

UNIVERSITI PUTRA MALAYSIA

***TOTAL QUALITY MANAGEMENT PRACTICES AMONG HALAL
CERTIFIED FOOD SMEs IN SELECTED STATES OF MALAYSIA***

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**TOTAL QUALITY MANAGEMENT PRACTICES AMONG HALAL
CERTIFIED FOOD SMEs IN SELECTED STATES OF MALAYSIA**



By

RIZUWAN ABU KARIM

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

July 2017

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Dedication

To Suraya Bt Jamaludin, Muhammad Hafiz Bin Rizuwan, Muhammad Harith Bin Rizuwan and Nur Humaira Bt Rizuwan



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Abstract of thesis presented to the senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

TOTAL QUALITY MANAGEMENT PRACTICES AMONG HALAL CERTIFIED FOOD SMEs IN SELECTED STATES OF MALAYSIA

By

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July 2017

Chairman : Associate Professor Nolila Mohd. Nawi, PhD
Faculty : Agriculture

Considering the incidences of Shariah compliance of halal food products sold in the market, this study examines does TQM practices can influence food product with halal certification and what is the impact of food product with halal certification towards the performance of SMEs food manufacturers. Specifically, the study examines the relationship between strategic planning, information management, top management, process management, human resource and customer focus as variables that can influence trust and safety attributes of food product with halal certification. This research also investigates the impact of trust and safety towards the organizational performance of SMEs food manufacturer. Drawing upon the integration between TQM practices and product quality as well as the impact of food safety system and organizational performance, a conceptual framework in this study is developed. A quantitative approach is employed to achieve the objective of the study. Data were collected from 200 SMEs food manufacturers via survey questionnaire developed from related literature and discussion held with practitioners. The data collected were then analysed using structural equation modelling via WarpPLS 4.0. The findings of this study indicated that strategic planning had significant positive relationship with trust and safety. Information management also found had significant positive relationship with trust and safety. Findings also demonstrated that there is a significant positive relationship between top management and trust as well as safety. Moreover, findings indicated that process management only had positive significant relationship with trust. In addition, findings also shown that human resource only had positive significant relationship with safety. As for the impact of trust and safety towards performance of the certified halal SMEs food manufacturers, this study found that trust and

safety have a significant impact on organizational performance. Examining the elements that can be used by food manufacturers in Malaysia, findings of this study explains how the halal food production process can be improved. The conceptual framework also serves as a foundation to improve the performance of food manufacturers.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PENGURUSAN KUALITI SECARA MENYELURUH DI KALANGAN
PENGUSAHA MAKANAN HALAL INDUSTRI KECIL DAN SEDERHANA DI
KAWASAN TERTENTU DI MALAYSIA**

Oleh

RIZUWAN ABU KARIM

Julai 2017

Pengerusi : Profesor Madya Nolila Mohd. Nawi, PhD
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Rentetan daripada insiden produk makanan yang mendapat sijil pengesahan halal yang telah dipersoalkan statusnya sama ada ianya memenuhi kehendak syariat Islam atau tidak. Kajian ini dijalankan bagi mengenalpasti sama ada pengurusan kualiti secara menyeluruh (TQM) mempunyai perkaitan dengan produk makanan yang mendapat sijil pengesahan halal dan kesan produk makanan halal ke atas prestasi pengusaha makanan industri kecil dan sederhana (IKS). Secara khususnya, kajian ini tertumpu kepada perkaitan di antara perancangan strategik, pengurusan maklumat, pengurusan tertinggi, pengurusan proses, sumber manusia dan tumpuan pelanggan yang merupakan pembolehubah yang boleh mempengaruhi kepercayaan dan keselamatan makanan halal. Kajian ini juga memberi penekanan terhadap kesan kepercayaan dan keselamatan ke atas prestasi pengusaha makanan IKS yang menjual makanan halal. Satu kerangka konsep terbentuk ekoran daripada intergrasi antara amalan pengurusan kualiti secara menyeluruh dengan kualiti produk di samping kesan sistem keselamatan pemakanan serta prestasi organisasi. Kajian kuantitatif telah dijalankan untuk mencapai objektif kajian ini. Pengumpulan data dibuat terhadap 200 buah pengeluar makanan IKS menerusi borang soal-selidik yang telah dibangunkan dengan berpandukan kepada sorotan literatur serta perbincangan yang dilakukan dengan pengamal dalam bidang berkaitan. Data terkumpul telah dianalisis dengan menggunakan pemodelan persamaan berstruktur melalui *WarpPLS 4.0 (structural equation modeling via WarpPLS 4.0)*. Hasil kajian menunjukkan bahawa terdapat perkaitan positif yang signifikan antara perancangan strategik dengan elemen kepercayaan dan elemen kebersihan. Pengurusan maklumat juga

menunjukkan terdapat perkaitan positif yang signifikan dengan elemen kepercayaan dan kebersihan. Hasil kajian juga menunjukkan terdapat perkaitan positif yang signifikan di antara pengurusan tertinggi dan kepercayaan serta keselamatan. Hasil kajian seterusnya menunjukkan pengurusan proses hanya mempunyai perkaitan positif yang signifikan dengan kepercayaan. Selain daripada itu, hasil kajian seterusnya juga menunjukkan bahawa pengurusan sumber manusia hanya mempunyai perkaitan positif yang signifikan dengan keselamatan. Untuk melihat hubung-kait antara kesan kepercayaan dan keselamatan terhadap prestasi pengusaha makanan halal IKS, dapatan kajian menunjukkan bahawa elemen kepercayaan dan elemen keselamatan mempunyai perkaitan positif yang signifikan dengan prestasi organisasi. Secara keseluruhannya, kajian ini telah menjelaskan tentang bagaimana proses pengeluaran makanan halal boleh diperbaiki pada masa akan datang. Kerangka kajian yang terbentuk juga bakal bertindak sebagai asas dalam meningkatkan prestasi pengusaha makanan.

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I certify that a Thesis Examination Committee has met on 12 July 2017 to conduct the final examination of Rizuwan bin Abu Karim on his thesis entitled "Total Quality Management Practices among Halal Certified Food SMEs in Selected States of Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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LIST OF ABBREVIATIONS

BRC	British Retail Consortium
CICOT	The Central Islamic Committee of Thailand
GHP	Good Hygiene Practices
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Point
ISO	International Standard Organization
JAIM	Jabatan Agama Islam Melaka
JAIN	Jabatan Agama Islam Negeri Sembilan
JAIS	Jabatan Agama Islam Selangor
JAKIM	Jabatan Kemajuan Islam Malaysia
MAIJ	Majlis Agama Islam Johor
MAIN	Majlis Agama Islam Negeri
MAIN	Majlis Agama Islam Negeri Sembilan
MBNQA	Malcom Baldrige National Quality Award
MS1500:2004	Halal food-Production, Preparation, Handling and Storage General- Guideline
MS1500:2009	Halal food-Production, Preparation, Handling and Storage General- Guideline (2 nd Revision)
MS 1900: 2005	Quality Management Systems- Requirements from the Islamic Perspectives.
MUIS	Majlis Ugama Islam Singapura

CHAPTER 1

INTRODUCTION

This chapter outlines the initial context to this study. The first section of this chapter discusses the global halal food market. The next section highlights the Malaysian halal certification. The following section describes the certified halal food product issues in Malaysia. Subsequently the fourth, fifth and six sections explain the problem statement, research questions and research objectives that will be addressed in this study. The significance of this study is presented in section seven. Furthermore, section eight, nine and ten present the scope of the research, definitions of terms and organization of the thesis. Finally, section eleven presents the summary of the chapter.

1.1 The Global Halal Food Market

The global halal food market value has recorded about US\$560 billion a year and about 67 percent of the halal industry involves food (Jan, 2012). As reported by the Thomson Reuters and Dinar Standard (2016), Muslim consumers spent \$1,128 billion on food and beverages in 2014. During the same period, the total global food and beverages spent by consumers is estimated to be \$6,755 billion. Hence, the global expenditure of the Muslim food market is constituted to 16.7 percent.

From a market perspective, the traditional global halal food market remains in Asia since the majority of its population are Muslims. This is due to the report by the United Nations (2015), the world population as of 2015's revision is 7.3 billion of which 60 percent lives in Asia (4.4 billion), 16 percent lives in Africa (1.2 billion), 10 percent lives in Europe (738 million), 9 percent lives in Latin America and the Caribbean (634 million) and the remaining 5 percent lives in Northern America (396 million). Furthermore, the world population is projected to increase by more than 1 billion within the next 15 years. Asia is projected to be the largest contributor to future global population growth, adding 0.5 billion people between 2015 and 2030. Followed by Africa which has projected that 0.5 billion people will be living in that continent in year 2030. Meanwhile, smaller increments are projected in Europe, Latin America and the Caribbean, Northern America as well as Oceania (Table 1.1).

Table 1.1 : Population of the world and major areas, 2015 and 2030

Major Areas	Population (million) in year 2015	Population (million) in year 2030
World	7349	8501
Africa	1186	1679
Asia	4393	4923
Europe	738	734
Latin America and the Caribbean	634	721
Northern America	396	433
Oceania	47	57

(Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision. New York: United Nations)

In terms of population projection, the world's Muslim population in the next 20 years is expected to increase by about 35 percent, increasing from 1.6 billion in 2010 to 2.2 billion in 2030. Moreover, the majority of the world's Muslim population (about 60 percent) will continue to live in the Asia-Pacific region, while about 20 percent will live in the Middle East and North Africa. In the meantime, Europe's Muslim population is projected to grow from 44 million in-2010 to 58 million in 2030 (Table 1.2). Thus, Muslims will remain relatively small minorities in Europe and America.

Table 1.2 : Muslim population by region

Region	Year (2010) Estimated Muslim Population (million)	Year (2030) Projected Muslim Population (million)
World	1619	2190
Asia-Pacific	1005	1295
Middle East-North Africa	321	439
Sub-Saharan Africa	242	385
Europe	44	58
Americas	5	10

(Source: Pew Research Centers Forum on Religion & Public Life. The Future of the Global Muslim Population, 2011)

Detecting the potential emerging halal food marketplace, Table 1.3 presented the 10 countries with the largest projected number of Muslims in 2030. Among them are Pakistan, Indonesia, India, Bangladesh, Nigeria, Egypt, Iran, Turkey, Afghanistan and Iraq. Based on Table 1.3, by 2030 Pakistan is expected to surpass Indonesia as the country with the largest

number of Muslim population reaching 256 million. Meanwhile, Indonesia is projected to reach 238 million of the Muslim population in 2030. Followed by India (236 million), Bangladesh (187 million) and Nigeria (116 million) which are expected to be the third, fourth and fifth country that has the largest number of Muslim population. While, Egypt, Iran, Turkey, Afghanistan and Iraq is estimated to be the other five countries that have the largest projected number of Muslims in 2030 with, 105 million, 89 million, 89 million, 50 million and 48 million respectively.

Table 1.3 : Summary of 10 countries with the largest projected number of Muslim in 2030

Country	Projected Muslim Population (million)
Pakistan	256
Indonesia	238
India	236
Bangladesh	187
Nigeria	116
Egypt	105
Iran	89
Turkey	89
Afghanistan	50
Iraq	48

(Source: Pew Research Centers Forum on Religion & Public Life. The Future of the Global Muslim Population, 2011)

There are several regulatory bodies across the world that are identified as the most reputable in awarding halal certification to companies such as the Jabatan Kemajuan Malaysia (JAKIM), Majlis Ugama Islam Singapura (MUIS), Lembaga Pengkajian Pangan, Obat-Obatan Dan Kosmetika Majelis Ulama Indonesia (LPPOM-MUI), The Central Islamic Committee of Thailand (CICOT), Brunei Islamic Religious Council, Halal Monitoring Committee (HMC), Halal Food Authority (HFA) and The Islamic Food and Nutrition Council of America (IFANCA) (Syed Marzuki, 2012). However, JAKIM was acknowledged as the strictest body in granting halal certification to the applicants (Abd Latif, Mohamed, Sharifuddin, Abdullah and Ismail, 2014). According to Ab Rahman, Saleh, Ab Rahman and Hashim (2012) who reiterated that the Malaysian halal certification or known as JAKIM halal certification was recognized as one of the well accepted halal certification in the world.

1.2 Malaysian Halal Certification

Malaysia is a multi-religious country and the majority of its population are Muslims. As a Muslim, they are required to strictly follow Islamic dietary law for their food consumption. There are several reasons why Malaysian consumers preferred to buy food products certified with the JAKIM halal certification if these were readily available in the market. First, Malaysian consumers feel more confident and have trust towards food products with the JAKIM halal certification (Rezai, Mohamed and Shamsudin, 2012; Daud, Che Din, Bakar, Kadir and Sapuan, 2011; Shafie and Othman, 2006). Second, JAKIM halal certification are becoming a symbol of premium quality for food products (Syed Marzuki, Hall and Ballantine, 2012; Abdul Talib, Mohd Ali and Jamaludin, 2008; Musa, 2008; Jafri, 2006) and thirdly, the quality of products which carry the halal certification by JAKIM are similar or even better than the quality of food product with hazard analysis critical control point (HACCP), good manufacturing practice (GMP) or ISO 9001 certification (Daud et al., 2011; Abdul Talib et al., 2008; Shafie and Othman, 2006).

The history of halal food in Malaysia started as early as 1970. In 1971, Malaysia was one of the few countries that introduced the halal logo for food products. Then, in 1980 Malaysia's legislation related to the halal issue was specified in Section 15A, Trade Description Act 1972. This act comprised two orders: Trade Description Order (the usage of halal) and food labeling 1975, which described that the food is legally fit from Shariah objective and safe to consume by Muslim consumers (Riaz and Chaudry, 2004).

In 2004, a comprehensive guideline for Shariah standards in producing halal food has been introduced by JAKIM known as Malaysia standard MS1500:2004 (Halal Food-Production, Preparation, Handling and Storage General Guidelines). As explained in MS 1500:2004, seven basic principles that must be fulfilled by food manufacturers for the preparation of halal food such as sources of halal feed, slaughtering of animals, processing, handling and distribution, product storage, product display, product serving, safety, hygiene and sanitation practices, packaging and labelling must be in an accordance to Shariah. Another requirement under MS 1500:2004 is that food premises should avoid any cross contamination with any non-halal sources during or in between the food production process (Talib, Zailani and Zainuddin, 2010).

Moreover in 2009, the standard had been reviewed for the second revision and was known as MS 1500:2009. Under the new requirements of MS 1500:2009, food manufacturer must recruit at least one Muslim halal executive to work at their food premises (Mohd. Janis, 2004).

Halal certification refers to the certificate issued by Islamic authorized organization (Noordin, Md Noor, Hashim and Samicho, 2009). In Malaysia, the issuance of halal certification was administered by JAKIM and the other local state government agencies that include Majlis Agama Islam Negeri (MAIN) and Jabatan Agama Negeri (JAIN) (JAKIM, 2010). Figure 1.1 outlined several steps by JAKIM for a company to obtain halal certification:

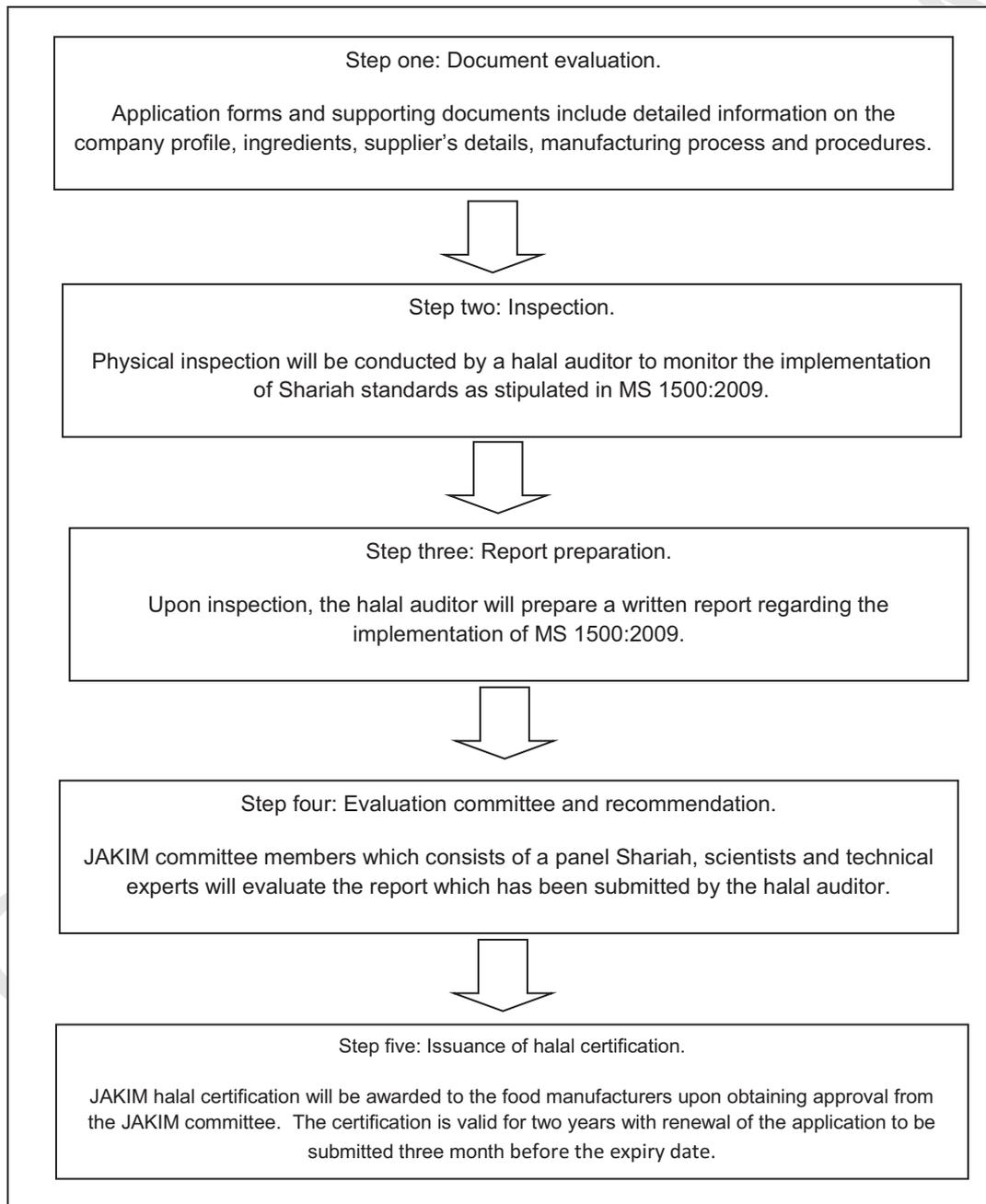


Figure 1.1 : JAKIM Halal Certification Procedures

The demand of halal foodstuff is no longer exclusive for Muslim consumers. Non-Muslim consumers also preferred to purchase halal food products in the market because it is cleaner, healthier and tastier and they also believed that the process of producing it was done according to the environmentally concern (Rezai et al., 2012).

Given the continuous demand of halal foodstuff from customers, JAKIM has made a significant stride towards promoting halal certification to the business entity in Malaysia. This can be seen through the increasing numbers in relation to the issuance of JAKIM halal certification. As shown in Table 1.4, the highest number in relation to the issuance of JAKIM halal certification from 2007 to 2012 was recorded in products (9296), and followed by food premises (1357). Meanwhile, the slaughtering house was the lowest sector that recorded the issuance of JAKIM halal certification from 2007 to 2012 accounted for 130. Moreover, the statistics showed that the rate of issuance for products, food premises and slaughtering house showed a significant increase from 2010 to 2012 than that from 2007 to 2009. This might be due to the number of applicants for JAKIM halal certification has increased as well.

Table 1.4 : The statistics of JAKIM halal certification (2007-2012)

Category	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Total
Products	793	1125	1102	1590	1512	3174	9296
Food Premises	36	79	94	173	301	674	1357
Slaughtering House	7	16	10	17	18	62	130

(Source: JAKIM, 2014)

Despite the increasing number of issuance of the JAKIM halal certification as discussed earlier, Table 1.5 reported that small and medium-sized enterprises (SMEs) were the major contributors to halal food players in Malaysia. This is because, since 2007 to 2013, SMEs were the highest industries that have been awarded with JAKIM halal certification and this accounted for 5426. The second highest was recorded by multinational corporation (MNCs) which accounted for 3406. Subsequently, microenterprises are the lowest industry granted to JAKIM halal certification which accounted for 3744.

Table 1.5 : The statistics of JAKIM halal certification by type of industry (2007 – 2013)

Category	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Year 2013	Total
Microenterprises	172	243	250	418	561	1380	720	3744
SMEs	392	576	583	837	751	1591	696	5426
MNC	272	401	374	526	517	934	382	3406

(Source: JAKIM, 2014)

According to SME Corporation Malaysia (2016), Malaysian SMEs are categorized into three different sizes namely micro, small and medium. The details of the definition of SMEs are summarized in Table 1.6. Based on Table 1.6, a business can be defined as SMEs if it meets either one of the two specified criteria, namely sales turnover or full-time employees. For microenterprises, sales turnover must be less than RM 300,000 with fewer than five workers. Manufacturing (including agro-based) and manufacturing-related services SMEs, their sales turnover should be less than RM 25 million with numbers of employees fewer than 150. In addition, primary agriculture and services (including ICT) SMEs, their sales turnover must be less than RM 5 million with fewer than 50 full-time employees.

Table 1.6 : New definition of Malaysian SMEs

Category	Micro	Small	Medium
Manufacturing	Sales turnover of less than RM 300,000 OR, Employees of less than 5 employees	Sales turnover from RM 300,000 to less than RM15 million OR, Employees from 5 to less than 75	Sales turnover from RM 15 million to not exceeding RM 50 million OR, Employees from 75 to not exceeding 200
Services and Other sectors	Sales turnover of less than RM 300,000 OR, Employees of less than 5 employees	Sales turnover from RM 300,000 to less than RM15 million OR, Employees from 5 to less than 75	Sales turnover from RM 15 million to not exceeding RM 50 million OR, Employees from 75 to not exceeding 200

(Source: SME Corporation Malaysia, 2016)

Additionally, in relation to the status of industries by SMEs distribution, Table 1.7 stated that from 2007 to 2013, non-bumiputra was recorded the highest status of SMEs which has JAKIM halal certification accounted for 3898 and only 1528 of SMEs categorized as bumiputra which were granted with the JAKIM halal certification.

As posted by Jamil Khir (2017), more than 70 percent of SMEs in halal industry were dominated by non-bumiputra. In addition, Zahidi (2016) stated, only 28 percent of bumiputra applied for halal certification in year 2016. On the other hand, 72 percent of non-bumiputra applied halal certification for their product. According to Mohd Tawil, Ramlee, Jaafar and Mohd Saat (2015), the level of awareness among bumiputra SMEs in halal business especially those who are involved in food industry is still low. This is because, only 34 percent of halal certified company owned by bumiputera. Whereas another 66 percent of non-bumiputera being certified with JAKIM halal certification. Mohd Tawil et al. (2015) suggested that the numbers of bumiputra can be increased if they understand on the potential of halal food business. Its potential was so big and will grow bigger by time. So, SMEs especially bumiputra must take this opportunity to seroiuly involved in halal food business.

Table 1.7 : The statistics of JAKIM halal certification by SMEs distribution (2007 – 2013)

Category	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Year 2013	Total
Bumiputra	94	160	153	220	220	469	212	1528
Non-bumiputra	298	416	430	617	531	1122	484	3898

(Source: JAKIM, 2014)

1.3 Certified Halal Food Product Issues in Malaysia

Koc, MacRae, Mougeot, Luc and Welsh (1999, p.1) defined food quality as “food which is available at all times; all persons have a means of access to it, nutritionally adequate in terms of its quality, quantity and variety that is acceptable within the given culture”. Conversely, quality of food in Islam is contained within the concept of halal (permitted) and haram (prohibited) and recommended by the Shariah Law (Dahalan, 2008; Kocturk, 2002).

According to MS 1500:2009, ingredients of halal food should be permitted under the Shariah law and fulfill the following conditions (Mohd Janis, 2004):

- i- does not contain any parts or products of animals that are non-halal by Shariah law or any parts or products of animals which are not slaughtered according to Shariah law
- ii- does not contain najas according to Shariah law
- iii- safe for consumption, non-poisonous, non-intoxicating or non-hazardous to health
- iv- not prepared, processed or manufactured using equipment contaminated with najas according to Shariah law
- v- does not contain with any human parts or its derivatives that are not permitted by Shariah law.

In reality, Muslim consumers face difficulty in determining the status of halal food products (e.g. halal or haram) sold in the market because halal has clear credence quality characteristics (Bonne and Verbeke, 2008). Credence characteristics of halal refers to the nature of the raw materials, origin of its resources and processing method of the food itself which cannot be evaluated easily by consumers even during and after purchasing the halal food products (Bonne and Verbeke, 2008). So, food manufacturers should communicate the presence of credence characteristics of halal food products to their customers through its labeling. Only halal certification can provide this information to the customers (Mohamed, Shamsudin and Rezai, 2013). However, scenario of non-Shariah compliance of raw materials used and the incidence of halal food product which are prepared in unhygienic practices lead to the Muslim consumer's curiosity towards the halal toyyiban of food product with halal certification.

In May 2014, the two Cadbury chocolate products namely Cadbury Dairy Milk and Cadbury Dairy Milk Hazelnut Roasted Almond were found to contain non-halal materials (e.g. porcine). Responding to this incidence, Muslim consumers in Malaysia urged that serious action should be taken by JAKIM to suspend the products from being sold in the market (Mohamed, Abdul Rahim, Ma'ram and Hamza, 2016).

During the month of Ramadhan in 2010, under halal food laws, JAKIM has filed a legal suit against 50 hotels because of the doubtful raw materials used, doubtful sources of raw materials and there is a direct contamination between halal and non-halal materials at their food premises (Ab Halim, Mohd., Mohd Salleh, Yalawae, Syed Omar, Ahmad, Ahmad and Mohd Kashim, 2014).

Rezai (2008) reported that halal food products such as sesame seed oil, peas, chili sauce, biscuits and canned sardines were found displayed on the same shelves with pork. According to MS 1500:2009 standard, to avoid any direct contamination between halal and non-halal items, halal food should be segregated from resources that are non-halal.

Moreover, the issues related to fake halal label as reported in Table 1.8 had a great impact on Muslim consumer's uncertainty towards genuine of halal certification. Table 1.8 presented some of the fake halal label issues in Malaysia.

Table 1.8 : Issues related to fake halal label

Author	Title	Halal food issues
Rezai et al. (2012)	Assessment of consumer confidence on halal labeled manufactured food in Malaysia	A famous brand of chewing gum in Malaysia believed to be using a fake halal label
Ab Rahman et al. (2012)	Factors contributing to non-compliance of the halal standard among restaurant operators in Malaysia	Food premises was displaying various types of private halal label
Ibrahim and Mokhtarudin (2010)	Fraudulent quality labeling; case of halal labeling	Fake halal label was displayed at Klang Valley food court

Source: Rezai (2008)

Good hygiene practice (GHP) is a compulsory practice which should be adhered by food manufacturers in preparing halal food. In addition, the JAKIM, halal certification will be awarded to food manufacturers if they follow The Codex General Principles of Food Hygiene and the Malaysian Standard MS 1514 on General Principles of Food Hygiene (Mohd Janis, 2004; Hashim, 2004). But, several cases of food manufacturers who are unhygienic causes negative perceptions among Muslim consumers towards GHP compliance by food manufacturers in their premises. For an example, Penang's city council has shut down popular Line Clear Nasi Kandar restaurant for two weeks after discovered pests on its premises. The council also found live and dead rats in the premises, along with cockroaches (Sukumar, 2017).

Mohd Yusoff (2017) reported that 297 cafe of Secret Recipe was failed to implement GHP at their premises. According to JAKIM, Halal Hub Director, these premises were failed to follow the elements of hygiene and sanitation practices as stipulated in MS 1500:2009. As a consequences, their halal certification was suspended until the correction action will be taken by the café operators.

Abu Hassan (2014) reported that halal certification for one of the factory which produced bread in Ipoh has been suspended by JAKIM. This is because the factory were found to be unhygienic.

Mohamed, Shamsudin, Rezai and Chiew (2008) reported that one of the famous bread which was labeled with the JAKIM halal certification was suspended for stamping the JAKIM halal certification. This is because, premises that produced the bread which is located in Nilai, Negeri Sembilan was found to have failed to comply with the GHP standard as laid out by MS 1500:2004 standard.

The issues of food products with the halal certification which are non Shariah compliance as discussed above had a great impact on Muslim consumers uncertainty towards trust and safety attributes of the halal certification.

Trust attributes of food products with halal certification refers to the Shariah compliance of the production process, packaging process, storage and distribution process (Mohd Janis, 2004). Meanwhile, safety refers to halal food will not cause harm to the health of consumers because it is prepared in accordance to GHP (Hashim, 2004).

1.4 Problem Statement

Halalan toyyiban merely means allowed and permissible for consumption in relation to Shariah law as long as they are safe and not harmful. The opposite of halal is haram/ non-halal which means forbidden and prohibited. Any food or drink which lies within the grey area and does not fall clearly under the halal or non-halal category was classified as 'Syubhah', alternatively called questionable or dubious. In this category, until the status becomes clear, Muslims should avoid consuming Syubhah food or drinks (Riaz and Chaudry, 2004).

Halalan toyyiban does not stop at the Islamic way of slaughtering of animals. But it is more holistic concept where safe and hygienic guidelines must be adhered by manufacturers. This concept must be implemented starting from farm until it reaches to the table of consumers (Bidin, 2013). Syed Marzuki et al. (2012) concluded that trust and safety are two attributes of halal certification which must be fulfill by food manufacturers if they want to ensure halalan toyyiban of halal food product.

Halal food does not only encompass Shariah compliance of ingredients, but also covers the concept of halalan toyyiban of food as well. According to Yusof Ali (2005), toyyib means wholesome, pure, and clean and nourishing

and *toyyibbah* means wholesome because it is safe to consumer health (Yaakob, Jamil, Awis Qurni and Ahmad Nizam, 2007).

Currently, the implementation of Shariah standards for halal food products by food manufacturers was related to production, packaging, storage and transportation (Mohd Janis, 2004).

In relation to the issues as discussed in section 1.3, Che Din and Daud (2014) urged halal food manufacturers to implement total quality management (TQM) practices if they want to produce Shariah compliance of halal food product. Furthermore, Abdul Talib, Mohd. Ali and Idris (2013) recommended that TQM practices and Shariah elements in the halal food production process should be implemented together if food manufacturers want to continuously produce safe and Shariah compliance of the halal food products. In addition, quality management system from the Islamic perspective or known as MS 1900:2005 emphasized that management aspect such as strategic planning, information management, top management, process management, human resource and customer focus must be implemented if the organization wants to deliver products and services that meet customer's requirements, as well as the Shariah regulatory requirements.

Previous literatures indicated that TQM can influence product quality (Agus, 2005; Prajogo and Sohal, 2003; Tee and Rao, 2002; Arumugam, Ooi and Fong, 2008; Fotopoulos and Psomas, 2009). Researchers such as Abdul Talib, Mohd Ali and Idris (2014), Psomas, Vouzas and Dimitrios (2013), Psomas and Fotopoulos (2010), Alsaleh (2007) and Barendsz (1998) have pointed out that the application of TQM practices can ensure the safety of food products.

A Study conducted by Brah, Tee and Rao (2002) indicated that six dimensions underpinning the MBNQA model namely strategic planning, top management, customer focus, human resource, process management, and information management did influence quality performance. In addition, Prajogo and Sohal (2004) explained MBNQA can influence the quality performance of manufacturing and services firm.

Although the implementation of TQM can influence product quality and food safety system, the implementation of these practices among food manufacturers in Malaysia is still low (Che Din and Daud, 2014; Abdul Talib et al., 2013). In addition, Arumugam et al. (2008) explained, little is known about the effect of TQM particularly within the context of Malaysian manufacturing industry. According to Anuar, Mahidin and Abdull Latiff (2013), they stated that not all companies especially SMEs in Malaysia can

successfully implement TQM. This is because SMEs was labeled as business enterprise which faced lack of knowledge, lack of skills and lack of business resources. As such, this study intends to explore does TQM practices can influence trust and safety attributes of halal certification

Halal certification refers to the examination of food process following Shariah requirements (Mohd Yusoff, 2004). Halal certification provides benefits to the McDonald's in Singapore because it is indicated that the food products not only fulfills the halal requirement, but also follows the strict hygiene practices. Due to the confidence of consumers towards Shariah compliance of halal food products sold by McDonald's, McDonalds in Singapore recorded an increase in sales (Abdul Talib and Mohd Ali, 2009).

According to Mohd Yusoff (2004), halal certification can increase sales of food manufacturers because it can secure a bigger market share as halal food suitable for both Muslim and non-Muslim. Thus, food producers should look into halal certification if they want to improve their performance.

The incidence of Cadbury chocolate (Mohamed et al., 2016) and Gardenia (Mohamed et al., 2008) was causes a major shocks among Muslim consumers in Malaysia about the status of Shariah compliance of these product. This incidence had led to the muslim consumers intention to stop buying these products. In addition, cases related to unhygienic practices could create a financial impact to organization like what occurred to Nasi Kandar Line Clear restaurant. According to the owner, Sahubar Mohd Ali, he was experienced RM 10, 000.00 losses due to the shut down for three days of the restaurant (Sukumar, 2017).

So, incidence after incidence related to non-Shariah compliance of halal food product has raised question to the researcher about what are the impact of these incidence to performance of food manufacturers. Previous literature reported that food safety system or ISO 9001 certification can improve the performance of the organization. As for the relationship between food safety system and organizational performance, Kafetzopoulos and Gotzamani (2014) found that the effective implementation of both ISO 9001 and HACCP had a significant positive impact on organizational performance. In the same line, studies conducted by Scott, Wilcock and Kanetkar (2009), Trienekens and Zuurbier (2008), Khatri and Collins (2007) and Semos and Kontogeorgos (2007) claimed that HACCP implementations can improve the quality of food products.

Considering the impact of food safety system towards the organizational performance, this study will examine the impact of trust and safety attributes of halal certification towards the performance of food manufacturers.

1.5 Research Questions

Generally, this study seeks to examine does TQM practices can influence food product with halal certification and what are the impact of food product with halal certification towards the organizational performance. In order to achieve the general research question, this study aims to answer the following research questions:

- i- does strategic planning can influence halal certification attributes?
- ii- does information management can influence halal certification attributes?
- iii- does top management can influence halal certification attributes?
- iv- does process management can influence halal certification attributes?
- v- does human resource can influence halal certification attributes?
- vi- does customer focus can influence halal certification attributes?
- vii- what are the impact of halal certification attributes towards organizational performance of halal food manufacturers?.

1.6 Research Objectives

The general objective of this study is to analyse the TQM practices for food product with halal certification and the performance of SMEs food manufacturers. Specifically, the main aim of this study is to examine the relationship of each dimension of the MBNQA practices (e.g. strategic planning, information management, top management, process management, human resource and customer focus) to trust and safety attributes of the the halal certification. As halal certification is likely to effect performance of food manufacturers, this study intends to examine the impact of trust and safety towards organizational performance. Hence, the specific objectives that this study attempts to achieve are:

- i- to examine the relationship between strategic planning and halal certification attributes
- ii- to examine the relationship between information management and halal certification attributes
- iii- to examine the relationship between top management and halal certification attributes
- iv- to examine the relationship between process management and halal certification attributes
- v- to examine the relationship between human resource and halal certification attributes
- vi- to examine the relationship between customer focus and halal certification attributes
- vii- to examine the impact of halal certification attributes towards organizational performance.

1.7 Significance of the Study

The study will be able to offer a significant contribution to the following groups:

1.7.1 The Producers

The study will provide a clear understanding to the food manufacturers on the dimension of TQM practices that will influence trust and safety attributes of halal certification. Food manufacturers should not only concentrate on the production, processing, storage and distribution processes of the halal food products, but also need to pay more attention on the TQM aspects as well.

As the study also looks at the impact of halal certification attributes towards performance of the organization, food manufacturers would have an insight on which attributes of halal certification can have an impact on the performance of food manufacturers. Knowing and understanding the influence of trust and safety towards the performance of the organization, food manufacturers must acknowledge that halal certification can be a source of competitive advantage for food manufacturers.

1.7.2 The Academicians

This study is important to the academicians as it contributes to the body of knowledge relating to the resource based view (RBV) theory. The RBV theory mainly focuses on how an organization utilizes its resources in order to achieve its superior performance. In other words, the RBV tries to examine the relationship between the internal characteristics and the performance of an organization (Barney, 1991).

The conceptual framework in this study demonstrates a conceptual link between TQM practices, halal certification attributes and the performance of food manufacturers. This study extends the traditional RBV theory by proposing halal certification attributes as a mechanism to achieve the dynamic capability. According to Barreto (2010) and Zahra, Sapienza and Davidsson (2006) dynamic capability is still in its infancy stage and literature related to this subject is still very confusing. This is due to the inconsistent and contradictions of definitions. In addition, there is still limited research conducted in this area (Helfat and Peteraf, 2009; Capeda and Vera, 2007).

1.7.3 The Policymaker

The Malaysia standard MS1500:2009 (Halal Food-Production, Preparation, Handling and Storage General Guidelines) is the guideline in producing halal food products. This comprehensive framework describes raw materials, processing, ingredients and additives, handling, packaging and logistic activities for halal food products that should follow Shariah Law.

Strategic planning, information management, top management, process management, human resource and customer focus are six dimensions of MBNQA practices. These six dimensions can be a new guideline to be formulated by JAKIM and its application shall be used by the halal certificate holder. Furthermore, these dimensions are supposed to be one of the mechanism in ensuring and preventing any non-compliance in producing halal food products.

1.8 Scope of the Research

Basically, this study focuses on the relationship between TQM practices, halal certification attributes and performance of the organization. TQM practices in this study consists of strategic planning, information management, top management, process management, human resource and customer focus. These six dimensions were adapted from MBNQA perspective. Meanwhile, trust and safety are two attributes of halal certification.

This study also examines the impact of trust and safety attributes of halal certification towards the performance of food manufacturers in Malaysia. It can be seen that this study is motivated by the quest to answer two question “Does the multi dimensions of TQM practices can influence trust and safety attributes of halal certification?” and “What is the impact of trust and safety attributes of halal certification to the performance of food manufacturers in Malaysia?”

This study focuses on SMEs in the food manufacturing sectors in Malaysia. Data were collected from SMEs food manufacturers via survey questionnaire developed from related literature and a discussion held with practitioners. The unit of analysis for this study was the individual employee. This is because only knowledgeable Muslim employees must be assigned to handle the entire halal food production process starting from the selection of raw materials until it is distributed to the customers. Hence, halal committee members, halal executives, halal supervisors or production supervisors who are working in the food production premises represented his/her firm when answering the survey question. As this study is limited to SMEs in the food

manufacturing sector in Malaysia, the findings and conclusion drawn from this study only represent Malaysian SMEs food manufacturers.

1.9 Definition of Terms

Below are the definitions of terminologies used for TQM practices, halal certification attributes and organizational performance. These definitions can be a guideline in the interpretation of the concepts employed in this study.

Strategic Planning

Strategic planning refers to the organisation's strategic and business planning and deployment of plans, along with the organisation's attention to customer (Evans and Lindsay, 1999)

Information Management

This element refers to the management of quality information that influenced the company performance. Organization that consistently collect and analyzed information will be more successful than those does not (Samson and Terziovski, 1999).

Top Management

This element refers to senior executives' leadership and personal involvement in setting strategic directions and building and maintaining a leadership system that will facilitate high organisational performance, individual development, and organisational learning (Samson and Terziovski, 1999)

Process Management

This category examines the key aspects of an organization's process management including customer-focused design, product and services delivery, key business and support process. This category encompasses all key process and all work units (Evand and Lindsay, 1999).

Human Resource

This construct refers to the workforce development, employee involvement, teamwork and training provided by the organization (Evans and Lindsay, 2004).

Customer Focus

This element addresses how and how well the organisation determines current and emerging customer requirements and expectations, provides effective customer relationship management, and determines customer satisfaction (Evans and Lindsay, 1999)

Trust

Trust refers to the Shariah compliance of the production process, packaging process, storage and distribution process (Mohd Janis, 2004)

Safety

Safety of halal food is food that will not cause harm to the health of consumers because it is prepared in accordance to GHP (Hashim, 2004)

Organizational Performance

Organizational performance refers to an achievement of strategies executed by the organization which could be measured by financial performance and non-financial performance. Financial performance can be measured by monetary value such as profit and sales. Meanwhile, non-financial performance is anything that are not available from the accounting system such as customer satisfaction and employee satisfaction (Ahmad, Wilson and Kummerow, 2011).

1.10 Organization of the Thesis

This study consists of six chapters. Chapter 1 gives a general information about the global halal food market, Malaysian halal certification and issues related to JAKIM halal certification. Chapter 1 also includes the problem statement, research questions, research objectives, significance of the study, scope of the research and definition of terms used in this study. Chapter 2

provides a detailed literature review of related studies in this field. Chapter 3 discuss on the conceptual framework in this study. Chapter 3 also identifies the hypothesized relationship between the variables in the conceptual framework. Furthermore, chapter 4 presents the research design, data analysis technique and software used to analyze the data. Chapter 5 covers the results of the research findings including preliminary data analysis results, descriptive statistics of the latent constructs analysis, respondents' profile, results of the measurement model and also analysis and results of the structural model. Discussion of findings, contribution of this study, limitations of the study, direction for the future research and conclusion are presented in chapter 6.

1.11 Summary of the Chapter

This chapter introduced the research topic and outlined the areas of research. The global halal food market and Malaysian halal certification were briefly discussed to highlight the potential of halal food products to food manufacturers. The issues related to JAKIM halal certification was raised by the researcher to justify why this research is to be carried out. The research questions and research objectives are developed in relation to the problem statement. The scope of the study is to provide the outline of the research and the significance of the study is highlighted to demonstrate the importance of this study to the producers, the academicians and to the policy makers.

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