (1) billion and regarded a vital sector for female, especially in Africa and Asia. This sector is solely responsible for different types of food, fiber, and biofuel. This sector in general cultivates plants, animals, and other products used so that human life can be sustained(Seadon, 2006).

**Best Management Practices (BMPs):** Methodologies or procedures established to be the best effective and practical approaches in realizing an objective, which could be in terms of stopping, minimalizing or conserving even though creating the optimal consumption of the organization's resources(Seadon, 2006).