

**REQUIREMENTS FOR THE DEVELOPMENT OF *HALAL* FOOD QUALITY  
MANAGEMENT SYSTEM IN MALAYSIA**

**By**

**MARIAM BINTI ABDUL LATIF**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in  
Fulfilment of the Requirements for the Degree of Master of Science**

**July 2004**

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

## DEDICATION

Especially dedicated to my beloved husband, Kamaruddin  
my beloved son, Muhammad Iqbal  
my beloved parents, Abdul Latif and Zainab  
my family and friends.

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

**REQUIREMENTS FOR THE DEVELOPMENT OF *HALAL* FOOD QUALITY MANAGEMENT SYSTEM IN MALAYSIA**

By

**MARIAM BINTI ABDUL LATIF**

**July 2004**

**Chairman: Professor Yaakob Bin Che Man, Ph.D.**

**Faculty: Food Science and Technology**

To the Muslims, food must not only be of good quality but must be truly *halal*, hence the study of *halal* food quality system was initiated. All foods are *halal* except those that are specifically mentioned in the *Quran* as *haram*. The increasing demand for global *halal* food estimated at USD 150 billion is in tandem with the increasing Muslim population of approximately 2 billion people. To tap this lucrative market, Malaysia should develop a comprehensive *Halal* Food System to assure the quality and authenticity of its *halal* food. The *Halal* Food System encompassing the laws, the enforcement team and the support of analytical facilities should be well coordinated to gain continuous confidence from Muslims worldwide.

The study on 10 *halal* food authorities worldwide including Malaysia indicated a global trend of increasing awareness and demand of *halal* food, whereby 60% respondents had gazetted their *halal* food acts, 100% had *halal* food enforcement bodies and 90% had established their *halal* food certification systems. As such, Malaysia should develop a

comprehensive *halal* food law to lay the foundation of an effective *halal* food system. The certification of *halal* food had been instrumental in ensuring the control of authentic *halal* food by the Islamic authority, apart from benefiting the food industries in promoting their sales and assuring the Muslim consumers during *halal* food purchase. The integration of Hazard Analysis Critical Control Point (HACCP) and *Halal* elements in a quality assurance programme is on-going in Malaysia, which would benefit the food industries in increasing their food exports. Similar efforts are noted in Indonesia and Thailand.

The survey on 500 consumers in Selangor showed that 81% respondents purchase both fresh and processed meat when they go shopping and they spent an average of RM 84 on fresh meat and RM 62 on processed meat products every month. 86%, 74% and 62% of respondents always purchase chicken nugget, chicken hamburger and chicken satay, respectively. 55% of respondents regarded packaging as very important in product appearance, followed with colour and shape. On the information of food labels, the consumers always look at the expiry date first followed with *halal* label, then with ingredients and additives. 70% consumers agreed that *halal* labeled products were not the same with those without. The study on consumer perception of *halal* food hub reflected that 70% Malaysian consumers were aware of the *halal* food hub and 55% were confident that Malaysia could become the world *halal* food hub. 61% consumers agreed that *halal* food is quality food and 84% agreed that Malaysian *Halal* logo served its purpose in assuring the authenticity of *halal* food.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sains

**KEPERLUAN UNTUK PEMBANGUNAN SISTEM KUALITI PENGURUSAN  
MAKANAN *HALAL* DI MALAYSIA**

Oleh

**MARIAM BINTI ABDUL LATIF**

Julai 2004

**Pengerusi: Professor Yaakob Bin Che Man, Ph.D.**

**Fakulti: Sains Makanan dan Teknologi**

Kepada orang Islam, makanan bukan sahaja mesti berkualiti baik tetapi mesti benar-benar *halal*, maka kajian sistem makanan *halal* ini dijalankan. Semua makanan adalah *halal* kecuali yang disebut di dalam *Quran* sebagai *haram*. Peningkatan permintaan dunia bagi makanan *halal* yang dianggarkan USD 150 billion adalah selari dengan pertambahan penduduk Islam seramai lebih kurang 2 billion orang. Untuk menembusi pasaran yang lumayan ini, Malaysia perlu membentuk satu Sistem Makanan *Halal* yang komprehensif bagi memastikan kualiti dan kesahihan makanan *halal* tersebut. Sistem Makanan *Halal* ini merangkumi perundangan, pasukan penguatkuasa dan sokongan kemudahan analisis yang mana perlu diselaraskan dengan baik untuk mendapat keyakinan yang berterusan dari semua orang Islam di seluruh dunia.

Kajian ke atas 10 autoriti makanan halal dari seluruh dunia termasuk Malaysia menunjukkan pola global yang semakin meningkat dari segi kesedaran dan permintaan

makanan *halal*, di mana 60% responden telah mewartakan akta makanan *halal* masing-masing, 100% mempunyai badan penguatkuasa makanan *halal* dan 90% telah mempunyai sistem pensijilan makanan *halal*. Oleh yang demikian, Malaysia sewajarnya membentuk undang-undang makanan *halal* yang komprehensif sebagai asas kepada sistem makanan *halal* yang berkesan. Pensijilan makanan *halal* adalah amat penting dalam memastikan makanan *halal* yang sah dapat dikawal oleh pihak berkuasa Islam, selain dari memanfaatkan industri makanan dalam promosi jualan dan meyakinkan konsumen Islam semasa membeli makanan *halal*. Integrasi elemen Hazard Analysis Critical Control Point (HACCP) dan *Halal* sebagai satu program jaminan kualiti sedang diusahakan di Malaysia, untuk dimanfaatkan oleh industri makanan bagi meningkatkan eksport makanannya. Usaha yang sama juga didapati di Indonesia dan di Thailand.

Kajian ke atas 500 orang konsumen di Selangor menunjukkan 81% responden membeli kedua-dua daging mentah dan produk daging yang diproses bila pergi membeli-belah dan mereka membelanjakan purata RM 84 ke atas daging mentah dan RM 62 ke atas produk daging yang diproses setiap bulan. 86% responden selalu membeli nugget ayam, 74% responden selalu membeli hamburger ayam dan 62% responden selalu membeli sate ayam. 55% responden menganggap pembungkusan adalah kriteria terpenting bagi pameran produk, diikuti dengan warna dan bentuk. Mengenai maklumat di atas label makanan, konsumen selalu membaca tarikh luput dahulu diikuti dengan label *halal*, bahan ramuan dan aditif. 70% konsumen bersetuju yang produk berlabel *halal* adalah tidak sama dengan produk yang tidak berlabel *halal*. Kajian ke atas

persepsi konsumen mengenai hab makanan *halal* menunjukkan 70% konsumen Malaysia tahu mengenai hab makanan *halal* dan 55% yakin Malaysia boleh menjadi hab makanan *halal* dunia. 61% konsumen setuju yang makanan *halal* adalah makanan berkualiti dan 84% bersetuju logo *halal* Malaysia adalah berperanan bagi memastikan kesahihan makanan *halal* tersebut.

## ACKNOWLEDGEMENTS

Alhamdulillah! I thank Allah for all His Blessings and Assistance to see me through this enlightening period of self indulgence in studying His words and to complete this study on *halal* food which made me realize the abundance of knowledge yet to be explored.

Firstly, I would like to express my sincere gratitude to my Mentor, Professor Dr. Yaakob Bin Che Man, the Chairman of my Supervisory Committee, for his continuous guidance, patience and support throughout the course of my study. My sincere gratitude is also dedicated to all my Supervisors; Associate Professor Dr. Jamil Bojei, Associate Professor Dr. Muhd. Fauzi Muhamad and Associate Professor Dr. Suhaimi Napis for their comments and encouragement.

Special thanks to Dato' Dr. Harrison Aziz bt. Shahabudin (Former Director, Food Quality Control Division, Ministry of Health Malaysia), Dato' Dr. Sarah bt. Yaacob (Director, State Health Department of Pahang), Datin Dr. Marlia bt. Ismail, Datin Dr. Norlaili bt. Abdul Aziz and Dr. Azizah bt. Haron, Dato' Dr. Matta bin Abdul Rahman, Dr. Kamarulzaman bin Abdul Rahman and staff of the Department of Veterinary Services Malaysia, Zahara Merican, Noriah bt. Ramli (UIA), Ustaz Nordin bin Ahmad and Ustaz Lokman bin Ab. Rahman (JAKIM), Dato' Dr. Ridzuan bin Md. Akil, Irfan Sungkar and Isma (RMA Perunding) and colleagues in the Food Quality Control Division of Ministry of Health and colleagues in the Ministry of Agriculture for their support and cooperation. I wish also to express my gratitude to all respondents to my questionnaires, local and abroad, for their cooperation and kindness.



My sincere appreciation to my dear colleagues; Muhammad El-Wathig Mirghani, Wanna Ammawath, Gabby Setiowaty, Syahariza bt. Zainul Abidin, Reni Rahayou bt. Mohd. Zain, Miskandar bin Mat Sahri, Ahmad Nizam bin Abdullah, Kambiz Shamsi, Kenny Loh Seng Kean and Gan Howe Lin, for their friendship.

Forever in my mind, my heartfelt appreciation goes to my parents, brothers and sister, and my in-laws for their moral support and understanding. And finally, my heartfelt gratitude to my beloved husband, Kamaruddin, and son, Muhammad Iqbal, for their love, patience and understanding.

I certify that an Examination Committee met on 7 July 2004 to conduct the final examination of Mariam binti Abdul Latif on her Master of Science thesis entitled “Requirements for the Development of *Halal* Food Quality Management System in Malaysia” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

**Suhaila Bt. Mohamed, Ph.D.**

Professor  
Faculty of Food Science and Technology  
Universiti Putra Malaysia  
(Chairman)

**Russly Bin Abdul Rahman, Ph.D.**

Associate Professor  
Faculty of Food Science and Technology  
Universiti Putra Malaysia  
(Member)

**Dzulkifly Bin Mat Hashim,**

Lecturer  
Faculty of Food Science and Technology  
Universiti Putra Malaysia  
(Member)

**Nik Ismail Bin Nik Daud, Ph.D**

Associate Professor  
Faculty of Food Science and Technology  
Universiti Kebangsaan Malaysia  
(Independent Examiner)

-----  
**GULAM RUSUL RAHMAT ALI, Ph.D**

Professor/Deputy Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date:

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirements for the degree of Master of Science. The members of the Supervisory Committee are as follows:

**Yaakob Bin Che Man, Ph.D.**

Professor  
Faculty of Food Science and Technology  
Universiti Putra Malaysia  
(Chairman)

**Jamil Bin Bojei, Ph.D.**

Associate Professor  
Graduate School of Management  
Universiti Putra Malaysia  
(Member)

**Muhd. Fauzi Bin Muhamad, Ph.D.**

Associate Professor  
Faculty of Education (Islamic Studies)  
Universiti Putra Malaysia  
(Member)

**Suhaimi Bin Napis, Ph.D.**

Associate Professor  
Faculty of Food Science and Technology  
Universiti Putra Malaysia  
(Member)

-----  
**AINI IDERIS, Ph.D.**

Professor/Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date:

## **DECLARATION**

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

-----  
**MARIAM BINTI ABDUL LATIF**

Date:

## TABLE OF CONTENTS

	<b>Page</b>
DEDICATION	ii
ABSTRACT	iii
ABSTRAK	v
ACKNOWLEDGEMENTS	viii
APPROVAL	x
DECLARATION	xii
LIST OF TABLES	xvi
LIST OF FIGURES	xvii
LIST OF ABBREVIATIONS/NOTATIONS/GLOSSARY OF TERMS	xix
 <b>CHAPTER</b>	
<b>1 GENERAL INTRODUCTION</b>	
1.1 Background	1
1.2 Problem Statements	5
1.3 Objectives of the Study	5
<b>2 LITERATURE REVIEW</b>	
2.1 Introduction	7
2.2 Religious Food Practices	9
2.3 Why <i>Halal</i> Food?	10
2.4 Concept and Definition	12
2.4.1 Principles Regarding Permissibility	15
2.4.2 Injunctions in Respect of <i>Halal</i> and <i>Haram</i> Food	19
2.4.3 Islamic Dietary Laws	20
2.4.3.1 Some Terminologies in Islamic Dietary Laws	21
2.4.3.2 Definition of <i>Halal</i> Food	23
2.4.3.3 Sources of <i>Halal</i> Food	24
2.4.3.4 <i>Halal</i> Slaughter	26
2.5 <i>Halal</i> Food Industry in Perspective	27
2.5.1 History of <i>Halal</i> Food in Malaysia	28
2.5.2 Globalization and the <i>Halal</i> Food Business	32
2.5.3 Potential of <i>Halal</i> Food Industry	34
2.6 Management of Food Control System	40
2.6.1 Food Legislation	41
2.6.2 Food Inspectorate	43
2.6.3 Analytical Support	44
2.6.4 Food Safety Assurance	46
2.6.5 Education on Food Handling	47
2.7 <i>Halal</i> Food Control	48
2.7.1 <i>Halal</i> Food Legislations	49
2.7.1.1 <i>Halal</i> Food Act	49

	2.7.1.2 International Standards in Food Trade	50
	2.7.1.3 Codex Standard on Use of the Term <i>Halal</i>	51
	2.7.1.4 Regional Standard on <i>Halal</i> Food	53
	2.7.1.5 Malaysian Standards on <i>Halal</i> Food	53
2.8	<i>Halal</i> Food Quality Assurance	54
	2.8.1 <i>Halal</i> Food Audit and Quality Assurance	54
	2.8.2 HACCP- <i>Halal</i> System	55
2.9	<i>Halal</i> Food Certification	61
	2.9.1 Global <i>Halal</i> Certification Bodies	63
2.10	<i>Halal</i> Food Research and Analytical Development	64
2.11	<i>Halal</i> Food and Consumerism	66
	2.11.1 <i>Halal</i> Food Labelling	66
	2.11.2 <i>Halal</i> Food Safety	68
	2.11.3 <i>Halal</i> Food Information	71
	2.11.4 <i>Halal</i> Food and Biotechnology	72
<b>3</b>	<b>METHODOLOGY</b>	
3.1	Research Framework	74
3.2	<i>Halal</i> Food Authorities Worldwide	75
	3.2.1 Respondent	75
	3.2.2 Format and Contents of Questionnaire	76
	3.2.3 Survey Instrument	76
	3.2.4 Data Analysis	76
3.3	Local Multinational Food Processing Companies	77
	3.3.1 Respondent	77
	3.3.2 Format and Contents of Questionnaire	77
	3.3.3 Survey Instrument	77
	3.3.4 Data Analysis	78
3.4	Selangor Consumers	78
	3.4.1 Respondent	78
	3.4.2 Format and Contents of Questionnaire	79
	3.4.3 Survey Instrument	79
	3.4.4 Data Analysis	80
3.5	Limitations of Study	80
<b>4</b>	<b>RESULTS AND DISCUSSION</b>	
4.1	<b><i>Halal</i> Food Authorities Worldwide</b>	82
	4.1.1 Respondents' Profile	82
	4.1.2 <i>Halal</i> Food Control	85
	4.1.2.1 Policy, Laws and Regulations	85
	4.1.2.2 <i>Halal</i> Food Administration	86
	4.1.2.3 Standards	87
	4.1.2.4 Inspection, Sampling and Product Recall	88
	4.1.3 <i>Halal</i> Food Legislation	89
	4.1.4 <i>Halal</i> Food Certification System	100
	4.1.5 Conclusion	119

4.2	Local Multinational Food Processing Companies	
4.2.1	Respondents' Profile	122
4.2.2	HACCP and <i>Halal</i> System in Malaysia	123
4.2.2.1	HACCP System	125
4.2.2.2	<i>Halal</i> as a Food Quality System	129
4.2.3	HACCP- <i>Halal</i> System in Indonesia	130
4.2.4	Conclusion	132
<b>4.3</b>	<b>Selangor Consumers</b>	
4.3.1	Respondents' Profile	133
4.3.2	Consumer Behaviour on <i>Halal</i> Food Purchase	135
4.3.2.1	Consumption Pattern of Meat and Meat products	135
4.3.2.2	Purchasing Behaviour for Processed Meat	139
4.3.2.3	Consumer Behaviour on Product Appearance and Labelling	141
4.3.3	Consumer Awareness on <i>Halal</i> Food Hub and <i>Halal</i> Food in General	144
4.3.4	Conclusion	155
<b>5</b>	<b>GENERAL CONCLUSION</b>	
5.1	Conclusion	158
5.2	Issues and Challenges	159
5.3	Recommendation	162
5.4	Suggestions for Future Research	172
	<b>REFERENCES</b>	174
	<b>APPENDICES</b>	192
	<b>BIODATA OF THE AUTHOR</b>	286