UNIVERSITI TEKNOLOGI MARA

THE ISSUES OF FOOD WASTE MANAGEMENT: A CASE OF THE FAST FOOD RETAILERS IN MALAYSIA

UMI KALSUM BINTI MUHAMAD

Computing Project submitted in partial fulfillment of the requirements for the degree of **Master of Science in Information Technology**

Faculty of Computer and Mathematical Sciences

AUTHOR'S DECLARATION

I declare that the work in this Computing Project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as reference work. This Computing Project has not been submitted to any other academic institution on non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : Umi Kalsum Binti Muhamad

Student I.D. No. : 2014381589

Programme : Master of Science in Information Technology – CS770

Faculty : Computer and Mathematical Sciences

Computing Project: The Issues of Food Waste Management: A Case of the

Title Fast Food Retailers in Malaysia

Signature of Student: Limitable

Date : July 2016

ABSTRACT

This thesis discusses on the food waste. Food waste is referring to the food loss which is occurred when the food is discarded or lost or uneaten by the customers. Basically the causes of the food waste are numerous and occurs during the production stage, processing stage and the consumption stage. The main focus is the issues in the food waste and how the technology can help the retailers to manage the food waste. So, the objectives of this research are to identify issues of food waste in fast food industry and to describe the current situation of food waste in Malaysia. In order to achieve the objectives of this thesis, the methodology used is qualitative approach which is by conducting the interviews with fast food industry manager. The selected retailers are Kentucky Fried Chicken (KFC) and Mc Donald (McD). For the interview done, there are four themes has been focused on. They are from management, awareness, technology and the wastages of food. Besides, the issues in each themes are able to discover by using the method of supply chain management. Then, in order to analyze the data obtained, the value chain analysis is being used to analyze the data. From the data analyzed, there is recommendation provided in order to help the retailers to reduce this issues by using the ICT.

ACKNOWLEDGEMENT

First and foremost, I would like to say Alhamdulillah and thanks to Allah S.W.T, with His merciful blessing because giving me the opportunities to complete this research from the beginning until the end. Without His grace, I would have lost sight in my purpose of to complete this research. All my thanks and appreciation will be lay upon Him.

Next, my deepest gratitude and appreciations is extended to Dr Jasber Kaur A/P Gian Sigh as my supervisor and project coordinator for this subject of CSP 760. Thank you for her guidance and advice for this research. She also gave me a lot of support, advice, and knowledge throughout these two semesters in order to complete this research. Thank you for being such a great mentor.

I would like to say thank you and appreciation to my beloved parents Muhamad Bin Sa'amah and Wan Yah Binti Wan Musa and also not to forget to all my family members who always give me support and motivation to complete my research. Not to forget their hard work and love for me in order to complete my studies, if not because of them I would not be here today. Their effort and support will not be forgotten and may Allah bless all of them.

Last but not least, a very special thanks to all the respondents from many restaurants. The restaurants that are involve are Restaurant Umi (Pn. Nurashikin), Tijarah Western Cuisine Restaurant (En. Mohd Izwan bin Mohd Zain), KFC (En. Wan Ahmad Bin Wan Hamidi) and Mc Donald (Pn. Wan Nur Hazilawati). Thank you to all the managers who willing to spend their time to sit for interview session for my research. Not be forgotten, thank you so much to Syed Azmi Al-Habsyi who spend his time to answer my questions since he was very busy. Thank you so much to all of the respondents.

I also would like to say thank you to my fellow friends, other participants and all the lecturers and also colleagues of Master Science (Information Technology) for their support and encouragement during the process of completing this research. Besides lending their hands in helping me, and giving ideas throughout the whole process in completing this research. Thank you very much to everybody who have involved in this research whether intentionally or unintentionally.

TABLE OF CONTENTS

			Page
AUTHOR'S DECLARATION ABSTRACT ACKNOWLEDGEMENT TABLE OF CONTENTS LIST OF TABLES		i ii	
		LIS	r of figures
CH	APTER ONE: INTRODUCTION		
1.1	Introduction		1
1.2	Background of Study		1
1.3	Problem Statement		2
1.4	Research Question		3
1.5	Research Objectives		3
1.6	Scope		4
1.7	Significance of Study	*	4
CH	APTER TWO: LITERATURE REVIEW	Company of the second	
2.1	Introduction		5
2.2	Food Waste Description		5
2.3	Food Waste Causes and Prevention		6
2.4	Food Security		10
2.5	Food Waste Framework and Hierarchy		11
2.6	Food Waste Effect		13
2.7	Food Waste Statistic in Malaysia		15
2.8	Food Technology		16
2.9	Food Supply Chain Management		19