IMPLEMENTATION OF HALAL FOOD MANAGEMENT SYSTEM IN SMALL AND MEDIUM ENTERPRISES FOOD MANUFACTURERS

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IPPH 2018 10

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By

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

August 2018

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

IMPLEMENTATION OF HALAL FOOD MANAGEMENT SYSTEM IN SMALL AND MEDIUM ENTERPRISES FOOD MANUFACTURERS

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August 2018

Chair : Prof. Russly A Rahman, PhD
Institute: Halal Products Research Institute

Non-compliant cases toward a *Halal* standard (MS1500:2009) can have negative effects on Muslim consumer confidence, as well as affecting the profitability and reputation of the companies involved. In practice, non-compliance is directly associated with ineffective implementation of the management system. This signifying the need to identify and examine the critical factors for effective implementation of *Halal* food management system. Additionally, although there have been calls and efforts to develop an instrument to assess the effectiveness of food management system (i.e. food safety and quality) implementation, to date, limited instrument is available for *Halal* context. Empirical research on the *Halal* food management system itself is rather lacking. To fill the practical and theoretical knowledge, the main purpose of this study is to develop an instrument that assesses the effectiveness of *Halal* food management system implementation for small and medium enterprises (SMEs) food companies. A mixed-methods sequential approach was employed. In the qualitative phase, 15 semi-structured interviews were conducted with *Halal* executives (n=7), consultants (n=4) and auditors (n=4) from JAKIM to identify critical factors for effective implementation of *Halal* food management system in SMEs. Two of the *Halal* executives are from large companies, their perspectives were obtained for benchmarking purpose. Ten themes were found; top management commitment; consumer focus; employee attributes and management; teamwork; information capacity; training and education; policy and procedures; adequate support; *Halal* personnel empowerment and supplier management. In the second phase, these qualitative findings were used in instrument development. In the third phase, a survey was conducted with SMEs food representative (n=181) to test and validate the developed instrument; 163 responses were used in the final analysis. Exploratory factor analysis (EFA) extracted nine factors: management and environmental support; consumer focus; employee attributes and management; teamwork; information capacity; training, policy and procedure; *Halal* personnel empowerment; supplier management and supplier assessment. Each factor has acceptable internal reliability (Cronbach alpha = 0.927-0.962). Confirmatory factor analysis (CFA) results provided evidence for convergent (Overall factor loading>0.7, AVE>0.5, CR>0.7) and discriminant validity (HTMT ratio<0.90). The result of structural equation modelling

(SEM) found the proposed instrument to be predictive of operational performance (R^2 = 0.757; Q^2 = 0.475) and product quality (R^2 = 0.706; Q^2 = 0.564). These results indicate that the instrument developed is a valid and reliable. It can be used by a food company as a self-assessment tool. In doing so, the company may select suitable strategies to allocate their resources, provide necessary support, and increase the effectiveness of their *Halal* food management system. Policy makers could use these findings to formulate policies and effectively improve the components of national *Halal* food control system to facilitate SMEs to effectively implement their *Halal* food management system. As one of few studies that focus on the *Halal* food management system, this study constitutes a foundation that could facilitates a number of new research avenues to be explored in the future.

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

PELAKSANAAN SISTEM PENGURUSAN MAKANAN HALAL DI SYARIKAT PENGILANG MAKANAN PERUSAHAAN KECIL DAN SEDERHANA

Oleh

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Kes ketidakpatuhan terhadap piawaian Halal (MS1500: 2009) boleh memberi kesan negatif pada keyakinan pengguna Islam, dan menjejaskan keuntungan and reputasi syarikat terbabit. Secara praktikalnya, ketidakpatuhan dikaitkan secara langsung dengan pelaksanaan sistem pengurusan yang tidak berkesan. Ini menunjukkan keperluan untuk mengenal pasti dan mengkaji faktor-faktor kritikal untuk pelaksanaan sistem pengurusan makanan *Halal* yang berkesan. Selain itu, walaupun terdapat seruan dan usaha untuk membangunkan instrumen untuk menilai keberkesanan pelaksanaan sistem pengurusan makanan lain (contoh: keselamatan dan kualiti makanan), setakat ini, instrumen sedia ada untuk konteks Halal adalah terhad. Kajian empirikal mengenai sistem pengurusan makanan Halal sendiri adalah tidak banyak. Untuk memenuhi lompong teori dan praktikal, tujuan utama kajian ini adalah untuk membangunkan instrumen yang boleh menilai keberkesanan pelaksanaan sistem pengurusan makanan Halal bagi syarikat makanan perusahaan kecil dan sederhana (PKS). Kaedah pendekatan campuran berturutan digunakan. Dalam fasa kualitatif, 15 temu bual semi struktur telah dijalankan dengan eksekutif Halal, perunding dan juruaudit dari JAKIM untuk mengenal pasti faktor-faktor kritikal bagi pelaksanaan sistem pengurusan makanan Halal yang berkesan di dalam PKS. Dua eksekutif Halal adalah dari syarikat besar, perspektif mereka diperoleh untuk tujuan penanda aras. Sepuluh tema ditemui; komitmen pengurusan atasan; fokus pengguna; ciri-ciri dan pengurusan pekerja; kerjasama; informasi kapasiti; latihan dan pendidikan; polisi and prosedur; sokongan mencukupi; pemerkasaan personel *Halal* dan pengurusan pembekal. Dalam fasa kedua, penemuan kualitatif ini digunakan dalam pembangunan instrumen. Dalam fasa ketiga, soal selidik telah dijalankan dengan wakil makanan PKS (n=181) untuk menguji dan mengesahkan instrumen yang dibangunkan; 163 respons digunakan untuk analisis akhir. Analisis faktor eksplorasi (EFA) mengekstrak sembilan faktor: pengurusan dan sokongan persekitaran; fokus pengguna; ciri-ciri dan pengurusan pekerja; kerjasama; informasi kapasiti; latihan, polisi dan prosedur; pemerkasaan personel *Halal*; pengurusan pembekal dan penilaian pembekal. Setiap faktor mempunyai kebolehpercayaan dalaman yang boleh diterima (Cronbach alpha = 0.927-0.962). Hasil analisis pengesahan faktor (CFA) membuktikan kesahan tertumpu

(faktor bebanan keseluruhan> 0.7, AVE> 0.5, CR> 0.7) dan kesahan perbezaan (ratio HTMT <0.90). Hasil daripada pemodelan persamaan berstruktur (SEM) mendapati instrumen yang dicadangkan boleh meramal prestasi operasi ($R^2 = 0.757$; $Q^2 = 0.475$) dan kualiti produk ($R^2 = 0.706$; $Q^2 = 0.564$). Keputusan ini menunjukkan bahawa instrumen yang dibangunkan adalah sah dan boleh dipercayai. Ia boleh digunakan oleh syarikat makanan sebagai alat penilaian kendiri. Dengan berbuat demikian, syarikat boleh memilih strategi yang sesuai untuk memperuntukkan sumber mereka, menyediakan sokongan yang diperlukan, dan sekaligus meningkatkan keberkesanan sistem pengurusan makanan Halal mereka. Pembuat dasar boleh menggunakan penemuan ini untuk mengubal dasar dan memperbaiki komponen sistem kawalan makanan halal kebangsaan bagi memudahkan PKS melaksanakan sistem pengurusan makanan halal mereka dengan berkesan. Sebagai salah satu daripada sebilangan kecil kajian yang memberi fokus kepada sistem pengurusan makanan Halal, kajian ini merupakan asas yang boleh membantu penerokaan kajian baru di masa depan.

ACKNOWLEDGEMENTS

In the name of God, most Gracious, most Merciful.

I wish to express my utmost gratitude and heartfelt appreciation to those who have contributed to this thesis and supported me during this journey. First and foremost, I am deeply indebted to my main supervisor, Professor Dr. Russly A Rahman, for his wisdom, reassurance, encouragement, and suggestions. Completing this thesis under his supervision is a great privilege. My sincere thanks also go to the members of my supervisory committee, Associate Professor Dr. Mohhidin Othman and Dr. Ungku Fatimah Ungku Zainal Abidin for their advice and guidance throughout the process. In particular, Associate Professor Dr. Mohhidin for his prompt responses to my numerous enquiries and questions about my research or writing. Also, I owe a great deal of appreciation and gratitude to Dr. Ungku Fatimah for her insightful discussion and meticulous feedbacks. She always goes above and beyond the call of her duty as my co-supervisor, and for that, I cannot thank her enough.

I am very thankful to all the experts and research participants for sparing their time to provide all the required information and feedbacks; without it, this thesis would not have been possible. I also thank friends and juniors who helped me in collecting the data. To my fellow postgraduate colleagues, for their friendship, support, and pleasant environment to study and socialize. Not to forget, HPRI academic and administrative staff for helping me out especially toward the completion of this thesis.

I take this opportunity to sincerely acknowledge the Ministry of Higher Education Malaysia and International Institute for Halal Research and Training (INHART), International Islamic University Malaysia (IIUM) for their financial support. Ministry of Higher Education Malaysia is also responsible in funding this PhD research through the Fundamental Research Grant Scheme (No. 5524577).

I am forever thankful to my life mentor, Associate Professor Wan Nadiah for offering me her advices and words of wisdom. To friends, near and far, your support and encouragement worth more than I can express on paper.

I am grateful to my father, my sisters, my brother, brother-in-law, sister-in-law, cousins and the rest of my family members for their love, prayers, encouragement, and persistent support which often helped me through a rough patch. My father, Ahmad Abdul Rahman for his unwavering trust that I would always be able to complete what I started. My sisters, Hana Ulya and Izzah Az Zahra for continuously being there through my ups and downs. My nieces and nephew, for occasionally taking my mind off the thesis.

Finally, this thesis is dedicated to three beloved persons in my life who were gone too soon. Norsiah Mohamad, my mother, Umi Kalthum Abdul Rahman, my aunt and Maleha Mahmud, my cousin.

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
BRC	British Retail Consortium
CB-SEM	Covariance-Based Structural Equation Modelling
CCP	Critical Control Point
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
CSFs	Critical Success Factors
CVF	Competing Values Framework
EFA	Exploratory Factor Analysis
EFQM	European Foundation for Quality Management
FSMS-DI	Food Safety Management System - Diagnostic Instrument
FSSC	Food Safety System Certification
GHP	Good Hygiene Practices
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
HAS	Halal Assurance System
HDC	Halal Industry Development
HTMT	Heterotrait-Monotrait
IECT	Information, Education, Communication, and Training
JAIN	Jabatan Agama Islam Negeri/State Islamic Religious Department
JAKIM	Jabatan Kemajuan Islam Malaysia/Department of Islamic Development Malaysia)
MAIN	Majlis Agama Islam Negeri/State Islamic Religious Council
MAS	Microbial Assessment Scheme
MeSTI	Makanan Selamat Tanggungjawab Industri certification scheme
MyHAC	Malaysia Halal Analysis Centre
OCAI	Organizational Culture Assessment Instrument
pbuh	peace be upon him
PLS-SEM	Partial Least Squares Structural Equation Modelling
RBV	Resource-Based View
SEM	Structural Equation Modelling
SIRIM	Malaysian Institute of Industrial Research and Standard
IKIM	Institut Kefahaman Islam Malaysia (Institute of Islamic Understanding Malaysia)
SMEs	Small and Medium Enterprises
TDA	Trade Description Act
TQM	Total Quality Management
VIF	Variance Inflation Factor

LIST OF GLOSSARIES

Fatwa	religious ruling
Fatawa	religious rulings, plural for fatwa
Hadith	the compilation of the traditions of the Prophet Muhammad (pbuh)
Halal	Permissible
Haram	Illegal
Ijma'	the consensus of opinion
Ijtihad	a cautious opinion by a Muslim Jurist
Istihsan	juristic preference
Syubhah	something questionable or doubtful
Maslahah	considerations of public interest
Mazhab	school of thought
Muzakarah	Discussion
Najs	Impure
Qiyas	reasoning by analogy
Quran	Muslim Holy Scripture
Sunnah	the life, actions, and the teachings of Prophet Muhammad (pbuh)
Syariah	Islamic laws
Toyyib	good or wholesome

CHAPTER 1

GENERAL INTRODUCTION

1.1 Introduction

This chapter provides an overview of the study background, which provide a deeper understanding of the study context. First, it discusses the growth of global *Halal* food market and how it shapes *Halal* food control system in Malaysia. It then briefly introduces *Halal* standard and certification. The implications of non-compliance toward *Halal* standard requirements is discussed afterward. The research setting, problem statement, research objectives, overview of methodology and the significance of the current study are also highlighted. At the end of the chapter, the organization of thesis chapters is provided.

1.2 Background

1.2.1 Global *Halal* Market

Religion plays one of the most significant roles in food choice in many cultures (Dindyal & Dindyal, 2002; Musaiger, 1993). The influence of religion depends on two factors; the religion itself and the degree of level individuals follow their religion (The Pew Research Center, 2015). Although religions may impose strict dietary laws, some followers differ in observance of these laws: some are strict, while others are more flexible, and few may not care at all (Hussain & Bon, 2015). It is estimated that up to 70% of Muslims worldwide follow the *Halal* food laws (Minkus-McKenna, 2007). For Muslims, Islam is not simply a religion of ceremonies nor rituals but is embraced as a way of life (Riaz & Chaudry, 2004). Adherence to the strict dietary laws, thus, is regarded as one of the ways for Muslims to express their relationship with God and establish their Muslims identity (Campo, 2009).

The strong adherence to *Halal* dietary laws promotes the growth of *Halal* food market. Other critical drivers identified are the economic growth, and the fast-growing of global Muslim population (Dinar Standard & Thomson Reuters, 2016). The Pew Research Centre predicts that the global Muslim population is expected to rise from 1.7 billion in 2014 to 2.2 billion by 2030 (26.4%). The centre also projects that over the next 20 years, the growth rate of global Muslim population to double the rate of the non-Muslim population - an average annual growth rate of 1.5% for Muslims, compared with 0.7% for non-Muslims (The Pew Research Center, 2015).

Muslims globally have spent approximately a total of USD 1.17 trillion on food and beverages in 2015 (see Figure 1.1). This number represented 17% of the global market spend of USD 7 trillion. The Muslim consumer expenditure for food and beverage was ranked first, ahead of China (USD 854 billion), the United States (USD 770 billion),

Japan (USD 380 billion), and India (USD 341 billion). Global *Halal* food market is expected to grow faster than the conventional food market (Eliot Beer, 2014). Figure 1.2 shows the market value of *Halal* foods worldwide from 2017 to 2023. In the next five years (2019-2023), the global *Halal* food market is projected to grow between US$1.7 trillion and US$2.6 trillion.

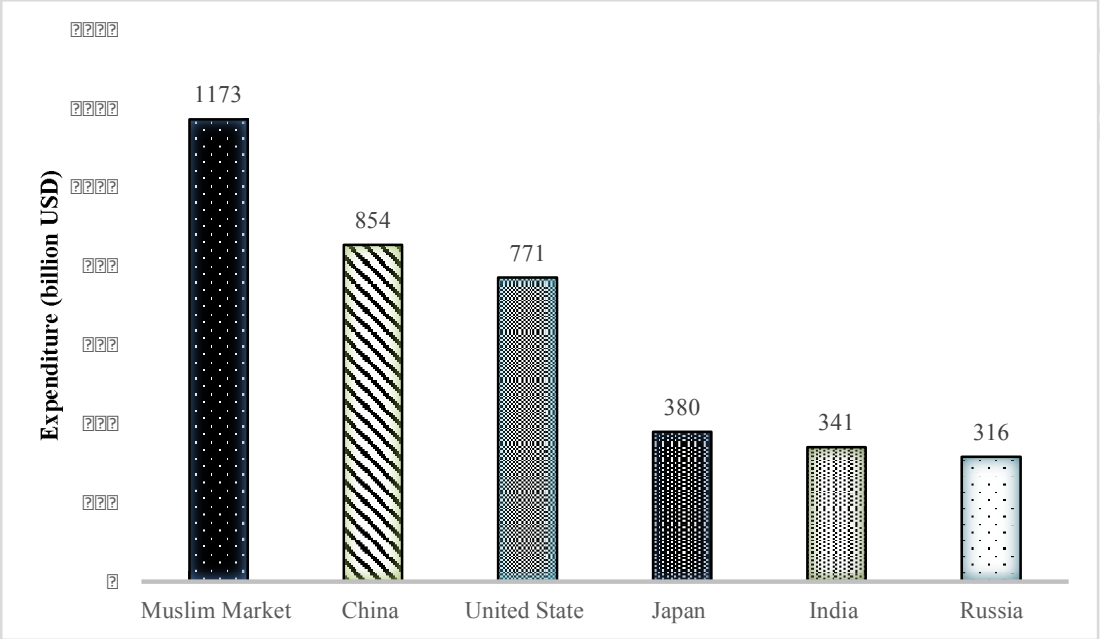

Figure 1.1: Global Muslim Food and Beverage Expenditure Compare to Major Countries

[Source : Dinar Standard & Thomson Reuters (2016, p. 24)]

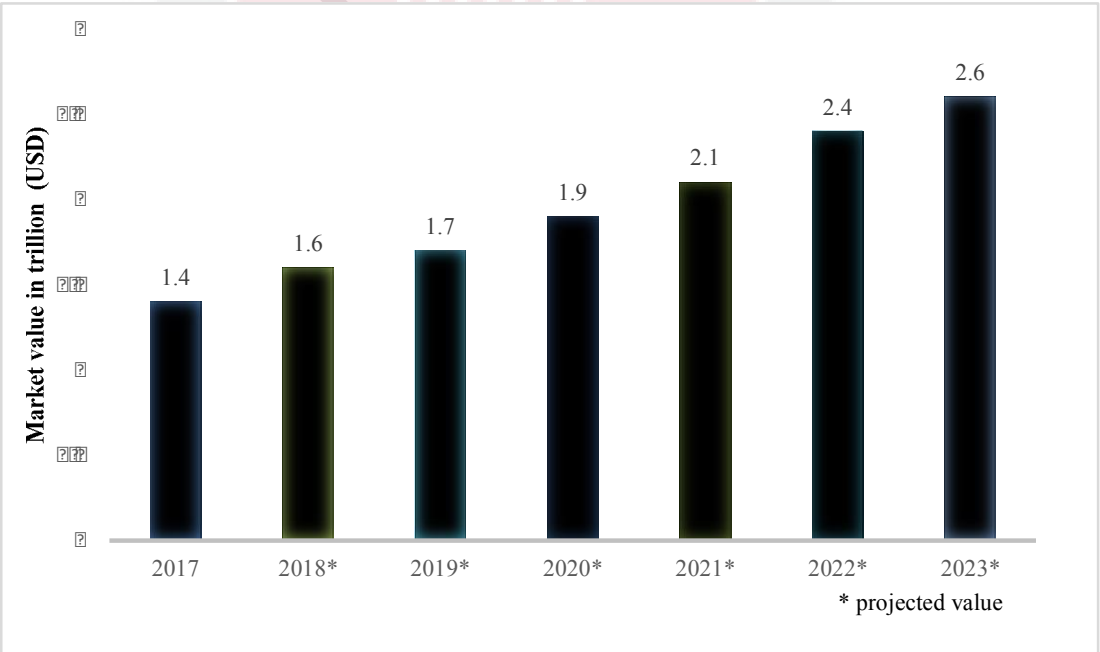

Figure 1.2: Market Value of *Halal* Foods Worldwide (2017 to 2023)

[Source: (Statista, 2018a)]

The potential benefits to be accrued from the global *Halal* market are vast given the strong demand on *Halal* food. There is also a constant demand from some Muslim majorities countries that have to heavily rely on imported foods due to multiple challenges such as arid climate conditions and adverse geographical terrain; preventing them from being highly self-sufficient (Riaz & Chaudry, 2004; Talib, Thoo, & Hamid, 2018). These challenges at the same time, provided opportunities to the exporter's countries. Nowadays, *Halal* has progressed far to become an inclusive engine for economic growth for many countries, including non-Muslim countries. As indicated in Figure 1.3, major *Halal* food exporting countries to Organisation of Islamic Cooperation (OIC) countries in 2015 are all from the non-Muslim countries; Brazil, India, Australia, USA, France.

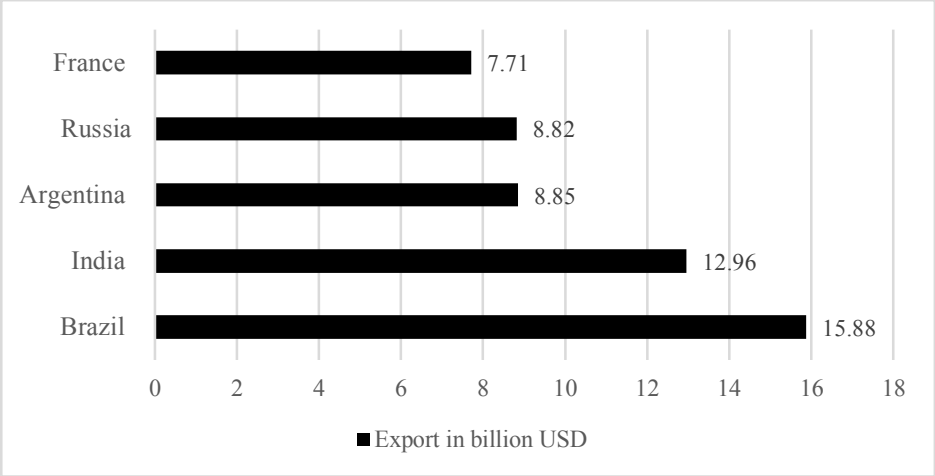

Figure 1.3: Main Exporters of Halal Foods to OIC Countries (2015)
[Source: Statista (2018b)]

Demand for *Halal* food are not only from Muslim majorities countries. There is also steady growth of demand for *Halal* food in non-Muslim majorities countries such as from France, Germany, and the United Kingdom. In United Kingdom, major retail chains, supermarkets and food producers have started offering a broader *Halal* food products assortment to cater both Muslim and non-Muslim consumers (Lever & Miele, 2012). In 2014, it was estimated that European *Halal* market generates about $30 billion annually. According to Technavio (2016), a market research company, the *Halal* food market in Europe is projected to grow at a CAGR of 13.91% during the period 2016-2020.

As the Muslim population, market size and affluence have grown worldwide, many companies are now targeting their products to Muslim consumers. Some companies, however, have a particularly hard time penetrating the market due to their failure to meet *Halal* specifications. Reasons mentioned for non-compliant include food manufacture's obliviousness, confusion and lack of understanding of *Halal* requirements and import regulations (Riaz & Chaudry, 2004). van der Spiegel et al. (2012) point that some common failures include improper use of *Halal* certificates or marks on products (Halal Monitoring Committee, 2009a, 2009b; Hava, 2009), contamination in the production, use of animals that are not slaughtered ritually (Halal Monitoring Authority, 2007; Halal Monitoring Committee, 2009b) and little or no

consideration on animal welfare (Stichting-Dier & Recht, 2010). There is also increasing concern with *Halal* food fraud that has been widely reported over the years. *Halal* food fraud is an example of food certification fraud, whereby products are sold as being certified as fitting a set of guidelines, when in reality that is not the case (Mickey, 2016). A list of cross-contamination and fraud cases related to *Halal* were presented in Table 1.1.

Table 1.1: Cross-contamination and Fraud Cases Related to *Halal*

Year	Location	Item	Contaminant	References
2000	Mexico	Mexico Sausages and burger	Undeclared porcine species meat patties products	Flores-Munguia, Bermudez-Almada,Vazquez-Moreno (2000)
2005	Italy	Horse meat sausages	Pork meat was added fraudulently in Italian horse fresh sausages	Di Pinto, Forte, Conversano, & Tantillo (2005)
2011	Iran	*Halal* meats	Unlawful (adulterated) meats containing poultry, pig, donkey and horse meat	Doosti, Ghasemi Dehkordi, & Rahimi (2011)
2013	South Africa	Minced meat, burger patties, deli meats, sausages and biltong	Detection of porcine DNA in various meat products	Cawthorn, Steinman, & Hoffman (2013)
2013	UK	Meat pies and pastries	Porcine DNA	Whitworth (2013)
2013	UK	Frozen burgers	Porcine DNA	Whitworth (2013)
2013	UK	Lamb burgers	Traces of pork	BBC News, (2013a)
2013	UK	Vaccine	Pork gelatine	BBC News, (2013b)
2013	US	Chicken sandwich	Mislabelled as *Halal*	Trenwith (2013)
2013	China	Homemade food products	Mislabelled as *Halal*	Lipes (2013)
2013	Hungary	Pork tenderloins	Pork tenderloins labelled as beef	RASFF portal (2013)
2013	Portugal	Poultry meat	Possible cross contamination of poultry meat products with pork meat	Soares, Amaral, Oliveira, & Mafra (2013)
2014	EU	Packaged chicken sausages	Mislabelled	Bottaro, Marchetti, Mottola, Shehu, & Pinto (2014)
2014	Turkey	Gelatine products (marshmallow and gumdrops)	Products contain porcine gelatine and labelling failed to indicate the use of pork gelatine	Demirhan, Ulca, & Senyuva (2012)
2015	UK	*Halal* slaughterhouse	Not following *Halal* practices in the slaughtering process	Press Association (2015)
2015	Italy	Chicken sausage	Detection of pork DNA in chicken sausages	Di Pinto et al. (2015)
2015	Malaysia	Slaughterhouse	Not following *Halal* practices in the slaughtering process	Sinar Harian (2015)
2015	Malaysia	Fishballs	Fish ball products mixed with animal blood plasma (including pig)	Farhana (2015)
2016	Spain	Marshmallows, gummies, hard candies and complex	Detection of porcine DNA in commercial candy products candies	Muñoz-Colmenero, Martinez, Roca, & Garcia-Vazquez (2016)
2017	Malaysia	Lamb	Cross contamination of lamb with pork meat	Halim Said (2017)

[Adapted from: Soon, Chandia and Regenstein (2017, p. 40)]

In addition, other challenges for *Halal* market come in the form of food labelling. As various ingredients like emulsions or flavour are not required to be declared on the food labels (Ceranic & Bozinovic, 2009), there is a concern of *Halal* food contamination with pork in the form of emulsifier, gelatine, enzyme, glycerine, and lecithin. In 2006, The Guardian reported that food manufacturers occasionally add pork-derived gelatine to different types of food (Eliot, 2006). These concerns have pushed regulatory authorities worldwide to step up their inspections of food described as *Halal* (Johari, 2010), and the calling for the more effective *Halal* food control system.

1.2.2 Overview of Malaysian *Halal* Food Control System

The complexity of global food production chain and multiple *Halal* food fraud and issues are making Muslim consumers cautious about their food decision making. This prudent attitude is driven by the fact that *Halal* is credence process attribute. As such, individual consumers can hardly evaluate whether the products are *Halal* or not product, even upon or after consumption. This has prompted Malaysian government to develop strategies to protect the integrity of *Halal* products. *Halal* integrity is defined as "the assurance of safe (pure), quality (good) and free from mal-practice (lawful) food from farm to fork" (Soon, Chandia, & Regenstein, 2017, p. 47). In fact, Malaysia is the first country to establish *Halal* related laws and a documented and systematic *Halal* certification program, which started to shape in the early 1970s (Riaz & Chaudry, 2004).

The Malaysian government also foresees the growth of the global *Halal* market as a great potential for promoting local products and *Halal* related services (Talib & Ali, 2009). In order to capitalize the *Halal* global market growth, and establish Malaysia as an international *Halal* food hub, the *Halal* industry development has been integrated into a number of Malaysian national agenda: (1) the second Industrial Master Plan, 1996 – 2005; (2) the National Agriculture Policy, 1998 – 2010; (3) the Ninth Malaysia Plan (9MP), 2006 – 2010; and (4) the Third Industrial Master Plan (IMP3), 2006 – 2020 (Bohari, Hin, & Fuad, 2013). Under the IMP3 for instance, three key performance indexes (KPIs) set to be achieved by 2020 are (1) RM19 billion Halal export revenue (2) 300,000 additional employment in the Halal industry (3) 1,600 SMEs listed as active Halal exporters (Abdul Rahman, Mohammad, Abdul Rahim, & Mohd Noh, 2018).

The government is actively involved in *Halal* certification by legally protects the use of *Halal* terms for product labelling, and appointing government agencies as standard-setting, accreditation body and certification body. In fact, Malaysia has formed a holistic national *Halal* food control system made up of five components: (1) law and regulation; (2) *Halal* food control management; (3) inspection and enforcement; (4) laboratory; and (5) information, education, communication and training (IECT) (Food and Agriculture Organization & World Health Organization, 2003).

The first component that makes up Malaysian *Halal* ecosystem is *Halal* law and regulation. In Malaysia, conventional legal texts (e.g. laws, regulation) and standard

are complemented with *Fatawa* (plural for *Fatwa,*religious rulings), a core component in Islamic laws to form a comprehensive *Halal* law and regulation. *Fatwa* council uses a collective approach through engagement with related field experts to issue religious rulings on the subjects related to modern science, economy and technology (Alahmad & Dierickx, 2012). A *Fatwa* can be issued at the federal level through *Muzakarah* (discussion) of the *Fatwa* Committee, or pass through State *Fatwa* Committees at the state level (Nasohah, 2005). However, a fatwa must be gazetted at the state levels to be enforced and obtain legal status (Schreiber, 2017).

The first *Halal* related law, called the Trade Descriptions Act (TDA) was introduced in 1972. Mandated under the Domestic Trade, Cooperatives and Consumerism Ministry, this law is subjected to company or individual who apply false trade description (e.g. signs, label or other markings) on their products or premises. It also regulates the use of terms such as "*Halal*", "Guaranteed *Halal*" or "Food for Muslim" or in other words and manner, which describes the food or products are suitable for Muslim consumers (Riaz & Chaudry, 2004; Zakaria & Ismail, 2014). In 2011, TDA 1972 is repealed and replaced with TDA 2011 to introduce greater statutory protection and tighter enforcement against false *Halal* trade description. One of the implications of the amendment is an appointment of JAKIM and State Religious Authority (MAIN/JAIN) as the sole and competent *Halal* authorities that can certify any foods, goods or services as *Halal*. Therefore, any food, goods or service shall not be described as *Halal* in Malaysia unless it is certified by JAKIM or MAIN/JAIN (Zakaria, 2008; Zakaria & Ismail, 2014). Additionally, other indirect regulatory and legislative mechanisms to ensure *Halal* include: Food Act 1983, Consumer Protection Act 1999 and Animal Rules 1962.

Two other important components are the "*Halal* food control management" and "inspection and enforcement". The integrity of *Halal* products in Malaysia is assured under multi-agencies lead by JAKIM (HDC, 2016). In multi-agencies approach, the responsibilities for national *Halal* control and enforcement are shared between different ministries (e.g. health, trade) and across government agencies at different levels (federal, state, local). For instance, JAKIM and State Religious Authorities (MAIN/JAIN) are responsible for issuing *Halal* certificates for local and export markets. They are also in-charge in monitoring and enforcing the *Halal* standard and guidelines. JAKIM and State Religious Authorities are mainly supported by *Halal* Industry Development Corporation (HDC), an agency under Ministry of International Trade and Industry. HDC focuses on the development of *Halal* standards, branding and promotion, and commercial development of *Halal* products and services. Ministry of Domestic Trade, Co-operatives and Consumerism co-operate with JAKIM/JAIN/MAIN to consistently conducts inspections to ensure the authenticity of the *Halal* expressions used in the industry. As food safety and quality is a great part of *Halal* food control, Ministry of Health plays an integral part in *Halal* food control. Several other government agencies also involved directly and indirectly in the national *Halal* food control. These agencies are the Ministry of International Trade and Industry, the Department of Standards Malaysia, the Department of Veterinary Services, the Royal Malaysian Customs Department and the Local Authorities (Wahab et al., 2015).

Another important component is *Halal* laboratory. Malaysia is among few countries that prove the absence of *Haram* ingredients through laboratory analysis to demonstrate compliance with *Halal* requirements (van der Spiegel et al., 2012). To ensure competency of laboratories to provide consistent and accurate results, analysis for *Halal* certification are required to be carried out at government laboratories with ISO/IEC 17025:2005 (JAKIM, 2014). The Department of Chemistry (DOC) is the official laboratory for *Halal* control. However, both the Department of Chemistry and Ministry of Health are overwhelmed with other responsibilities that do not allow them to focus on *Halal* matters. As an effort to facilitate the validation and certification process, Malaysia *Halal* Analysis Centre (MyHAC) is developed. MyHAC is expected to be a one-stop centre for industrial research and *Halal* certification (Salama, 2015). Currently, the capacity building (e.g. development of methodology and standard of procedure for analysis) is still on-going. To support the assessment of *Halal* certification, *Halal* panel laboratories (HPL) are also appointed on a temporary basis to conduct the samples analysis. These laboratories are responsible for ensuring compliance towards the established testing management criteria to maintain sample integrity, and to ensure that analysis methods used meet the specified conditions and criteria. Three appointed HPL are Unipeq, Halvec Laboratories and ALS Technichem (JAKIM, 2018). One of the appointed HPL, Unipeq, for example, meet the requirements of the ISO/IEC 17025:2005 accreditation for porcine DNA and alcohol tests (UNIPEQ, 2018).

Halal education, communication, and training (IECT) is the fifth component of the national *Halal* food control system. In *Halal* context, IECT is imperative to raise awareness among consumers in order to improve their *Halal* knowledge and help them to make informed decisions about their food purchasing; to promote the adoption of *Halal* certification by the food industry; and to obtain information from different stakeholders (e.g. consumers, consumers association, food industry) to support policy makers in the decision-making, planning and implementation of *Halal* policies. Public and private partners in the state, federal, industry, and universities work together to develop and strengthen the IECT element. Example of few developed strategies include, the establishment of Global *Halal* Support Centre in 2012 for the dissemination of *Halal* knowledge and information for *Halal* stakeholders (government, business, and consumer); and the development of professional training modules to implement food standards, certification programs, and quality assurance schemes for food industry associations and food enterprises. The professional training modules are intended to ensure practitioners have a full understanding of facades needed to support the growing *Halal* industry. For example, *Halal* Executive Program Training (HEP) module was developed to fulfil the needs for trained human resources in the *Halal* certified companies. *Halal* executives as the industry professionals need to understand the tools, principles, and sources of knowledge that Islamic scholars use to derive fatwa to solve the *Halal* issues in their organisation (Rafida, Alina, Syamsul, Mashitoh, & Yusop, 2013). At the same time, these executives need to ensure that their companies comply to the MS1500:2009. All the above *Halal* food control elements are interconnected in establishing an ecosystem for the effective *Halal* certification program. It is important to note that beyond the comprehensive elements of national *Halal* food control, self-control, or management system implemented by the industry remain a major cornerstone of consumer protection (Deflorin, 2014).

1.2.3 Issues in *Halal* Food Certification

The globalization of food commodities, as well as the extensive and complex modern food chain have compelled Muslim consumers to rely on *Halal* certification, labelling or logo as another form of assurance (van der Spiegel et al., 2012). *Halal* certification in Malaysia is issued by Department of Islamic Development Malaysia (JAKIM) and other government agencies such as State Islamic Religious Department (JAIN) and State Islamic Religious Council (MAIN). To further strengthen Malaysian *Halal* certification, in 2000, *Halal* standard MS1500 – General guidelines on the production, preparation, handling and storage of *Halal* food was developed. To ensure the standard remain relevant and suitable to be implemented by the companies, this standard is reviewed every five years and revised (if necessary) (Department of Standards Malaysia, 2018). MS 1500 was first revised in 2004. The subsequent revision was in 2009. In general, MS1500:2009 specifies the minimum requirements at all stages of production and supply chain including procurement of raw materials and ingredients, logistics and transportation, packaging and labelling (Department of Standards Malaysia, 2009). Currently, the revision is ongoing for MS1500:2009 (Department of Standards Malaysia, 2018). Similar to other standard, the revision of MS1500 is expected to consolidate the recent *Halal* issues and challenges to ensemble the present industry's landscape.

The implications of the revoking *Halal* certification and recalling products are tremendous for both *Halal* consumers and industry. In Malaysia, there is a tendency for media to highlight companies that are allegedly violating the *Halal* requirements (Fischer, 2015). This fast becoming a serious national issue especially in the age whereby negative word of mouth has begun to proliferate wider and faster due to the globalization of news through TV, internet, and text message (Hoorfar, Jordan, Butler, & Prugger, 2011). In fact, Malaysian consumers also tend to use social network outlets to denounce brands that fail to meet *Halal* standards (Abd Rahman, Singhry, Hanafiah, & Abdul, 2016).

Extensive media coverage of food scares can intensify risk perception and amplify its consequences. These typically lead to a decline in demand for the affected product; a detrimental economic consequence for food companies (McCluskey & Swinnen, 2011). For example, due to possible porcine contamination of the Golden Churn butter produced in New Zealand in 2011, approximately MYR 5 million canned butter from the Malaysian market had been recalled. This negatively affected the Sarawak layered cake *(kek lapis*) industry as well – as Golden Churn Butter is one of the main ingredients in many products. The Sarawak layered cake industry reported an 80% drop in sales from August 2011 to January 2012 (The Star, 2012). The long-term reputational damage to companies' brand can have an even steeper price. In 2006, Silver Bird's factory was ordered to shut down for two weeks after it was discovered using non-*Halal* cooking oil and operating in unhygienic conditions. For the first quarter ended Jan 31, 2007, Silver Bird reported a net loss of MYR 18.25 million (Finance Twitter, 2007). The company never fully recover and has confirmed it has closed down its operations in 2016 (Yuan, 2016).

There are still many cases of non-compliance toward *Halal* standard reported despite its severe consequences for a food company. In the cases of serious offence toward *Halal* procedure, JAKIM could either suspend or withdraw the company's *Halal* certification and recall the affected products (JAKIM, 2011). From 1982 to 2008, about 40 non-compliance cases with MS1500: 2004 were reported (Daud, Din, & Bakar, 2011). Since the second revision of MS 1500 in 2009, multiple issues and challenges related to *Halal* have emerged which prompting the need to revise the MS 1500: 2009. For instance, there was a drastic rise in non-compliance cases discovered, as within less than two years (2010 – March 2012), JAKIM has recalled 39 products. According to JAKIM (2014), in general, products are recalled from market due to possible contamination of haram material. In the same period, the authority has also revoked the *Halal* status of 10 hotels, food premises, and one slaughterhouse (JAKIM, 2012). In 2013, small, large and serious mistakes were found in 126 out of 1437 inspection cases conducted by JAKIM (Othman, Shaarani, & Bahron, 2016). In addition to previous reports by JAKIM, more recent cases on non-compliance of the *Halal* standard by food producers were found in mainstream newspapers (New Straits Times, 2013, 2014; The Straits Times, 2015). For instance, in 2017, JAIN raided a slaughterhouse in Semenyih and seized 1,098 packets of chicken that were not properly slaughtered according to *Halal* slaughter procedure described in the standard (Zaini, 2017). As such, MS 1500: 2009 revision is important to provide industry proper guidance to effectively implement the standard.

Cases of *Halal* standard violation are not only confined to Malaysia. In Indonesia, a major scandal in 2001 related to Ajinomoto used to trigger public concerns. The Japanese company admitted that they had substituted beef derivative with pork derivative *bactosoytone* to reduce their production cost. *Bactosoytone* actually is a medium for bacterial growth to produce important enzymes in monosodium glutamate (MSG) production. In the aftermath of the scandal, public apology was issued, and few company's employees were arrested. The scandal also appeared to undermine the credibility of MUI, the certification body responsible to certify Ajinomoto's products (Fischer, 2015). In another instance, the Indonesian Food and Drug Monitoring Agency (BPOM) revoked the export permit of four South Korean companies Nongshim, Ottogi, U-Dong and Samyang after traces of porcine DNA were found in their instant noodle's products in June 2017. This recent debacle also affected the sale of other *Halal*-certified instant noodles from South Korea (Tan, 2017).

Failure to achieve the standard requirements is not unique to *Halal* certification. For example, there are many cases reported worldwide where companies are unable to control or eliminate hazards despite having food safety management system in place (Kafetzopoulos & Psomas, 2013; Lowe, 2008; Manning, 2007). As a reference, a management system is defined as "the way in which an organization manages the inter-related parts of its business in order to achieve its objectives" (ISO, 2017). The objectives can be based on different subjects including food safety, quality and halal food. Industry could lose millions of dollars from a single foodborne outbreak case due to loss of revenue, charges, penalties, legal fees, cost of inspection and staff retraining (Bartsch, Asti, Nyathi, Spiker, & Lee, 2018). Scholars argue that it is not the management system that is to blame but the approaches and inadequate implementation of the system which are likely to cause the failure (Adams, 2002; Yasmine Motarjemi & Käferstein, 1999). Certifying the food safety management

system does not guarantee the optimum level of food safety hazards, or the absolute food safety and quality of the end product (Fotopoulos, Kafetzopoulos, & Psomas, 2009). The food safety management system can avoid food scandal or crisis only if the companies' system is effectively implemented (Wallace, Powell, & Holyoak, 2005a).

Similarly, in quality certifications, fulfilling only minimal standard requirements is not sufficient for the company. According to Rodríguez-Escobar, Gonzalez-Benito, and Martínez-Lorente (2006), ISO 9001 certificate is an indicator that a company has quality management system in place, but it provides not guarantee that the system implemented by the company is working properly. One of the causes of this problem is the tendency for companies to pursue certification only to satisfy external stakeholders than to seek for internal improvements (Jones, Arndt, & Kustin, 1997). In addition, there are also other external and internal factors affecting the effectiveness of management systems implementation such as company's resources, top management, employee, education and training, process, supplier. Research on factors for effective implementation of management system is vital to help companies identify intervention strategies to improve their overall system performance (Taylor & Taylor, 2004). In addition, many researchers have also suggested the need to develop an instrument to assess the effectiveness of food quality and safety systems implementation (Cormier, Mallet, Chiasson, Magnusson, & Valdimarsson, 2007; van der Spiegel, Luning, Ziggers, & Jongen, 2005) that is not only based on the outbreak data (Wallace, Powell, & Holyoak, 2005b). To address these issues, multiple studies have been conducted to study the critical factors, and to develop and validate the effectiveness instruments in food safety and quality context (Kafetzopoulos & Psomas, 2013; Kirezieva, Jacxsens, Uyttendaele, Van Boekel, & Luning, 2013; Psomas, Kafetzopoulos, & Fotopoulos, 2013; Ren, He, & Luning, 2016; van der Spiegel et al., 2005).

Similarly, identification of critical factors and assessment are also required for effective *Halal* food management system. Food companies need to understand that obtaining *Halal* food certification solely for marketing purpose would not only result in unsustainable business operations but also compromise the status of *Halal* food products and consumers' trust (Talib, Ai Chin, & Fischer, 2017). Effective *Halal* food management system on the other hand is often associated with better organisational performance. Multiple publications have linked *Halal* certification implementation with multiple external and internal benefits (Abdul, Ismail, Hashim, & Johari, 2009; Aziz & Chok, 2013; Marzuki, Hall, & Ballantine, 2012b; Nawi, Izati, & Nasir, 2016; Noordin, Md Noor, Hashim, & Samicho, 2009; Noordin, Md Noor, & Samicho, 2014; Talib, Abdul Hamid, & Chin, 2016; Tieman, 2012). Some benefits mentioned include ease market entry; market expansion and growth; increase number of customers; enhanced consumer confidence and satisfaction; affects customer decision; customer retention; increase revenue and sale; better management; logistics performance; and financial performance. However, except for very few publications (Abd Rahman et al., 2017; Badruldin et al., 2012; Marzuki et al., 2014; Talib, Hamid, & Chin, 2015), associations between *Halal* certification implementation and organisational performance were not established through empirical studies.

Although *Halal* certification is a crucial matter in the food industry (Bonne & Verbeke, 2008; Nasir & Pereira, 2008), limited literature is available on *Halal* certification and its management system. Common topics in earlier studies are on consumerism issues, such as consumer purchase intention (Aziz & Chok, 2013), consumer confidence (Mohamed, Shamsudin, & Rezai, 2013), consumer behaviour (Shah Alam & Mohamed Sayuti, 2011), and consumer intention to pay (Verbeke, Rutsaert, Bonne, & Vermeir, 2013). In recent years, there has been a growing number of publications focusing on *Halal* management system from the manufacturers perspective (Othman, Md. Shaarani, & Bahron, 2017; Talib et al., 2017; Talib, Hamid, & Chin, 2015; Talib, Sawari, Hamid, & Thoo, 2016). However, there are only a few that specifically discuss the critical factors of effective *Halal* food management system implementation, as well as its association to organisational performance. In addition, relatively little is known about the availability of instrument to measure the effectiveness of *Halal* food management system implementation.

1.2.4 Justification of Research Setting

The *Halal* industry is an important contributor to Malaysian economy. The industry is anticipated to contribute about 8.5% to the country's Gross Domestic Product (GDP) by 2020 (The Sun Daily, 2015). As shown in Figure 1.4, the *Halal* export value has significantly increased within seven years period (2011 to 2017). The current value of Malaysia's exports of *Halal* products is MYR 43.4 billion (Jamny Rosli, 2017). Malaysian small and medium enterprises (SMEs) help generated RM3.8 billion *Halal* exports while cottage industries contributed approximately RM1.5 billion (Arif Shah, 2016).

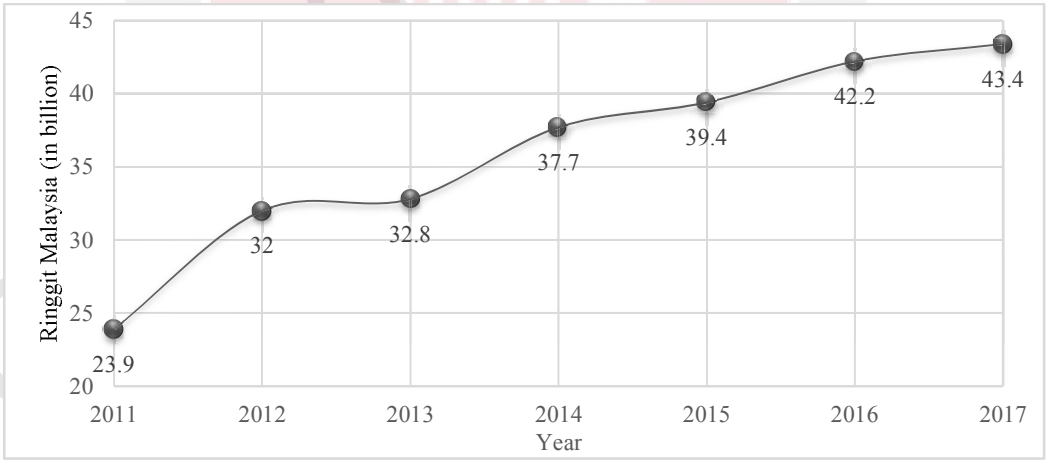

Figure 1.4: *Halal* Export Value (2011-2017)
[Source adapted from (MITI, 2017) and Jamny Rosli (2017)]

The major contribution of Malaysian *Halal* export comes from the food industry (Nasa, 2017). At the global level, the food sector makes up over 60% of the total *Halal* products market. This vast market percentage is not surprising given the high level of awareness about *Halal* food. The Malaysian food industry encompasses sectors such as cocoa and chocolate products, fishery products, cereals and cereal products, processed fruits and vegetables, confectionery, food ingredients, herbs and spices,

beverages, animal feed, and others. It is dominated by small and medium enterprises (SMEs) that make up more than 80% of the total food companies (Khairy & Domil, 2011). In Malaysia, SMEs for the manufacturing sector are defined as firms with sales turnover not exceeding MYR 50 million or a number of full-time employees not exceeding 200 (SME Corp Malaysia, 2017). Detailed definitions of SMEs in Malaysia are described in Figure 1.5. Over the years, the number of MS 1500:2009 certified companies have increased significantly (Talib, Thoo, & Hamid, 2018). As of 2016, *Halal* Industry Development Corporation (2016) reported that there are about 2504 *Halal*-certified companies, including micro (1,120), small and medium (2155) as well as large or multinational companies (840).

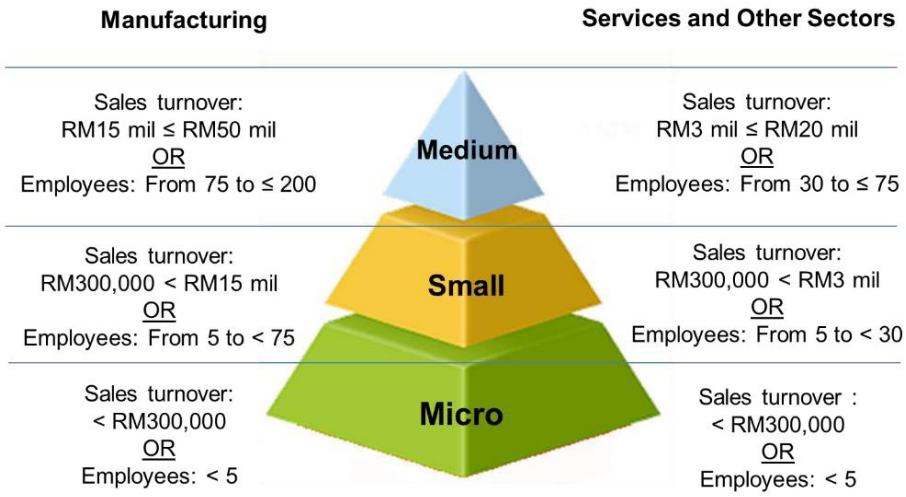

Figure 1.5: Definitions of SMEs in Malaysia
[Source: SME Corp Malaysia (2017)]

Although SMEs contribute significantly to the most countries' economies, they are more likely to face intense challenges in establishing effective management system due to a lack of resources, competencies and diseconomies of scale (Aggelogiannopoulos, Drosinos, & Athanasopoulos, 2007; Antony, Kumar, & Madu, 2005; Karapetrovic, Rajamani, & Willborn, 1997; Karipidis, Athanassiadis, Aggelopoulos, & Giompliakis, 2009; Lo & Humphreys, 2000; Yapp & Fairman, 2006). There are also significant differences between SMEs and large manufacturers in term of structure, policy-making procedures, resource utilization, staff patterns, culture and support (Welsh & White, 1981). Moreover, according to Semos and Kontogeorgos (2007), Küpper and Batt (2009) and Aggelogiannopoulos et al. (2007), insufficient information, support, guidance, as well as the commitment of top management and employee, instill incredulity in the overall effectiveness of SMEs management system implementation.

Maintaining any management system requires ongoing resource commitments, this may be one of the reasons why Murphy (2016) found that SMEs' commitment to quality improvement often decrease after adopting the standard. This conclusion is based on 25 years (1990-2014) of review in SME's quality management studies.

Similarly, Sun and Cheng (2002) found that compared to large companies, quality management system implementation in SMEs are less effective. According to Gellynck, Dora and Molnar (2010), most of the European food SMEs tend to discontinue their quality improvement practices. The authors added that the lack of sustainability in quality improvement among SMEs is due to the changed in focus and management commitment. Another study conducted by Ilkay and Aslan (2012) also found that no improvement in performance were observed in most ISO 9001 certified Turkish SMEs, indicating the need for these SMEs to effectively implement their quality management system.

According to Violaris, Bridges, & Bridges (2008), the size of business is the best indicator of effective food safety management system implementation. They found that the small business studied are lagging in ensuring food safety due to financial constraints. The impacts of food safety incident are inherently more severe for SMEs as they are at greater risk to recover from a food safety incident (Hussain & Dawson, 2013). According to Angeli, Apostolou, Pouvali, & Olympiou (2009), SMEs are facing problems in implementing standard and regulations, particularly when resources (e.g. infrastructure and additional employment) are involved. As *Halal* food management system implementation also require resources and competent employees, *Halal* certified SMEs may face extra challenges to ensure the effectiveness of their system. Issues of ineffective implementation of the management system among SMEs indicates the need for more studies in this context (Dora, Kumar, Van Goubergen, Molnar, & Gellynck, 2013a; Psomas, Fotopoulos, & Kafetzopoulos, 2010).

1.3 Problem Statement

The implication for companies' failure to achieve standard requirements or revocation of *Halal* certification could be enormous, for the company itself and *Halal* food industry as a whole. In general, the failure to achieve the management system to avoid foodborne disease outbreak or improve quality performance in the company is mainly attributed to the inadequate or ineffective implementation of the system itself. Numerous studies in food safety and quality management system have highlighted the importance of understanding the critical factors to make sure the effectiveness of the management system implementation is fully achieved (Chen, Flint, Perry, Perry, & Lau, 2015; Escanciano & Santos-Vijande, 2014; Eves & Dervisi, 2005; Maldonado-Siman, Bai, Ramírez-Valverde, Gong, & Rodríguez-de Lara, 2014; Nguyen, Wilcock, & Aung, 2004b; Eunice Taylor & Kane, 2005; Teixeira & Sampaio, 2013; Tomašević et al., 2013). Many authors also argue the need for a diagnostic instrument to assess the effectiveness of the management system implementation in food safety and quality context (Kafetzopoulos & Psomas, 2013; Kirezieva, Jacxsens, et al., 2013; Psomas, Kafetzopoulos, et al., 2013; Ren et al., 2016; van der Spiegel et al., 2005). A similar argument can be applied to *Halal* food management system context.

The study on critical factors and instrument development and validation is especially important for SMEs food companies who may face multiple challenges in term of resources, insufficient information, support, guidance, lack of top management support, lack of employee's commitment and competencies, inadequate policy-making

procedure and culture to effectively implement their *Halal* food management system. Some studies also found that quality and food safety management system implementation are more likely to be less effective in SMEs compared to large companies (Ilkay & Aslan, 2012; Murphy, 2016; Sun & Cheng, 2002; Violaris et al., 2008). As the vast majority of Malaysian food businesses is SMEs, study focussing on this context is important. SMEs are also one of the main drivers toward Malaysian aspiration to become the global *Halal*. In fact, under the IMP3, one of the three key performance indexes (KPIs) set to be achieved by year 2020 is to list 1,600 SMEs as active *Halal* exporters. A failure on SMEs' part to effectively implement *Halal* food management system food products will lead to failure to deliver *Halal* and safe food, and subsequent loss in consumer confidence and market share. In addition, there has been limited empirical studies that assess the association between *Halal* food management system implementation and organisational performance, especially in SMEs context.

1.4 Objectives of the Study

This study mainly seeks to develop and validate an instrument that assesses the effectiveness of *Halal* food management system implementation within the context of SMEs food companies in Malaysia. The specific objectives (s) are:

i. to conduct an exploratory investigation of the constructs of the critical factor in *Halal* food management system among SMEs food companies in Malaysia
ii. to develop an instrument based on the qualitative findings
iii. to evaluate the reliability and validity of the developed instrument
iv. to assess the relationship between the *Halal* food management system critical constructs and organisational performance (operational performance and product quality)

1.5 Overview of Methodology

A sequential mixed-methods approach has been devised to achieve the research objectives. This approach provides a systematic method for researchers seeking to develop a new instrument or adapt an instrument for a new context (Creswell & Clark, 2011). The exploratory mixed-methods approach for instrument development was conducted in three phases: an initial qualitative, an instrument development phase, and a quantitative survey. Figure 1.6 presents the mixed-methods procedural diagram for the study.

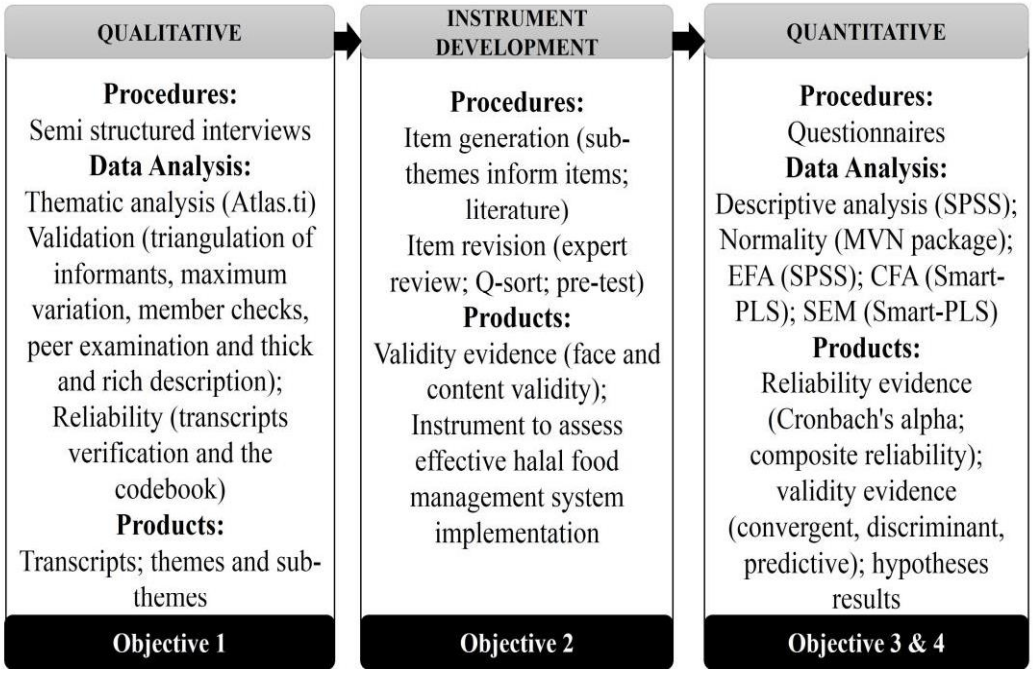

Figure 1.6: Overview of Sequential Mixed-Methods Approach

1.6 Significance of the Study

In general, this study provides insights that contribute to a better understanding of *Halal* food management system implementation. From the academic perspective, this study fills the gap in the literature by extending the body of knowledge through the exploration of the critical factors that affect the effectiveness of *Halal* food management system implementation. The present study is also one of the earliest studies to develop an instrument and assess the effectiveness of *Halal* food management systems implementation for SMEs food companies. It can also contribute to the development of research related to *Halal* food management system.

As a managerial tool, the instrument will give the food companies information to improve a specific activity or element in the *Halal* food management system implementation. As such, the companies can decide to add, improve or sustain their management activities. Consequently, the companies can identify the strengths and weaknesses of their *Halal* food management system, and based on strategic decisions, an appropriate action plan can be developed either by maximize strengths or minimize weaknesses to improve the overall *Halal* and *Toyyib* aspects of their products.

This study also has some practical implications for the *Halal* policymakers and training provider. The findings provide *Halal* policymakers with an indication of the areas that should be addressed to help SMEs food companies to effectively implement their *Halal* food management system. Additionally, external *Halal* training providers could also incorporate the critical constructs found in this study into their module; this may help *Halal* food professionals to better understand the key elements for effective *Halal* food management implementation.

1.7 Thesis Structure

This thesis consists of six chapters. Figure 1.7 presents the overview of the thesis structure. Chapter One presents the background of the research, problem statement, objectives, overview of the methodology and significance of the study. Chapter Two provides the broad overview of *Halal* food certification, and management system. It also presents the literature review of the management system, specifically in *Halal*, food safety and quality context. Chapter Three presents the qualitative phase of the study; this includes the methodology, results and discussion. Chapter Four consist of two parts, the instrument development and validation parts. It also details the methodology and data analysis of the quantitative phase, and end with results and discussion. Chapter Five follows on the work presented in Chapter Four, it further explains the association between *Halal* food management implementations constructs and performance constructs. Finally, Chapter Six provides the summary of the study, re-iterates the significance, limitation of this study and offers suggestions for future work.

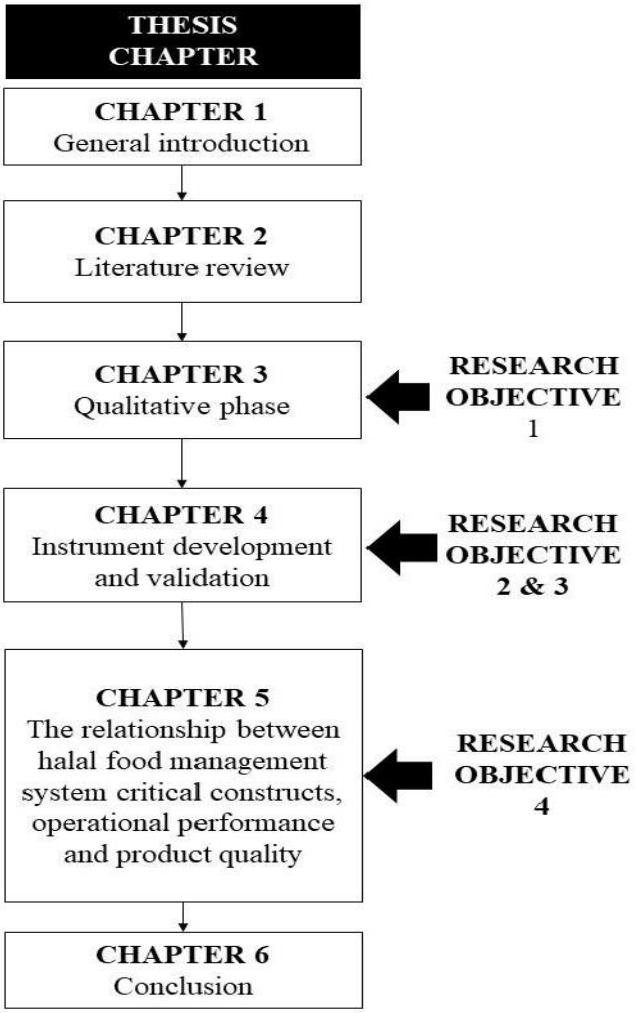

Figure 1.7: The Structure of Thesis

REFERENCES

Ab Wahid, R. (2010). *Beyond certification: The maintenance of ISO 9000 in Malaysian service organisations. (PhD Thesis)*. University of Waikato, New Zealand.

Abd Rahman, A., Singhry, H. B., Hanafiah, M. H., & Abdul, M. (2017). Influence of perceived benefits and traceability system on the readiness for halal assurance system implementation among food manufacturers. *Food Control*, *73*, 1318–1326. https://doi.org/10.1016/j.foodcont.2016.10.058

Abdul, M., Ismail, H., Hashim, H., & Johari, J. (2009). SMEs and halal certification. *China-USA Business Review*, *8*(4), 70.

Abdul Rahman, N. A., Mohammad, M. F., Abdul Rahim, S., & Mohd Noh, H. (2018). Implementing air cargo halal warehouse: insight from Malaysia. *Journal of Islamic Marketing*, *9*(3), 462–483. https://doi.org/10.1108/JIMA-09-2016-0071

Adam, E. E., Corbett, L. M., Flores, B. E., Harrison, N. J., Lee, T. S., Rho, B. H., … Westbrook, R. (1997). An international study of quality improvement approach and firm performance. *International Journal of Operations & Production Management*, *17*(9), 842–873. https://doi.org/https://doi.org/10.1108/01443579710171190

Adams, C. E. (2002). Hazard analysis and critical control point—original "spin." *Food Control*, *13*, 355–358.

Afifi, A. H. (2014). Consumer protection of halal products in Malaysia: a literature highlight. *Procedia - Social and Behavioral Sciences*, *121*, 22–28. https://doi.org/https://doi.org/10.1016/j.sbspro.2014.01.1109

Aggelogiannopoulos, D., Drosinos, E. H., & Athanasopoulos, P. (2007). Implementation of a quality management system (QMS) according to the ISO 9000 family in a Greek small-sized winery : A case study. *Food Control*, *18*, 1077–1085. https://doi.org/10.1016/j.foodcont.2006.07.010

Agus, A., & Sagir, R. M. (2001). The structural relationships between total quality management, competitive advantage and bottom line financial performance: An empirical study of Malaysian manufacturing companies. *Total Quality Management*, *12*(7–8), 1018–1024. https://doi.org/https://doi.org/10.1080/09544120100000029

Ahire, S., Golhar, D., & Waller, M. (1996). Development and validation of TQM implementation constructs. *Decision Sciences*, *27*(1), 23–56. https://doi.org/10.1111/j.1540-5915.1996.tb00842.x

Ahire, S., & O'Shaughnessy, K. C. (1998). The role of top management commitment in quality management: an empirical analysis of the auto parts industry. *International Journal of Quality Science*, *3*(1), 5–37. https://doi.org/10.1108/13598539810196868

Ahmed, A. (2008). Marketing of halal meat in the United Kingdom – supermarkets versus local shops. *British Food Journal*, *110*(7), 655–670. https://doi.org/10.1108/00070700810887149

Al-Mazeedi, H. M., Regenstein, J. M., & Riaz, M. N. (2013). The issue of undeclared ingredients in halal and kosher food production: a focus on processing aids. *Comprehensive Reviews in Food Science and Food Safety*, *12*(2), 228–233. https://doi.org/10.1111/1541-4337.12002

Al-Nakeeb, A. A. R., Williams, T., Hibberd, P., & Gronow, S. (1998). Measuring the effectiveness of quality assurance systems in the construction industry. *Property Management*, *16*(4), 222–228. https://doi.org/10.1108/02637479810243437

Al-Qaradawi, Y. (1985). *The lawful and the prohibited in Islam*. Indianapolis: American Trust Publication.

Alahmad, G., & Dierickx, K. (2012). What do Islamic institutional fatwas say about medical and research confidentiality and breach of confidentiality? *Developing World Bioethics*, *12*(2), 104–112. https://doi.org/10.1111/j.1471-8847.2012.00329.x

Albers Mohrman, S., Tenkasi, R. V., Lawler, E. E., & Ledford, G. E. (1995). Total quality management: practice and outcomes in the largest US firms. *Employee Relations*, *17*(3), 26–41. https://doi.org/10.1108/01425459510086866

Alfadl, A. A., Mohamed Ibrahim, M. I., & Ahmad Hassali, M. A. (2013). Scale development on consumer behavior toward counterfeit drugs in a developing country: a quantitative study exploiting the tools of an evolving paradigm. *BMC Public Health*, *13*, 829. https://doi.org/https://doi.org/10.1186/1471-2458-13-829

Ali, F. (2016). Hotel website quality, perceived flow, customer satisfaction and purchase intention. *Journal of Hospitality and Tourism Technology*, *7*(2), 213–228. https://doi.org/10.1108/JHTT-02-2016-0010

Ali, F., Hussain, K., Konar, R., & Jeon, H. M. (2017). The Effect of Technical and Functional Quality on Guests' Perceived Hotel Service Quality and Satisfaction: A SEM-PLS Analysis. *Journal of Quality Assurance in Hospitality and Tourism*, *18*(3), 354–378. https://doi.org/10.1080/1528008X.2016.1230037

Ali, M. H., Tan, K. H., Suleiman, N., & Alam, S. (2017). The traction of lean production on halal food integrity. *MOJ Food Processing & Technology*, *5*(4), 00136. https://doi.org/10.15406/mojfpt.2017.05.00136

Alolah, T., Stewart, R. A., Panuwatwanich, K., & Mohamed, S. (2014). Determining the causal relationships among balanced scorecard perspectives on school safety performance: Case of Saudi Arabia. *Accident Analysis and Prevention*, *68*, 57–74. https://doi.org/10.1016/j.aap.2014.02.002

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, *14*(1), 33–46. https://doi.org/10.1002/smj.4250140105

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411–423. https://doi.org/10.1037/0033-2909.103.3.411

Anderson, J. C., Rungtusanatham, M., & Schroeder, R. G. (1994). A theory of quality management underlying the Deming management method. *The Academy of Management*, *19*(3), 472–509. https://doi.org/10.5465/AMR.1994.9412271808

Anderson, R. D., Jerman, R. E., & Crum, M. R. (1998). Quality management influences on logistics performance. *Transportation Research Part E: Logistics and Transportation Review*, *34*(2), 137–148. https://doi.org/https://doi.org/10.1016/S1366-5545(98)00008-8

Angeli, I., Apostolou, N., Pouvali, M., & Olympiou, A. (2009). Quality, environmental and food safety management systems: similarities and deficiencies. A case study of three national surveys in Cyprus. In *5th International Working Conference: Total Quality Management*. Serbia.

Annear, M. J., Toye, C. M., Eccleston, C. E., McInerney, F. J., Elliott, K. J., Tranter, B. K., … Robinson, A. L. (2015). Dementia knowledge assessment scale: development and preliminary psychometric properties. *Journal of the American Geriatrics Society*, *63*(11), 2375–2381.

Antony, J., Kumar, M., & Madu, C. N. (2005). Six sigma in small and medium sized UK manufacturing enterprises. *International Journal of Quality & Reliability Management*, *22*(8), 860–874. https://doi.org/10.1108/02656710510617265

Arasli, H. (2012). Towards business excellence in the hospitality industry: A case for 3-, 4-, and 5-star hotels in Iran. *Total Quality Management & Business Excellence*, *23*(5–6), 573–590. https://doi.org/10.1080/14783363.2012.669539

Arcury, T. A., Estrada, J. M., & Quandt, S. A. (2010). Overcoming language and literacy barriers in safety and health training of agricultural workers. *Journal of Agromedicine*, *15*(3), 236–248. https://doi.org/10.1080/1059924X.2010.486958.Overcoming

Arif, S., & Sidek, S. (2015). Application of halalan tayyiban in the standard reference for determining Malaysian halal food. *Asian Social Science*, *11*(17), 116–129. https://doi.org/10.5539/ass.v11n17p116

Armanios, F. (2004). *Islam: Sunnis and Shiites*. Retrieved from https://digital.library.unt.edu/ark:/67531/metacrs6025/m1/1/high_res_d/RS21745_2004Feb23.pdf

Arni Basir, S., Davies, J., & Rudder, A. (2011). The elements of organizational culture which influence the maintenance of ISO 9001: A theoretical framework. *African Journal of Business Management*, *5*(15), 6028–6035. https://doi.org/10.5897/AJBM10.425

Arpanutud, P. (2015). Implementation of food safety management system in Thai small and medium food processing enterprises: Institutional and resource dependence perspective. *Journal of Public and Private Management*, *22*(2), 175.

Retrieved from https://www.tci-thaijo.org/index.php/ppmjournal/article/view/45836/37909

Arpanutud, P., Keeratipibul, S., Charoensupaya, A., & Taylor, E. (2009). Factors influencing food safety management system adoption in Thai food-manufacturing firms: Model development and testing. *British Food Journal*, *111*, 364–375. https://doi.org/10.1108/00070700910951506

Azanza, M. P. V., & Zamora-Luna, M. B. V. (2005). Barriers of HACCP team members to guideline adherence. *Food Control*, *16*, 15–22. https://doi.org/10.1016/j.foodcont.2003.10.009

Aziz, Y. A., & Chok, N. V. (2013). The role of Halal awareness, Halal certification, and marketing components in determining Halal purchase intention among non-Muslims in Malaysia: A structural equation modeling approach. *Journal of International Food & Agribusiness Marketing*, *25*(1), 1–23. https://doi.org/10.1080/08974438.2013.723997

Badruldin, B., Mohamed, Z., Sharifuddin, J., Rezai, G., Abdullah, A. M., Latif, I. A., & Mohayidin, M. G. (2012). Clients' perception towards JAKIM service quality in Halal certification. *Journal of Islamic Marketing*, *3*, 59–71. https://doi.org/10.1108/17590831211206590

Bagozzi, R. P. (1981). An examination of the validity of two models of attitude. *Multivariate Behavioral Research*, *16*(3), 323–359.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/https://doi.org/10.1177/009207038801600107

Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing Construct Validity in Organizational Research. *Administrative Science Quarterly*, *36*(3), 421. https://doi.org/10.2307/2393203

Bai, L., Ma, C., Gong, S., & Yang, Y. (2007). Food safety assurance systems in China. *Food Control*, *18*(5), 480–484. https://doi.org/10.1016/j.foodcont.2005.12.005

Baker, G. A., & Starbird, S. A. (1992). Managing quality in California food processing firms. *Agribusiness*, *8*(2), 155–164. https://doi.org/10.1002/1520-6297(199203)8:2<155::AID-AGR2720080207>3.0.CO;2-G

Baker, G. A., Starbird, S. A., & Harling, K. F. (1994). Critical success factors for managing quality in food processing firm. *Agribusines*, *10*(6), 471–480. https://doi.org/10.1002/1520-6297(199411/12)10:6<471::AID-AGR2720100604>3.0.CO;2-N

Balduck, A., & Buelens, M. (2008). A two-level competing values framework to measuring nonprofit organizational effectiveness. *Vlerick Leuven Gent Management School Working Paper Series*, (0), 1–30. Retrieved from http://www.shareyourhoney.be/en/9637-VLK/version/default/part/AttachmentData/data/vlgms-wp-2008-19.pdf

Ball, B. (2011). *Validation of factors identified as influencing employee adherence to food safety management systems: a meat industry perspective. (PhD thesis)*. University of Guelph, Canada.

Ball, B., Wilcock, A., & Aung, M. (2009). Factors influencing workers to follow food safety management systems in meat plants in Ontario, Canada. *International Journal of Environmental Health Research*, *19*(3), 201–218. https://doi.org/10.1080/09603120802527646

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barouch, G., & Kleinhans, S. (2015). Learning from criticisms of quality management. *International Journal of Quality and Service Sciences*, *7*(2/3), 201–216. https://doi.org/10.1108/IJQSS-02-2015-0026

Bartholomew, T. T., Scheel, M. J., & Cole, B. P. (2015). Development and validation of the hope for change through counseling scale. *The Counseling Psychologist*, *43*(5), 671–702. https://doi.org/10.1177/0011000015589190

Bartsch, S. M., Asti, L., Nyathi, S., Spiker, M. L., & Lee, B. Y. (2018). Estimated Cost to a Restaurant of a Foodborne Illness Outbreak. *Public Health Reports*, *133*(3), 274–286. https://doi.org/10.1177/0033354917751129

Baş, M., Yüksel, M., & Çavuşoğlu, T. (2007). Difficulties and barriers for the implementing of HACCP and food safety systems in food businesses in Turkey. *Food Control*, *18*(2), 124–130. https://doi.org/10.1016/j.foodcont.2005.09.002

Baş, M., Yüksel, M., & Çavuşoğlu, T. (2007). Difficulties and barriers for the implementing of HACCP and food safety systems in food businesses in Turkey. *Food Control*, *18*(2), 124–130. https://doi.org/10.1016/j.foodcont.2005.09.002

Bazeley, P. (2006). The contribution of computer software to integrating qualitative and quantitative data and analyses. *Research in the Schools*, *13*(1), 64–74. https://doi.org/Article

Bazeley, P. (2012). Integrative analysis strategies for mixed data sources. *American Behavioral Scientist*, *56*(6), 814–828. https://doi.org/10.1177/0002764211426330

BBC News. (2013a, May 9). Leicester schools halal lamb burger contained pork. *BBC News*. Retrieved from www.bbc.com/news/uk-england-leicestershire-22466068

BBC News. (2013b, September 17). Leicestershire schools' flu vaccine contains gelatine. *BBC News*. Retrieved from www.bbc.com/news/uk-england-leicestershire-24113970

Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models. *Long Range Planning*, *45*, 359394. https://doi.org/10.1016/j.lrp.2012.10.001

Bedi, S. V. H. S. (2016). Are subjective business performance measures justified.

International Journal of Productivity and Performance Management, *65*(5), 811–830. https://doi.org/http://dx.doi.org/10.1108/IJPPM-12-2014-0196

Bennera, M. J., & Veloso, F. M. (2008). ISO 9000 practices and financial performance: A technology coherence perspective. *Journal of Operations Management*, *26*(5), 611–629. https://doi.org/10.1016/J.JOM.2007.10.005

Berg, B. L. (2004). *Qualitative research methods for the social sciences* (4th ed.). Boston: Pearson.

Beskese, A., & Cebeci, U. (2001). Total quality management and ISO 9000 applications in Turkey. *The TQM Magazine*, *13*(1), 69–74. https://doi.org/https://doi.org/10.1108/09544780110359392

Bhuiyan, N., & Alam, N. (2005). An investigation into issues related to the latest version of ISO 9000. *Total Quality Management and Business Excellence*, *16*(2), 199–213.

Black, S. E., & Porter, L. J. (1996). Identification of the critical factors of TQM. *Decision Sciences*, *27*(1), 1–21. https://doi.org/10.1111/j.1540-5915.1996.tb00841.x

Blankenship, B., & Petersen, P. (1999). W. Edwards Deming's mentor and others who made a significant impact on his views during the 1920s and 1930s. *Journal of Management History*, *5*(8), 454–467. https://doi.org/https://doi.org/10.1108/13552529910290511

Bohari, A. M., Hin, C. W., & Fuad, N. (2013). An analysis on the competitiveness of halal food industry in Malaysia: an approach of SWOT and ICT strategy. *Malaysia Journal of Society and Space*, *9*(1), 1–9.

Boiral, O. (2007). Corporate greening through ISO 14001: A rational myth? *Organization Science*, *18*(1), 127–146. https://doi.org/10.1287/orsc.1060.0224

Bonne, K., & Verbeke, W. (2008). Religious values informing halal meat production and the control and delivery of halal credence quality. *Agriculture and Human Values*, *25*, 35–47. https://doi.org/10.1007/s10460-007-9076-y

Boon-itt, S., & Paul, H. (2005). Measuring supply chain integration — using the Q-sort technique. In *Research Methodologies in Supply Chain Management* (pp. 47–58). Heidelberg: Physica-Verlag. https://doi.org/10.1007/3-7908-1636-1_4

Bottaro, M., Marchetti, P., Mottola, A., Shehu, F., & Pinto, A. (2014). Detection of mislabeling in packaged chicken sausages by PCR. *Albanian Journal of Agricultural Sciences*, (Special issue), 455–460.

Bou-Llusar, J. C., Escrig-Tena, A. B., Roca-Puig, V., & Beltrán-Martín, I. (2009). An empirical assessment of the EFQM Excellence Model: Evaluation as a TQM framework relative to the MBNQA Model. *Journal of Operations Management*, *27*(1), 1–22. https://doi.org/10.1016/J.JOM.2008.04.001

Bouranta, N., Psomas, E. L., & Pantouvakis, A. (2017). Identifying the critical

determinants of TQM and their impact on company performance. *The TQM Journal*, *29*(1), 147–166. https://doi.org/10.1108/TQM-11-2015-0142

Bourke, M. P. (1984). The continuum of pre- and post-bereavement grieving. *British Journal of Medical Psychology*, *57*(2), 121–125. https://doi.org/10.1111/j.2044-8341.1984.tb01590.x

Boynton, A. C., & Zmud, R. W. (1984). An assessment of critical success factors. *Sloan Management Review*, *25*(4), 17–27.

Brah, S. A., Li Wong, J., & Madhu Rao, B. (2000). TQM and business performance in the service sector: a Singapore study. *International Journal of Operations & Production Management*, *20*(11), 1293–1312. https://doi.org/https://doi.org/10.1108/01443570010348262

Brah, S. A., Tee, S. S. L., & Madhu Rao, B. (2002). Relationship between TQM and performance of Singapore companies. *International Journal of Quality & Reliability Management*, *19*(4), 356–379. https://doi.org/https://doi.org/10.1108/02656710210421553

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brod, M., Tesler, L. E., & Christensen, T. L. (2009). Qualitative research and content validity: developing best practices based on science and experience. *Quality of Life Research : An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, *18*(9), 1263–78. https://doi.org/10.1007/s11136-009-9540-9

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York: Guilford.

Bruil, R. (2010). *Halal logistics and the impact of consumer perceptions. (Master thesis)*. University of Twente, The Netherland.

Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative Research*, *6*(1), 97–113. https://doi.org/https://doi.org/10.1177/1468794106058877

Bryman, A. (2007). Barriers to integrating quantitative and qualitative research. *Journal of Mixed Methods Research*, *1*(1), 8–22. https://doi.org/10.1177/2345678906290531

Burns, A. C., & Bush, R. F. (2003). *Marketing research: Online research applications*. New Jersey: Prentice Hall.

Cameron, K. S. (1980). Critical questions in assessing organizational effectiveness. *Organizational Dynamics*, *9*(2), 66–80.

Cameron, K. S. (1982). The Effectiveness of Ineffectiveness: A New Approach to Assessing Patterns of Organizational Effectiveness.

Cameron, K. S. (1984). The effectiveness of ineffectiveness. *Research in Organizational Behavior*, *6*, 235–285.

Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993). Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personnel Psychology*, *46*, 823–850. https://doi.org/10.1111/j.1744-6570.1993.tb01571.x

Campo, J. E. (2009). *Encyclopedia of Islam*. New York: Infobase Publishing.

Carlsson, S. A., Leidner, D. E., & Elam, J. J. (1996). Individual and organizational effectiveness: perspectives on the impact of ESS in multinational organizations. In *Implementing systems for supporting management decisions* (pp. 91–107). Springer.

Carmen, E., & Santos-Vijande, M. L. (2014). Implementation of ISO-22000 in Spain: obstacles and key benefits. *British Food Journal*, *116*(10), 1581–1599. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Cassel, C., Hackl, P., & Westlund, A. H. (1999). Robustness of partial least-squares method for estimating latent variable quality structures. *Journal of Applied Statistics*, *26*(4), 435–446. https://doi.org/10.1080/02664769922322

Cavaleri, S. A. (2008). Are learning organizations pragmatic? *The Learning Organization*, *15*(6), 474–485. https://doi.org/10.1108/09696470810907383

Cawthorn, D. M., Steinman, H. A., & Hoffman, L. C. (2013). A high incidence of species substitution and mislabelling detected in meat products sold in South Africa. *Food Control*, *32*(2), 440–449.

Celaya, C., Zabala, S. M., Pérez, P., Medina, G., Mañas, J., Fouz, J., … Agundo, N. (2007). The HACCP system implementation in small businesses of Madrid's community. *Food Control*, *18*(10), 1314–1321. https://doi.org/10.1016/j.foodcont.2006.09.006

Ceranic, S., & Bozinovic, N. (2009). Possibilities and significance of HAS implementation (halal assurance system) in existing quality system in food industry. *Journal Biotechnology in Animal Husbandry*, *25*(3/4), 261–266. https://doi.org/10.2298/BAH0904261C

Chea, A. C. (2009). Exemplary models of firm innovation: strategy and leadership for the twenty-first century competitive environment. *International Business Research*, *2*(2), 9. https://doi.org/10.5539/ibr.v2n2p9

Chen, E., Flint, S., Perry, P., Perry, M., & Lau, R. (2015). Implementation of non-regulatory food safety management schemes in New Zealand: A survey of the food and beverage industry. *Food Control*, *47*, 569–576. https://doi.org/10.1016/j.foodcont.2014.08.009

Chen, Y., Friedman, R., Yu, E., Fang, W., & Lu, X. (2009). Supervisor–subordinate Guanxi: Developing a three-dimensional model and scale. *Management and Organization Review*, *5*(3), 375–399. https://doi.org/10.1111/j.1740-

8784.2009.00153.x

Chenhall, R. H. (1997). Reliance on manufacturing performance measures, total quality management and organizational performance. *Management Accounting Research*, *8*(2), 187–206. https://doi.org/https://doi.org/10.1006/mare.1996.0038

Cheung, C. M. K., & Lee, M. K. O. (2010). A theoretical model of intentional social action in online social networks. *Decision Support Systems*, *49*(1), 24–30. https://doi.org/10.1016/j.dss.2009.12.006

Cheung, M. F. Y., & To, W. M. (2010). Management commitment to service quality and organizational outcomes. *Managing Service Quality: An International Journal*, *20*(3), 259–272.

Chiles, T. H., & Choi, T. Y. (2000). Theorizing TQM: An Austrian and evolutionary economics interpretation. *Journal of Management Studies*, *37*(2), 185–212.

Chin, W. W., Peterson, R. A., & Brown, S. P. (2008). Structural equation modeling in marketing: Some practical reminders. *Journal of Marketing Theory and Practice*, *16*(4), 287–298.

Choi, T. Y., & Eboch, K. (1998). The TQM paradox: relations among TQM practices, plant performance, and customer satisfaction. *Journal of Operations Management*, *17*(1), 59–75.

Chong, V. K., & Rundus, M. J. (2004). Total quality management, market competition and organizational performance. *The British Accounting Review*, *36*(2), 155–172.

Choudhry, R. M., Fang, D., & Mohamed, S. (2007). The nature of safety culture: A survey of the state-of-the-art. *Safety Science*, *45*(10), 993–1012. https://doi.org/10.1016/j.ssci.2006.09.003

Christmann, P., & Taylor, G. (2006). Firm self-regulation through international certifiable standards: determinants of symbolic versus substantive implementation. *Journal of International Business Studies*, *37*(6), 863–878. https://doi.org/10.1057/palgrave.jibs.8400231

Claver, E., & Tarí, J. J. (2008). The individual effects of total quality management on customers, people and society results and quality performance in SMEs. *Quality and Reliability Engineering International*, *24*(2), 199–211. https://doi.org/10.1002/qre.885

Cohen, J. (1977). Statistical power analysis for the behavioral sciences (revised ed.). New York: Academic Press.

Cole, R. (1981). The Japanese lesson in quality. *Technology Review*, *83*(7), 29. https://doi.org/https://doi.org/10.1108/01443579710175619

Collins, R. S., & Cordon, C. (1997). Survey methodology issues in manufacturing strategy and practice research. *International Journal of Operations & Production Management*, *17*(7), 697–706. https://doi.org/https://doi.org/10.1108/01443579710175619

Connolly, T., Conlon, E. J., & Deutsch, S. J. (1980). Organizational effectiveness: A multiple-constituency approach. *Academy of Management Review*, *5*(2), 211–218.

Cooper, A. C. (1993). Challenges in predicting new firm performance. *Journal of Business Venturing*, *8*(3), 241–253.

Corbett, C. J., & Kirsch, D. A. (2009). International diffusion of ISO 14000 certification. *Production and Operations Management*, *10*(3), 327–342. https://doi.org/10.1111/j.1937-5956.2001.tb00378.x

Cormier, R. J., Mallet, M., Chiasson, S., Magnusson, H., & Valdimarsson, G. (2007). Effectiveness and performance of HACCP-based programs. *Food Control*, *18*(6), 665–671. https://doi.org/10.1016/j.foodcont.2006.02.019

Corredor, P., & Goñi, S. (2011). TQM and performance: Is the relationship so obvious? *Journal of Business Research*, *64*(8), 830–838. https://doi.org/10.1016/j.jbusres.2010.10.002

Costello, A. B., & Osborne, J. W. (2005). Best Practices in Exploratory Factor Analysis : Four Recommendations for Getting the Most From Your Analysis. *Practical Assessment, Research & Evaluation*, *10*(7), 1–9.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). California: Sage Publications.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). California: Sage Publications.

Creswell, J. W., & Clark, V. L. (2011). *Designing and conducting mixed methods research*. California: SAGE Publications.

Creswell, J. W., Fetters, M. D., & Ivankova, N. V. (2004). Designing a mixed methods study in primary care. *Annals of Family Medicine*, *2*(1), 7–12. https://doi.org/10.1370/AFM.104

Cronholm, S., & Hjalmarsson, A. (2011). Experiences from sequential use of mixed methods. *The Electronic Journal of Business*, *9*(2), 87–95. Retrieved from http://www.ejbrm.com/issue/download.html?idIssue=31

Crosby, P. B. (1979). *Quality Is Free: the art of making quality certain*. New York: McGraw-Hill.

Crosby, P. B. (1989). Crosby talks quality. *The TQM Magazine*, *1*(4). https://doi.org/10.1108/eb059474

Daft, R. L., Murphy, J., & Willmott, H. (2010). *Organization theory and design*. Cengage learning EMEA.

Dankers, C. (2003). *Environmental and social standards, certification and labelling for cash crops*. Rome. Retrieved from http://www.fao.org/docrep/006/y5136e/y5136e00.htm

Das, A., Handfield, R. B., Calantone, R. J., & Ghosh, S. (2000). A contingent view of quality management-the impact of international competition on quality. *Decision Sciences*, *31*(3), 649–690. https://doi.org/10.1111/j.1540-5915.2000.tb00938.x

Dauber, D., Fink, G., & Yolles, M. (2012). A Configuration Model of Organizational Culture. *SAGE Open*, *2*(1), 2158244012441482. https://doi.org/10.1177/2158244012441482

Daud, S., Din, R. C., & Bakar, S. (2011). Implementation of MS1500: 2009: A gap analysis. *Communications of the IBIMA*, *2011*, 1–11. https://doi.org/10.5171/2011.360500

David A. Garvin. (1986). Quality problems, policies, and attitudes in the United States and Japan: an exploratory study. *Academy of Management Journal*, *29*(4), 653–673. https://doi.org/10.2307/255938

Davis, L. L. (1992). Instrument review: Getting the most from a panel of experts. *Applied Nursing Research*, *5*(4), 194–7. https://doi.org/doi:1016/ S0897-1897 (05) 800 08-4

Davison, R., & Martinsons, M. G. (2002). Empowerment or enslavement? *Information Technology & People*, *15*(1), 42–59. https://doi.org/10.1108/09593840210421516

Dawes, J. (1999). The relationship between subjective and objective company performance measures in market orientation research: further empirical evidence. *Marketing Bulletin-Department of Marketing Massey University*, *10*, 65–75.

Dayang-Aniza, A. H. (2012). *Aplikasi konsep halal dalam kalangan pengusaha restoran Melayu di Johor Bharu. (Bachelor Degree dissertation).* Universiti Teknologi Malaysia.

De Cerio, J. M. (2003). Quality management practices and operational performance: empirical evidence for Spanish industry. *International Journal of Production Research*, *41*(12), 2763–2786. https://doi.org/https://doi.org/10.1080/0020754031000093150

de Quadras Rodrigues, R. Loiko, M. R., Mineia Daniel de Paula, C. Hessel, T., Jacxsens, L., Uyttendaele, M. J., Bender, R., & Tondo, E. C. (2014). Microbiological contamination linked to implementation of good agricultural practices in the production of organic lettuce in Southern Brazil. *Food Control*, *42*, 152–164. https://doi.org/https://doi.org/10.1016/j.foodcont.2014.01.043

De Toni, A., Nassimbeni, G., & Tonchia, S. (1995). An instrument for quality performance measurement. *International Journal of Production Economics*, *38*(2–3), 199–207. https://doi.org/10.1016/0925-5273(94)00093-P

Deflorin, O. (2014). Food control in Switzerland: An overview. *CHIMIA International Journal for Chemistry*, *68*(10), 680–681. https://doi.org/10.2533/chimia.2014.680

Delmas, M. A. (2002). The diffusion of environmental management standards in

Europe and in the United States: An institutional perspective. *Policy Sciences*, *35*(1), 91–119. https://doi.org/10.1023/A:1016108804453

Deming, W. E. (1986). Out of the crisis. Massachusetts Institute of Technology. *Center for Advanced Engineering Study, Cambridge, MA*, *510*.

Demirbag, M., Lenny Koh, S. C., Tatoglu, E., & Zaim, S. (2006). TQM and market orientation's impact on SMEs' performance. *Industrial Management & Data Systems*, *106*(8), 1206–1228. https://doi.org/https://doi.org/10.1108/02635570610710836

Demirhan, Y., Ulca, P., & Senyuva, H. Z. (2012). Detection of porcine DNA in gelatine and gelatine- containing processed food products – Halal/Kosher authentication. *Meat Science*, *90*(3), 686–689. https://doi.org/https://doi.org/10.1016/j.meatsci.2011.10.014

Dentch, M. P. (2016). *The ISO 9001:2015 implementation handbook: Using the process approach to build a quality management system*. Mexico: ASQ Quality Press.

Denzin, N. K. (1989). *Interpretive interactionism. Applied social research methods series*. California: Sage Publication.

Department of Standards Malaysia. (2009). Malaysian Standard MS 1500: 2009 Halal Food - Production, preparation, handling and storage -General Guidelines (Second Revision). Shah Alam: Department of Standards Malaysia.

Department of Standards Malaysia. (2017). SAMM Publication. Retrieved March 31, 2017, from http://www.jsm.gov.my/samm-publication#.WOPFGdJ97IU

Department of Standards Malaysia. (2018). MS 1500 - JSM Portal. Retrieved October 27, 2018, from http://www.jsm.gov.my/ms-1500

Deshpande, R., & Webster, F. J. (1989). Organizational culture and marketing: defining the research agenda. *The Journal of Marketing*, *53*(1), 3–15. https://doi.org/10.2307/1251521

Dess, G. G., & Robinson Jr, R. B. (1984). Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, *5*(3), 265–273.

DeVellis, R. F. (2012). *Scale Development: Theory and Applications*. California: SAGE Publications.

Di Pinto, A., Bottaro, M., Bonerba, E., Bozzo, G., Ceci, E., Marchetti, P., … Tantillo, G. M. (2015). Occurrence of mislabelling in meat products using DNA-based assay. *Journal of Food Science and Technology*, *52*(4), 2479–2484. https://doi.org/https://doi.org/10.1007/s13197-014-1552-y

Di Pinto, A., Forte, V. T., Conversano, M. C., & Tantillo, G. M. (2005). Duplex polymerase chain reaction for detection of pork meat in horse meat fresh sausages from Italian retail sources. *Food Control*, *16*(5), 391–394.

https://doi.org/https://doi.org/10.1016/j.foodcont.2004.04.004

Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*, *38*(2), 269–277. https://doi.org/10.2307/1558630

Dilber, M., Bayyurt, N., Zaim, S., & Tarim, M. (2005). Critical factors of total quality management and its effect on performance in health care industry : A Turkish experience. *Problems and Perspectives in Management*, *4*, 220–235. https://doi.org/10.1080/09540962.2013.817126

Dillman, D. A., Phelps, G., Tortora, R., Swift, K., Kohrell, J., Berck, J., & Messer, B. L. (2009). Response rate and measurement differences in mixed-mode surveys using mail, telephone, interactive voice response (IVR) and the Internet. *Social Science Research*, *38*(1), 1–18. https://doi.org/https://doi.org/10.1016/j.ssresearch.2008.03.007

Din, R. C., & Daud, S. (2014). Critical success factors of MS1500:2009 implementation. *Procedia - Social and Behavioral Sciences*, *121*(September 2012), 96–103. https://doi.org/10.1016/j.sbspro.2014.01.1111

Din, R. C., & Rajadurai, J. (2013). Linking top management commitment , employee commitment and employee sincerity to the successful implementation of Malaysian halal food standard (MS1500 : 2009) practices in Malaysia. In *International Conference on ISO & TQM* (pp. 21–23). Kuching: UiTM Sarawak.

Dinar Standard, & Thomson Reuters. (2016). *State of Global Islamic Economy Report 2016/17*. Dubai. Retrieved from https://ceif.iba.edu.pk/pdf/ThomsonReuters-stateoftheGlobalIslamicEconomyReport201617.pdf

Dindyal, S., & Dindyal, S. (2002). How Personal factors, including culture and ethnicity, affect the choices and selection of food we make. *Internet Journal of Third World Medicine*, *1*(2), 27–33.

Dixon, W. H. (1972). Narcotics Legislation and Islam in Egypt. Retrieved from http://www.unodc.org/unodc/en/data-and-analysis/bulletin/bulletin_1972-01-01_4_page003.html

Dmitrienko, A., Chuang-Stein, C., & D'Agostino, R. B. (2007). *Pharmaceutical statistics using SAS : a practical guide*. North Carolina: SAS Institute.

Doi, A. R. I. (1995). *Shari'ah : Islamic law*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Doménech, E., Amorós, J. A., Pérez-Gonzalvo, M., & Escriche, I. (2011). Implementation and effectiveness of the HACCP and pre-requisites in food establishments. *Food Control*, *22*(8), 1419–1423. https://doi.org/10.1016/j.foodcont.2011.03.001

Donaldson, L. (2001). *The contingency theory of organizations*. California: Sage Publications. https://doi.org/10.4135/9781452229249

Doosti, A., Ghasemi Dehkordi, P., & Rahimi, E. (2014). Molecular assay to fraud identification of meat products. *Journal of Food Science and Technology*, *51*(1), 148–152. https://doi.org/10.1007/s13197-011-0456-3

Dora, M., Kumar, M., Van Goubergen, D., Molnar, A., & Gellynck, X. (2013a). Food quality management system: Reviewing assessment strategies and a feasibility study for European food small and medium-sized enterprises. *Food Control*, *31*(2), 607–616. https://doi.org/10.1016/j.foodcont.2012.12.006

Dora, M., Kumar, M., Van Goubergen, D., Molnar, A., & Gellynck, X. (2013b). Operational performance and critical success factors of lean manufacturing in European food processing SMEs. *Trends in Food Science & Technology*, *31*(2), 156–164. https://doi.org/10.1016/j.tifs.2013.03.002

Douglas, T. J., & Judge, W. Q. (2001). Total Quality Management implimentation and competitive advantages: The role of structural control and exploration. *Academy of Management Journal*, *44*(1), 158–169. https://doi.org/10.2307/3069343

Dow, D., Samson, D., & Ford, S. (1999). Exploding the myth: Do all quality management practices contribute to superior quality performance? *Production and Operations Management*, *8*(1), 1–27. https://doi.org/10.1111/j.1937-5956.1999.tb00058.x

Dzingirayi, G., & Korsten, L. (2016). Assessment of primary production of horticultural safety management systems of mushroom farms in South Africa. *Journal of Food Protection*, *79*(7), 1188–1196. https://doi.org/10.4315/0362-028X.JFP-15-356

Easton, G. S., & Jarrell, S. L. (1998). The effects of total quality management on corporate performance: an empirical investigation. *The Journal of Business*, *71*(2), 253–307. https://doi.org/http://www.jstor.org/stable/10.1086/209744

EFQM. (2004). *The EFQM Excellence Model*. Brussels: European Foundation for Quality Management.

Egan, M. B., Raats, M. M., Grubb, S. M., Eves, A., Lumbers, M. L., Dean, M. S., & Adams, M. R. (2007). A review of food safety and food hygiene training studies in the commercial sector. *Food Control*, *18*(10), 1180–1190. https://doi.org/10.1016/j.foodcont.2006.08.001

El-Mouelhy, M. (1997). Halal concept. Retrieved from http://www.halalhelpline.org/hala.htm

Eliot Beer. (2014). Global Halal market to hit $1.6tn by 2018. Retrieved October 18, 2018, from https://www.foodnavigator.com/Article/2014/08/13/Global-Halal-market-to-hit-1.6tn-by-2018

Eliot, R. (2006, October 26). Something fishy in your pasta? *The Guardian*. Retrieved from https://www.theguardian.com/lifeandstyle/2006/oct/26/foodanddrink.uk

Emison, G. A. (2004). Pragmatism, adaptation, and Total Quality Management: Philosophy and science in the service of managing continuous improvement.

Journal of Management in Engineering, *20*(2), 56–61. https://doi.org/10.1061/(ASCE)0742-597X(2004)20:2(56)

Escanciano, C., & Santos-Vijande, M. L. (2014). Reasons and constraints to implementing an ISO 22000 food safety management system: Evidence from Spain. *Food Control*, *40*(1), 50–57. https://doi.org/10.1016/j.foodcont.2013.11.032

Etzioni, A. (1960). Two approaches to organizational analysis: A critique and a suggestion. *Administrative Science Quarterly*, 257–278.

Etzioni, A. (1964). *Modern organization*. *Prentice Hall*. Englewood Clifis.

Eves, A., & Dervisi, P. (2005). Experiences of the implementation and operation of hazard analysis critical control points in the food service sector. *International Journal of Hospitality Management*, *24*(1), 3–19. https://doi.org/10.1016/j.ijhm.2004.04.005

Farhana, J. (2015, February 12). Hati-hati beli bebola ikan - Jakim. *Utusan Malaysia*. Retrieved from http://www.utusan.com.my/berita/nasional/hati-hati-beli-bebola-ikan-jakim-1.58764

Feng, M., Terziovski, M., & Samson, D. (2008). Relationship of ISO 9001:2000 quality system certification with operational and business performance: A survey in Australia and New Zealand-based manufacturing and service companies. *Journal of Manufacturing Technology Management*, *19*(1), 22–37. https://doi.org/10.1108/17410380810843435

Fernández-Muñiz, B., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2007). Safety management system: Development and validation of a multidimensional scale. *Journal of Loss Prevention in the Process Industries*, *20*, 52–68. https://doi.org/10.1016/j.jlp.2006.10.002

Fetters, M. D. (2016). "Haven't we always been doing mixed methods research? *Journal of Mixed Methods Research*, *10*(1), 3–11. https://doi.org/10.1177/1558689815620883

Field, A. (2009). *Discovering statistics using SPSS*. London: Sage Publications.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. London: Sage Publications.

Finance Twitter. (2007). Silver Bird might be yelling give-me-5, High-5. Retrieved January 15, 2018, from www.financetwitter.com/2007/09/silver-bird-might-be-yelling-give-me-5.html

Fischer, J. (2015). *Islam, standards, and technoscience: In global halal zones*. New York: Routledge.

Fischer, J. (2016). Manufacturing halal in Malaysia. *Contemporary Islam*, *10*(1), 35–52. https://doi.org/10.1007/s11562-015-0323-5

Flin, R., Mearns, K., O'Connor, P., & Bryden, R. (2000). Measuring safety climate: Identifying the common features. *Safety Science*, *34*(1–3), 177–192. https://doi.org/10.1016/S0925-7535(00)00012-6

Flores Munguia, M. E., Bermudez Almada, M. C., & Vázquez Moreno, L. (2000). a Research Note: Detection of Adulteration in Processed Traditional Meat Products. *Journal of Muscle Foods*, *11*(4), 319–325. https://doi.org/10.1111/j.1745-4573.2000.tb00435.x

Flynn, B. B., & Schroeder, R. G. (1995). The impact of quality management practices on performance and competitive advantage. *Decisions Sciences*, *26*(5), 659–691. https://doi.org/10.1111/j.1540-5915.1995.tb01445.x

Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1994). A framework for quality management research and an associated measurement instrument. *Journal of Operations Management*, *11*(4), 339–366. https://doi.org/10.1016/S0272-6963(97)90004-8

Fock, H., Hui, M. K., Au, K., & Bond, M. H. (2013). Moderation Effects of Power Distance on the Relationship Between Types of Empowerment and Employee Satisfaction. *Journal of Cross-Cultural Psychology*, *44*(2), 281–298. https://doi.org/10.1177/0022022112443415

Food and Agriculture Organization, & World Health Organization. (2003). *Assuring food safety and quality: Guidelines for strengthening national food control systems*. Rome.

Forbes, D. P. (1998). Measuring the unmeasurable: Empirical studies of nonprofit organization effectiveness from 1977 to 1997. *Nonprofit and Voluntary Sector Quarterly*, *27*(2), 183–202.

Fornell, C., & Larcker, D. (1981). Evaluating Structural Equation Models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.2307/3151312

Forza, C., & Filippini, R. (1998). TQM impact on quality conformance and customer satisfaction: A causal model. *International Journal of Production Economics*, *55*(1), 1–20. https://doi.org/10.1016/S0925-5273(98)00007-3

Fotopoulos, C. V., Kafetzopoulos, D. P., & Gotzamani, K. D. (2011). Critical factors for effective implementation of the HACCP system: a Pareto analysis. *British Food Journal*, *113*(5), 578–597. https://doi.org/10.1108/00070701111131700

Fotopoulos, C. V., Kafetzopoulos, D. P., & Psomas, E. L. (2009). Assessing the critical factors and their impact on the effective implementation of a food safety management system. *International Journal of Quality & Reliability Management*, *26*(9), 894–910. https://doi.org/10.1108/02656710910995082

Fraser, R., & Souza, D. (2009). A conceptual framework for evaluating the most cost-effective intervention along the supply chain to improve food safety. *Food Policy*, *34*(5), 477–481. https://doi.org/10.1016/j.foodpol.2009.06.001

Fredendall, L. D., Zu, X., & Douglas, T. J. (2008). The Evolving Theory of Quality Management : The Role of Six Sigma The evolving theory of quality management : The role of Six Sigma. *Journal of Operations Management*, *26*(October 2015), 630–650. https://doi.org/10.1016/j.jom.2008.02.001

Fuentes, M. M. F., Montes, F. J. L., & Fernández, L. M. M. (2006). Total Quality Management, strategic orientation and organizational performance: the case of Spanish companies. *Total Quality Management & Business Excellence*, *17*(3), 303–323. https://doi.org/10.1080/14783360500451358

Galstyan, S. H., & Harutyunyan, T. L. (2016). Barriers and facilitators of HACCP adoption in the Armenian dairy industry. *British Food Journal*, *118*(11), 2676–2691. https://doi.org/10.1108/BFJ-02-2016-0057

García-Bernal, J., & Ramírez-Alesón, M. (2015). Why and how TQM leads to performance improvements. *The Quality Management Journal*, *22*(3), 23–37. https://doi.org/https://doi.org/10.1080/10686967.2015.11918439

Garvin, D. A. (1987). Competing on the eight dimensions of quality. *Harvard Business Review*, *65*(87603), 101–109. https://doi.org/10.1225/87603

Garvin, D. A. (1991). How the Baldridge award really works. *Harvard Business Review*, *69*(6), 80–93. Retrieved from http://web.a.ebscohost.com.ezaccess.library.uitm.edu.my/ehost/pdfviewer/pdfviewer?sid=0e671db5-d7a3-48e7-ba35-91e0fd6b00f8@sessionmgr4002&vid=6&hid=4107

Garvin, D. A. (1993). Manufacturing strategic planning. *California Management Review*, *35*(4), 85–106. https://doi.org/https://doi.org/10.2307/41166756

Gellynck, X., Dora, M. K., & Molnar, A. (2010). Diagnosing quality improvement initiatives among European food SMEs. *ASQ Silicon Valley Quality Conference, Proceedings*. Retrieved from https://biblio.ugent.be/publication/1248002

Georgopoulos, B. S., & Tannenbaum, A. S. (1957). A study of organizational effectiveness. *American Sociological Review*, *22*(5), 534–540.

Gibbs, G. R. (2008). *Analysing qualitative data*. California: SAGE Publications.

Goetsch, D., & Davis, S. (2005). *Understanding and implementing ISO 9000:2000*. New Jersey: Prentice-Hall.

Goldsmith, R. E., & Horowitz, D. (2006). Measuring motivations for online opinion seeking. *Journal of Interactive Advertising*, *6*(2), 2–14. https://doi.org/10.1080/15252019.2006.10722114

González, M. E., Quesada, G., & Mora Monge, C. A. (2004). Determining the importance of the supplier selection process in manufacturing: a case study. *International Journal of Physical Distribution & Logistics Management*, *34*(6), 492–504. https://doi.org/10.1108/09600030410548550

González Torre, P., Adenso-Díaz, B., & González, B. A. (2001). Empirical evidence

about managerial issues of ISO certification. *The TQM Magazine*, *13*(5), 355–360. https://doi.org/10.1108/EUM0000000005861

Goodman, P. S., & Pennings, J. M. (1977). *New perspectives on organizational effectiveness*. Jossey-Bass San Francisco.

Gore, E. W. J. (1999). Organizational culture, TQM, and business process reengineering: An empirical comparison. *Team Performance Management*, *5*(5), 164. https://doi.org/https://doi.org/10.1108/13527599910288993

Gorsuch, R. L. (1997). Exploratory factor analysis: Its role in item analysis. *Journal of Personality Assessment*, *68*(3), 532–560. https://doi.org/10.1207/s15327752jpa6803_5

Gotzamani, K. D. (2005). The implications of the new ISO 9000:2000 standards for certified organizations: A review of anticipated benefits and implementation pitfalls. *International Journal of Productivity and Performance Management*, *54*(8), 645–657. https://doi.org/10.1108/17410400510627507

Grandzol, J. R., & Gershon, M. (1997). Which TOM practices really matter: An empirical investigation. *Quality Management Journal*, *4*, 43–59.

Griffith, C. J. (2000). Food safety in catering establishments. In J. M. Farber & E. C. D. Todd (Eds.), *Safe handling of foods,* (pp. 235–256). New York: Marcel Dekker.

Guetterman, T. C., Creswell, J. W., Deutsch, C., & Gallo, J. J. (2016). Process evaluation of a retreat for scholars in the first cohort: The NIH mixed methods research training program for the health sciences. *Journal of Mixed Methods Research*, 1–17. https://doi.org/10.1177/1558689816674564

Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *Annals of Family Medicine*, *13*(6), 554–561. https://doi.org/10.1370/afm.1865

Guler, I., Guillén, M. F., Macpherson, J. M., & Guillen, M. F. (2002). Global competition, institutions, and the diffusion of organizational practices: The international spread of ISO 9000 quality certificates. *Administrative Science Quarterly*, *47*(2), 207. https://doi.org/10.2307/3094804

Guttman, L. (1954). Some necessary conditions for common-factor analysis. *Psychometrika*, *19*(2), 149–161. https://doi.org/10.1007/BF02289162

Hackman, J. R., & Wageman, R. (1995). Total Quality Management: Empirical, conceptual, and practical issues. *Administrative Science Quarterly*, *40*(2), 309. https://doi.org/10.2307/2393640

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis*. London: Pearson Education Limited.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). *A primer on partial*

least squares structural equation modeling (PLS-SEM) (2nd ed.). Washington DC: SAGE Publications.

Hair, J. F., Hult, M. G. T., Ringle, C. M., & Sarstedt, M. (2013). *A primer on partial least squares structural equation modeling (PLS-SEM)*. California: SAGE Publications.

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Halal Industry Development Corporation. (2016). Halal Certified Statistics. Retrieved October 25, 2018, from http://www.hdcglobal.com/publisher/gwm_industry_statistics

Halal Monitoring Authority. (2007). Problems discovered in the industry. Retrieved December 16, 2010, from http://hma.jucanada.org/industry_problems.aspx

Halal Monitoring Committee. (2009a). Necessity to form a monitoring committee. Retrieved December 16, 2010, from ttp://www.halalmc.co.uk/about_hmc/need_ monitoring.html

Halal Monitoring Committee. (2009b). Problems discovered in the 'halal' industry. Retrieved December 16, 2010, from http://www.halalmc.co.uk/about_hmc/industry_ problems.html

Halim Said. (2017, July 17). Maqis seizes containers of unseparated halal, non-halal meat at Tanjung Pelepas. *New Straits Times*. Retrieved from https://www.nst.com.my/news/crime-courts/2017/07/258158/maqis-seizes-containers-unseparated-halal-non-halal-meat-tanjung

Handfield, R. (1998). *The scientific theory-building process: a primer using the case of TQM*. *Journal of Operations Management* (Vol. 16). Elsevier Science Pub. Co. https://doi.org/10.1016/S0272-6963(98)00017-5

Hardon, A., Hodgkin, C., & Fresle, D. (2004). *How to investigate the use of medicines by consumers*. Geneva: World Health Organization.

Harrington, D. (2009). Confirmatory Factor Analysis.(Pocket Guides to Social Work Research Methods Series). New York: Oxford University Press.

Hashimi, D., Saifuddeen, M., & Salleh, M. (2010). A background on Halal industry and principles. In *International workshop for islamic scholars on agribio-technology: Shariah compliance* (pp. 12–20). Georgetown: The International Service for the Acuisition of Argi-biotech Applications (ISAAA).

Hassan, M. H., Arif, S., & Sidek, S. (2015). Knowledge and practice for implementing

internal halal assurance system among halal executives. *Asian Social Science*, *11*(17), 57–66. https://doi.org/10.5539/ass.v11n17p57

Hava, E. (2009, October 4). New organization to sort out rotten apples in European halal food market. *Sunday's Zaman*.

HDC. (2016). Halal Industry Development Corporation. Retrieved January 1, 2016, from www.hdcglobal.com/

Hendricks, K. B., & Singhal, V. R. (1997). Does implementing an effective TQM program actually improve operating performance? Empirical evidence from firms that have won quality awards. *Management Science*, *43*(9), 1258–1274. https://doi.org/10.1287/mnsc.43.9.1258

Henri, J.-F. J. (2005). Performance measurement and organizational effectiveness: bridging the gap. *Managerial Finance*, *30*(6), 93–123. https://doi.org/10.1108/03074350410769137

Henriques, I., & Sadorsky, P. (1999). The relationship between environmental commitment and managerial perceptions of stakeholder importance. *Academy of Management Journal*, *42*(1), 87–99. https://doi.org/10.2307/256876

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Heras, I. S., Arana, G., & San Miguel, E. (2010). An analysis of the main drivers for ISO 9001 and other Isomorphic. *Review of International Comparative Management*, *11*(4), 562–574.

Herath, D., & Henson, S. (2010). Barriers to HACCP implementation: Evidence from the food processing sector in Ontario, Canada. *Agribusiness*, *26*(2), 265–279. https://doi.org/10.1002/agr

Hillebrand, B., Nijholt, J. J., & Nijssen, E. J. (2011). Exploring CRM effectiveness: An institutional theory perspective. *Journal of the Academy of Marketing Science*, *39*(4), 592–608. https://doi.org/10.1007/s11747-011-0248-3

Hinkin, T. . R., Tracey, J. . B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality and Tourism Research*, *21*(1), 100–120. https://doi.org/10.1177/109634809702100108

Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, *21*(5), 967–988. https://doi.org/10.1177/014920639502100509

Ho, D. C. K., Duffy, V. G., & Shih, H. M. (2001). Total quality management: An empirical test for mediation effect. *International Journal of Production Research*, *39*(3), 529–548. https://doi.org/10.1080/00207540010005709

Holt, G., & Henson, S. J. (2000). Information for good hygiene practice in small

businesses. *British Food Journal*, *102*, 320–337. https://doi.org/10.1108/00070700010327742

Hoorfar, J., Jordan, K., Butler, F., & Prugger, R. (2011). *Food chain integrity: A holistic approach to food traceability, safety, quality and authenticity*. Cambridge: Woodhead Publishing Ltd.

Hopper, M., Boutrif, E., & Nations, F. and A. O. of the U. (2006). *Strengthening national food control systems: guidelines to assess capacity building needs*. Rome: FAO.

Howells, A. D., Roberts, K. R., Shanklin, C. W., Pilling, V. K., Brannon, L. A., & Barrett, B. B. (2008). Restaurant employees' perceptions of barriers to three food safety practices. *Journal of the American Dietetic Association*, *108*(8), 1345–1349. https://doi.org/10.1016/j.jada.2008.05.010

Hui, M. K., Au, K., & Fock, H. (2004). Empowerment effects across cultures. *Journal of International Business Studies*, *35*(1), 46–60. https://doi.org/https://doi.org/10.1057/palgrave.jibs.8400067

Hurley, A. E., Scandura, T. A., Schriesheim, C. A., Brannick, M. T., Seers, A., Vandenberg, R. J., & Williams, L. J. (1997). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior*, *18*(6), 667–683. https://doi.org/10.1002/(SICI)1099-1379(199711)18:6<667::AID-JOB874>3.0.CO;2-T

Hussain, M. A., & Dawson, C. O. (2013). Economic impact of food safety outbreaks on food businesses. *Foods*, *2*(4), 585–589.

Hussain, M., & Bon, M. (2015). Halal food and tourism: Prospects and challenges. In *Tourism in the Muslim World* (Vol. 2, pp. 47–59). https://doi.org/doi:10.1108/S2042-1443(2010)0000002007

Ilkay, M. S., & Aslan, E. (2012). The effect of the ISO 9001 quality management system on the performance of SMEs. *International Journal of Quality and Reliability Management*, *29*(7), 753–778. https://doi.org/10.1108/02656711211258517

International Organization for Standardization. (2017). ISO 9001 quality management systems - revision. Retrieved from https://www.iso.org/iso-9001-revision.html

Ishak, S., Awang, A. H., Hussain, M. Y., Ramli, Z., Md Sum, S., Saad, S., & Abd Manaf, A. (2016). A study on the mediating role of halal perception: determinants and consequence reflections. *Journal of Islamic Marketing*, *7*(3), 288–302. https://doi.org/10.1108/JIMA-02-2015-0010

ISO. (2017). Management system standards. Retrieved August 20, 2017, from https://www.iso.org/management-system-standards.html

ISO 22000. (2005). Food safety management systems requirements for any organisation in the food value chain. Retrieved January 15, 2018, from https://www.iso.org/standard/35466.html

ISO 9001. (2015). *Quality management systems - Requirements (ISO 9001:2015)*. Retrieved from https://www.iso.org/standard/62085.html

Issac, G., Rajendran, C., & Anantharaman, R. N. (2004). A conceptual framework for total quality management in software organizations. *Total Quality Management & Business Excellence*, *15*(3), 307–344. https://doi.org/https://doi.org/10.1080/1478336042000183398

Ittner, C. D., & Larcker, D. F. (1997). Quality strategy, strategic control systems, and organizational performance. *Accounting, Organizations and Society*, *22*(3–4), 293–314. https://doi.org/10.1016/S0361-3682(96)00035-9

Jacxsens, L., Kussaga, J., Luning, P. A., van der Spiegel, M., Devlieghere, F., Uyttendaele, M., … Uyttendaele, M. (2009). A microbial assessment scheme to measure microbial performance of food safety management systems. *International Journal of Food Microbiology*, *134*(12), 113–125. https://doi.org/10.1016/j.ijfoodmicro.2009.02.018

Jacxsens, L., Uyttendaele, M., Devlieghere, F., Rovira, J., Gomez, S. O., & Luning, P. A. (2010). Food safety performance indicators to benchmark food safety output of food safety management systems. *International Journal of Food Microbiology*, *141*, S180–S187. https://doi.org/10.1016/j.ijfoodmicro.2010.05.003

JAKIM. (2011). Non-conformance report. Retrieved January 1, 2014, from http://www.halal.gov.my/v3/index.php/en/component/content/

JAKIM. (2012). *Statistics on product recall*. Kuala Lumpur: Jabatan Kemajuan Islam Malaysia (JAKIM).

JAKIM. (2013). *Guidelines for halal assurance management system of Malaysia halal certification*. Cyberjaya.

JAKIM. (2014). *Manual procedure for Malaysia halal certification*. Putrajaya: Jabatan Kemajuan Islam Malaysia.

JAKIM. (2018). Halal Malaysian Portal. Retrieved November 12, 2018, from http://www.halal.gov.my/v4/index.php?data=bW9kdWxlcy9uZXdzOzs7Ow==&utaman=ann

Jamny Rosli. (2017). Malaysia's halal exports hit RM43.4b in 2017. *Malaymail Online*. Retrieved from https://www.malaymail.com/s/1599895/malaysias-halal-exports-hit-rm43.4b-in-2017

Jang, W. Y., & Lin, C. I. (2008). An integrated framework for ISO 9000 motivation, depth of ISO implementation and firm performance: The case of Taiwan. *Journal of Manufacturing Technology Management*, *19*(2), 194–216. https://doi.org/10.1108/17410380810847918

Jaques, T. (2015). Cadbury and pig DNA: when issue management intersects with religion. *Corporate Communications: An International Journal*, *20*(4), 468–482. https://doi.org/10.1108/CCIJ-10-2014-0066

Jevšnik, M., Hlebec, V., & Raspor, P. (2008). Food safety knowledge and practices among food handlers in Slovenia. *Food Control*, *19*(12), 1107–1118. https://doi.org/10.1016/j.foodcont.2007.11.010

Johari, R. E. (2010). Fraud on halal food: More than just food safety at stake. Retrieved January 15, 2018, from https://www.pwc.com/gx/en/food-supply-integrity-services/publications/fraud-on-halal-food.pdf

Johnson, R. B., & Onwuegbuzie, A. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, *33*(14), 14–26. https://doi.org/10.3102/0013189X033007014

Joiner, T. A. (2007). Total quality management and performance: The role of organization support and co-worker support. *International Journal of Quality & Reliability Management*, *24*(6), 617–627. https://doi.org/10.1108/02656710710757808

Joint FAO/WHO Codex Alimentarius Commission, & Programme. (2003). *Codex Alimentarius: Food hygiene, basic texts*. Rome: Food & Agriculture Org.

Jolliffe, I. T. (1987). Rotation of principal components: Some comments. *Journal of Climatology*, *7*(5), 507–510. https://doi.org/10.1002/joc.3370070506

Jones, R., Arndt, G., & Kustin, R. (1997). ISO 9000 among Australian companies: impact of time and reasons for seeking certification on perceptions of benefits received. *International Journal of Quality & Reliability Management*, *14*(7), 650–660.

Jöreskog, K. G., & Wold, H. O. A. (1982). The ML and PLS techniques for modeling with latent variables: historical and comparative aspects. In H. O. A. Wold & K. G. Jöreskog (Eds.), *Systems Under Indirect Observation (Part I)* (pp. 263–270). Amsterdam: North-Holland.

Jun, M., Cai, S., & Shin, H. (2006). TQM practice in maquiladora: Antecedents of employee satisfaction and loyalty. *Journal of Operations Management*, *24*(6), 791–812. https://doi.org/10.1016/j.jom.2005.09.006

Juran, J. M. (1988). *How to use the handbook*. New York: McGraw-Hill.

Juran, J. M. (1992). *Juran on quality by design: the new steps for planning quality into goods and services*. New York: Simon and Schuster.

Juran, J. M., & Gryna, F. M. (1993). *Quality planning and analysis : from product development through use*. New York: McGraw-Hill.

Kafetzopoulos, D. P., & Gotzamani, K. D. (2014). Critical factors, food quality management and organizational performance. *Food Control*, *40*, 1–11. https://doi.org/10.1016/j.foodcont.2013.11.029

Kafetzopoulos, D. P., & Psomas, E. L. (2013). Measuring the effectiveness of the HACCP Food Safety Management System. *Food Control*, *33*(2), 505–513. https://doi.org/doi:10.1016/j.foodcont.2013.03.044

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, *XX*(1), 141–151. https://doi.org/https://doi.org/10.1177/001316446002000116

Kamali, M. H. (2003). *Principles of Islamic jurisprudence*. Cambridge: Islamic Texts Society.

Kannan, V. (2005). Just in time, total quality management, and supply chain management: understanding their linkages and impact on business performance. *Omega*, *33*(2), 153–162. https://doi.org/10.1016/j.omega.2004.03.012

Karaman, A. D. (2012). Food safety practices and knowledge among Turkish dairy businesses in different capacities. *Food Control*, *26*(1), 125–132. https://doi.org/10.1016/j.foodcont.2012.01.012

Karaman, A. D., Cobanoglu, F., Tunalioglu, R., & Ova, G. (2012). Barriers and benefits of the implementation of food safety management systems among the Turkish dairy industry: A case study. *Food Control*, *25*(2), 732–739. https://doi.org/10.1016/j.foodcont.2011.11.041

Karapetrovic, S., Rajamani, D., & Willborn, W. (1997). ISO 9000 for small business: do it yourself. *Industrial Management*, *39*(3), 24–31.

Karipidis, P., Athanassiadis, K., Aggelopoulos, S., & Giompliakis, E. (2009). Factors affecting the adoption of quality assurance systems in small food enterprises. *Food Control*, *20*, 93–98. https://doi.org/10.1016/j.foodcont.2008.02.008

Katz, M. H. (2011). *Multivariable Analysis: A Practical Guide for Clinicians and Public Health Researchers*. Cambridge: Cambridge University Press.

Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, *21*(4), 405–435. https://doi.org/10.1016/S0272-6963(03)00004-4

Kerssens-van Drongelen, I. C. (1999). *Systematic design of R&D performance measurement systems*. Enschede: Print Partners Ipskamp.

Ketokivi, M. A., & Schroeder, R. G. (2003). Strategic, structural-contingency and institutional explanations in the diffusion of innovative manufacturing practices. *Journal of Operations Management*, *22*(1), 1–46. https://doi.org/http://dx.doi.org/10.1016/j.jom.2003.12.002

Khairy, A., & Domil, A. (2011). Assessing barriers of growth of food processing SMIS in Malaysia : A factor analysis. *International Business Research*, *4*(1), 252–259. https://doi.org/10.5539/ibr.v4n1p252

Khatri, Y., & Collins, R. (2007). Impact and status of HACCP in the Australian meat industry. *British Food Journal*, *109*(5), 343–354. https://doi.org/10.1108/00070700710746768

Kiesewetter, J., & Fischer, M. R. (2015). The teamwork assessment scale: A novel instrument to assess quality of undergraduate medical students' teamwork using

the example of simulation-based ward-rounds. *GMS Zeitschrift Für Medizinische Ausbildung*, *32*(2), Doc19-Doc19. https://doi.org/10.3205/zma000961

Kim, D.-Y., Kumar, V., & Kumar, U. (2012). Relationship between quality management practices and innovation. *Journal of Operations Management*, *30*(4), 295–315. https://doi.org/10.1016/j.jom.2012.02.003

Kirezieva, K., Jacxsens, L., Uyttendaele, M., Van Boekel, M. a. J. S., & Luning, P. A. (2013). Assessment of Food Safety Management Systems in the global fresh produce chain. *Food Research International*, *52*(1), 230–242. https://doi.org/10.1016/j.foodres.2013.03.023

Kirezieva, K., Luning, P. A., Jacxsens, L., & Allende, A. (2015). Factors affecting the status of food safety management systems in the global fresh produce chain. *Food Control*, *52*, 85–97. https://doi.org/10.1016/j.foodcont.2014.12.030

Kirezieva, K., Nanyunja, J., Jacxsens, L., van der Vorst, J. G. A. J., Uyttendaele, M., & Luning, P. A. (2013). Context factors affecting design and operation of food safety management systems in the fresh produce chain. *Trends in Food Science & Technology*, *32*(2), 108–127. https://doi.org/10.1016/j.tifs.2013.06.001

Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling*. New York: The Guilford Press.

Ko, W. H. (2015). Food suppliers' perceptions and practical implementation of food safety regulations in Taiwan. *Journal of Food and Drug Analysis*, *23*(4), 778–787. https://doi.org/10.1016/j.jfda.2015.05.006

Koc, T. (2007). The impact of ISO 9000 quality management systems on manufacturing. *Journal of Materials Processing Technology*, *186*(December 2006), 207–213. https://doi.org/10.1016/j.jmatprotec.2006.12.034

Kohilavani, Zzaman, W., Febrianto, N. A., Zakariya, N. S., Abdullah, W. N. W., & Yang, T. A. (2013). Embedding Islamic dietary requirements into HACCP approach. *Food Control*, *34*(2), 607–612. https://doi.org/10.1016/j.foodcont.2013.06.008

Kohli, A. K., Jaworski, B. J., & Kumar, A. (1993). MARKOR: a measure of market orientation. *Journal of Marketing Research*, 467–477.

Korkmaz, S., Goksuluk, D., & Zararsiz, G. (2014). MVN: An R package for assessing multivariate normality. *The R Journal*, *6*(2013), 151–162. https://doi.org/10.1.1.661.7273

Krafcik, J. F. (1988). Triumph of the lean production system. *Sloan Management Review*, *30*(1), 41. https://doi.org/10.1108/01443570911005992

Küpper, G., & Batt, P. J. (2009). Barriers to the adoption of quality assurance systems in the food and beverage sector. *Stewart Postharvest Review*, *5*(3), 1–5. https://doi.org/10.2212/spr.2009.3.2

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for

categorical data. *Biometrics*, *33*(1), 159. https://doi.org/10.2307/2529310

Latif, I. A., Mohamed, Z., Sharifuddin, J., & Mahir, A. (2014). A comparative analysis of global halal certification requirements. *Journal of Food Products Marketing*, *20*(1), 85–101. https://doi.org/10.1080/10454446.2014.921869

Lavelle, E., Vuk, J., & Barber, C. (2013). Twelve tips for getting started using mixed methods in medical education research. *Medical Teacher*, *35*(4), 272–276. https://doi.org/10.3109/0142159X.2013.759645

Le, S., Bazger, W., Hill, A. R., & Wilcock, A. (2014). Awareness and perceptions of food safety of artisan cheese makers in Southwestern Ontario: A qualitative study. *Food Control*, *41*, 158–167. https://doi.org/10.1016/j.foodcont.2014.01.007

Lee, S. M., Rho, B.-H., & Lee, S.-G. (2003). Impact of Malcolm Baldrige National Quality Award Criteria on organizational quality performance. *International Journal of Production Research*, *41*(9), 2003–2020. https://doi.org/10.1080/0020754031000077329

Leidecker, Joel K. ; Bruno, A. V. (1984). Identifying and using critical success factors. *Long Range Planning*, *17*(1), 23–32.

Lever, J., & Miele, M. (2012). The growth of halal meat markets in Europe: An exploration of the supply side theory of religion. *Journal of Rural Studies*, *28*(4), 528–537. https://doi.org/10.1016/j.jrurstud.2012.06.004

Liao, H. T., Enke, D., & Wiebe, H. (2004). An expert advisory system for the ISO 9001 quality system. *Expert Systems with Applications*, *27*(2), 313–322. https://doi.org/10.1016/j.eswa.2004.02.006

Lipes, J. (2013, January 18). Foods mislabeled as halal imports. *Radio Free Asia*. Retrieved from www. rfa.org/english/news/uyghur/halal-01182013161229.html

Lissitz, R. W., & Green, S. B. (1975). Effect of the number of scale points on reliability: A Monte Carlo approach. *Journal of Applied Psychology*, *60*(1), 10–13. https://doi.org/10.1037/h0076268

Liu, O. L., & Rijmen, F. (2008). A modified procedure for parallel analysis of ordered categorical data. *Behavior Research Methods*, *40*(2), 556–562. https://doi.org/10.3758/BRM.40.2.556

Liu, Y. (2015). The review of empowerment leadership. *Open Journal of Business and Management Open Journal of Business and Manage-Ment*, *3*(3), 476–482. https://doi.org/10.4236/ojbm.2015.34049

Lo, V., & Humphreys, P. (2000). Project management benchmarks for SMEs implementing ISO 9000. *Benchmarking: An International Journal*, *7*(4), 247–260. https://doi.org/10.1108/14635770010378891

Lowe, N. (2008). Product Recall—Avoid, Manage and Survive. In *Conference Presentation at Food Manufacture Conference*. Warwick.

Luning, P. A., Bango, L., Kussaga, J., Rovira, J., & Marcelis, W. J. (2008). Comprehensive analysis and differentiated assessment of food safety control systems: a diagnostic instrument. *Trends in Food Science & Technology*, *19*(10), 522–534. https://doi.org/10.1016/j.tifs.2008.03.005

Luning, P. A., Chinchilla, a. C., Jacxsens, L., Kirezieva, K., & Rovira, J. (2013). Performance of safety management systems in Spanish food service establishments in view of their context characteristics. *Food Control*, *30*(1), 331–340. https://doi.org/10.1016/j.foodcont.2012.06.040

Luning, P. A., Jacxsens, L., Rovira, J., Osés, S. M., Uyttendaele, M., & Marcelis, W. J. (2011). A concurrent diagnosis of microbiological food safety output and food safety management system performance: Cases from meat processing industries. *Food Control*, *22*(3–4), 555–565. https://doi.org/10.1016/j.foodcont.2010.10.003

Luning, P. A., Kirezieva, K., Hagelaar, G., Rovira, J., Uyttendaele, M., & Jacxsens, L. (2013). Performance assessment of food safety management systems in animal-based food companies in view of their context characteristics: A European study. *Food Control*, 1–12. https://doi.org/10.1016/j.foodcont.2013.09.009

Luning, P. A., & Marcelis, W. J. (2007). A conceptual model of food quality management functions based on a techno-managerial approach. *Trends in Food Science & Technology*, *18*(3), 159–166. https://doi.org/https://doi.org/10.1016/j.tifs.2006.10.021

Luning, P. A., & Marcelis, W. J. (2009a). A food quality management research methodology integrating technological and managerial theories. *Trends in Food Science & Technology*, *20*(1), 35–44. https://doi.org/10.1016/j.tifs.2008.09.013

Luning, P. A., & Marcelis, W. J. (2009b). *Food quality management: Techno-managerial principles and practices*. The Netherlands: Wageningen Academic Publishers.

Luning, P. A., Marcelis, W. J., & Jongen, W. M. F. (2002). *Food quality management: a techno-managerial approach*. Wageningen: Wageningen Pers.

Lynch, R. a, Elledge, B. L., Griffith, C. J., & Boatright, D. T. (2003). A comparison of food safety knowledge among restaurant managers, by source of training and experience, in Oklahoma County, Oklahoma. *Journal of Environmental Health*, *66*(2), 9–14, 26. https://doi.org/10.2134/ael2015.10.0007

Lynn, M. R. (1986). Determination and Quantification Of Content Validity. *Nursing Research*, *35*(6), 382–386. https://doi.org/10.1097/00006199-198611000-00017

Macheka, L., Angeline, F., Tambudzai, R., Mubaiwa, J., & Kuziwa, L. (2013). Barriers, benefits and motivation factors for the implementation of food safety management system in the food sector in Harare Province , Zimbabwe. *Food Control*, *34*(1), 126–131. https://doi.org/10.1016/j.foodcont.2013.04.019

Macinati, M. S. (2008). The relationship between quality management systems and organizational performance in the Italian National Health Service. *Health Policy*, *85*(2), 228–241. https://doi.org/10.1016/j.healthpol.2007.07.013

MacKelprang, A. W., Jayaram, J., & Xu, K. (2012). The influence of types of training on service system performance in mass service and service shop operations. *International Journal of Production Economics*, *138*(1), 183–194. https://doi.org/10.1016/j.ijpe.2012.03.022

MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology*, *90*(4), 710–730. https://doi.org/10.1037/0021-9010.90.4.710

Mady, M. T. (2009). Quality management practices: An empirical investigation of associated constructs in two Kuwaiti industries. *International Journal of Quality & Reliability Management*, *26*(3), 214–233. https://doi.org/10.1108/02656710910936708

Magd, H. (2006). An investigation of ISO 9000 adoption in Saudi Arabia. *Managerial Auditing Journal*, *21*(2), 132–147. https://doi.org/https://doi.org/10.1108/02686900610639284

Magd, H. (2008). ISO 9001: 2000 in the Egyptian manufacturing sector: perceptions and perspectives. *International Journal of Quality & Reliability Management*, *25*(2), 173–200. https://doi.org/https://doi.org/10.1108/02656710810846934

Mahajan, R., Garg, S., & Sharma, P. B. (2014). Food safety in India: a case of Deli Processed Food Products Ltd. *International Journal of Productivity and Quality Management*, *14*(1), 1. https://doi.org/10.1504/IJPQM.2014.063161

Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal*, *22*(5), 387–401.

Maldonado-Siman, E., Bai, L., Ramírez-Valverde, R., Gong, S., & Rodríguez-de Lara, R. (2014). Comparison of implementing HACCP systems of exporter Mexican and Chinese meat enterprises. *Food Control*, *38*(1), 109–115. https://doi.org/10.1016/j.foodcont.2013.10.017

Maldonado-Siman, E., Bernal-AlCantara, R., Cadena-Meneses, J. A., Altamirano-Cardenas, J. R., & Martinez-Hernandez, P. A. (2014). Implementation of Quality Systems by Mexican Exporters of Processed Meat. *Journal of Food Protection*, *77*(12), 2148–2152. https://doi.org/10.4315/0362-028X.JFP-14-003

Malec, J. F., Torsher, L. C., Dunn, W. F., Wiegmann, D. A., Arnold, J. J., Brown, D. A., & Phatak, V. (2007). The mayo high performance teamwork scale: reliability and validity for evaluating key crew resource management skills. *Simulation in Healthcare*, *2*(1), 4–10. https://doi.org/10.1097/SIH.0b013e31802b68ee

Mallak, L. A., Bringelson, L. S., & Lyth, D. M. (1997). A cultural study of ISO 9000 certification. *International Journal of Quality & Reliability Management*, *14*(4), 328–348. https://doi.org/10.1108/02656719710170611

Mann, R., & Adebanjo, O. (1998). Best practices in the food and drinks industry. *British Food Journal*, *101*(3), 238–253. https://doi.org/10.1108/14635779810226207

Mann, R., Adebanjo, O., & Kehoe, D. (1999). An assessment of management systems and business performance in the UK food and drinks industry. *British Food Journal*, *101*(1), 5–21. https://doi.org/https://doi.org/10.1108/00070709910251432

Mann, R., & Kehoe, D. (1994). An evaluation of the effects of quality improvement activities on business performance. *International Journal of Quality & Reliability Management*, *11*(4), 29–44.

Manning, L. (2007). Food safety and brand equity. *British Food Journal*, *109*(7), 496–510.

Manzouri, M., Ab-Rahman, M. N., Zain, C. R. C. M., & Jamsari, E. A. (2014). Increasing production and eliminating waste through lean tools and techniques for Halal food companies. *Sustainability (Switzerland)*, *6*(12), 9179–9204. https://doi.org/10.3390/su6129179

Marzuki, S. Z. S., Hall, C. M., & Ballantine, P. W. (2012a). Restaurant manager and halal certification in Malaysia. *Journal of Foodservice Business Research*, *15*(2), 195–214. https://doi.org/10.1080/15378020.2012.677654

Marzuki, S. Z. S., Hall, C. M., & Ballantine, P. W. (2012b). Restaurant managers' perspectives on halal certification. *Journal of Islamic Marketing*, *3*(1), 47–58. https://doi.org/10.1108/17590831211206581

Marzuki, S. Z. S., Hall, C. M., & Ballantine, P. W. (2014). Measurement of restaurant manager expectations toward halal certification using factor and cluster analysis. *Procedia - Social and Behavioral Sciences*, *121*(4), 291–303. https://doi.org/10.1016/j.sbspro.2014.01.1130

Mata, F. J., Fuerst, W. L., & Barney, J. B. (1995). Information technology and sustained competitive advantage: a resource-based analysis. *MIS Quarterly*, *19*(4), 487. https://doi.org/10.2307/249630

Mauléon, C., & Bergman, B. (2009). Exploring the epistemological origins of Shewhart's and Deming's theory of quality: Influences from CI Lewis' conceptualistic pragmatism. *International Journal of Quality And*. Retrieved from http://www.emeraldinsight.com/doi/abs/10.1108/17566690910971436

Maull, R., Brown, P., & Cliffe, R. (2001). Organisational culture and quality improvement. *International Journal of Operations & Production Management*, *21*(3), 302–326. https://doi.org/10.1108/01443570110364614

McCluskey, J., & Swinnen, J. (2011). The media and food-risk perceptions. *EMBO Reports*, *12*(7), 624–629. https://doi.org/10.1038/embor.2011.118

Mcfarlin, D., & Coget, J. F. (2013). How does empowerment work in high and low power-distance cultures? *Academy of Management Perspectives*, *27*(2). https://doi.org/10.5465/amp.2013.0063

Mele, C., & Colurcio, M. (2006). The evolving path of TQM: towards business excellence and stakeholder value. *International Journal of Quality & Reliability*

Management, *23*(5), 464–489. https://doi.org/10.1108/02656710610664569

Mensah, L. D., & Julien, D. (2011). Implementation of food safety management systems in the UK. *Food Control*, *22*(8), 1216–1225. https://doi.org/10.1016/j.foodcont.2011.01.021

Merican, Z. (2000). The role of government agencies in assessing hazard analysis critical control points (HACCP)-the Malaysian procedure. *Food Control*, *11*(5), 371–372. https://doi.org/10.1016/S0956-7135(99)00095-X

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research : a guide to design and implementation*. New Jersey: John Wiley & Sons.

Mgonja, J. T., Luning, P. A., & Van der Vorst, J. G. a. J. (2013). Diagnostic model for assessing traceability system performance in fish processing plants. *Journal of Food Engineering*, *118*(2), 188–197. https://doi.org/10.1016/j.jfoodeng.2013.04.009

Mi Dahlgaard Park, S. (2008). Reviewing the European excellence model from a management control view. *The TQM Journal*, *20*(2), 98–119. https://doi.org/10.1108/17542730810857345

Mickey. (2016). Halal fraud among many food certification fraud schemes. Retrieved September 30, 2016, from https://matchfinancial.com/moneyblog/halal-fraud/

Miguel, L. (2015). ISO 9001 Quality Management Systems through the Lens of Organizational Culture. *Quality Management*, *16*(148), 54–58.

Minkus-McKenna, D. (2007). The pursuit of halal. *Progressive Grocer*, *86*(17), 42.

Mitchell, R. T. (1998). Why HACCP fails. *Food Control*, *9*(2–3), 101. https://doi.org/10.1016/S0956-7135(98)00084-X

MITI. (2017). *MITI weekly bulletin*. Kuala Lumpur. Retrieved from http://www.miti.gov.my/miti/resources/MITI Weekly Bulletin/Weekly_BulletinMITI_Weekly_Bulletin_Volume_441_-_04_July_2017.pdf

Mohamed, Z., Shamsudin, M. N., & Rezai, G. (2013). The effect of possessing information about halal logo on consumer confidence in Malaysia. *Journal of International Food and Agribusiness Marketing*, *25*(SUPPL1), 73–86. https://doi.org/10.1080/08974438.2013.800008

Mohammad Mosadeghrad, A. (2014). Why TQM programmes fail? A pathology approach. *The TQM Journal*, *26*(2), 160–187. https://doi.org/10.1108/TQM-12-2010-0041

Mohd, Akram Dahaman, D., Abdul Rahman, N. N., Ahmad, R., Mohd Nor, M. R., & Ismail, M. S. (2012). Changes and differences in fatwa from Malaysia and Singapore contexts. *Middle-East Journal of Scientific Research*, *12*(2), 204–214. https://doi.org/10.5829/idosi.mejsr.2012.12.2.1684

Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, *2*(3), 192–222. https://doi.org/10.1287/isre.2.3.192

Morse, J. M. (2015). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative Health Research*, *25*(9), 1212–1222. https://doi.org/10.1177/1049732315588501

Mortimore, S. E. (2000). An example of some procedures used to assess HACCP systems within the food manufacturing industry. *Food Control*, *11*(5), 403–413. https://doi.org/10.1016/S0956-7135(99)00051-1

Mortimore, S. E. (2001). How to make HACCP really work in practice. *Food Control*, *12*(4), 209–215. https://doi.org/10.1016/S0956-7135(01)00017-2

Mortimore, S. E., & Wallace, C. A. (1998). *HACCP: A practical approach*. Gaithersburg, MD: Aspen Publishers Inc.

Motarjemi, Y., & Käferstein, F. (1999). Food safety, Hazard Analysis and Critical Control Point and the increase in foodborne diseases: a paradox? *Food Control*, *10*(4–5), 325–333.

Motarjemi, Y., Moy, G., & Todd, E. (2014). *Encyclopedia of Food Safety*. London: Elsevier.

Muñoz-Colmenero, M., Martínez, J. L., Roca, A., & Garcia-Vazquez, E. (2016). Detection of different DNA animal species in commercial candy products. *Journal of Food Science*, *81*(3), 801–809. https://doi.org/10.1111/1750-3841.13225

Murphy, W. H. (2016). Small and mid-sized enterprises (SMEs) quality management (QM) research (1990–2014): a revealing look at QM's vital role in making SMEs stronger. *Journal of Small Business and Entrepreneurship*, *28*(5), 345–360. https://doi.org/10.1080/08276331.2016.1166554

Musa, N., Muslim, N., Omar, M. F. C., & Husin, A. (2014). The Cadbury Controversy: Blessings in Disguise? In Z. Zakaria, N. A. A. Hamid, & S. Z. Ismail (Eds.), *Contemporary Issues and Development in the Global Halal Industry* (pp. 165–175). https://doi.org/10.1007/978-981-10-1452-9

Musaiger, A. O. (1993). Socio-cultural and economic factors affecting food consumption patterns in the Arab countries. *The Journal of the Royal Society for the Promotion of Health*, *113*(2), 68–74. https://doi.org/10.1177/146642409311300205

Nahm, A. Y., Rao, S. S., Solis-Galvan, L. E., & Ragu-Nathan, T. S. (2002). The Q-Sort Method: Assessing Reliability And Construct Validity Of Questionnaire Items At A Pre-Testing Stage. *Journal of Modern Applied Statistical Methods*, *1*(1), 114–125. https://doi.org/10.22237/jmasm/1020255360

Nair, A. (2006). Meta-analysis of the relationship between quality management practices and firm performance-implications for quality management theory

development. *Journal of Operations Management*, *24*(6), 948–975. https://doi.org/10.1016/j.jom.2005.11.005

Nanyunja, J., Jacxsens, L., Kirezieva, K., Kaaya, A. N., Uyttendaele, M., & Luning, P. A. (2015). Assessing the status of food safety management systems for fresh produce production in East Africa: evidence from certified green bean farms in Kenya and noncertified hot pepper farms in Uganda. *Journal of Food Protection*, *78*(6), 1081–1089. https://doi.org/10.4315/0362-028X.JFP-14-364

Nasa, A. (2017). Malaysia eyes RM50b halal exports in 2020. Retrieved January 15, 2018, from https://www.nst.com.my/business/2017/08/271634/malaysia-eyes-rm50b-halal-exports-2020

Nasir, K. M., & Pereira, A. A. (2008). Defensive dining: Notes on the public dining experiences in Singapore. *Contemporary Islam*, *2*, 61–73. https://doi.org/10.1007/s11562-007-0033-8

Nasohah, Z. (2005). Undang-undang penguatkuasaan fatwa di Malaysia. *Islamiyyat : Jurnal Antarabangsa Pengajian Islam*, *27*(1), 25–44.

National Institute of Standards and Technology (NIST). (2002). *Malcolm Baldrige National Quality Award Criteria*. U.S. Department of Commerce.

Nawi, N. M., Izati, N., & Nasir, M. (2016). Consumers ' attitude toward the Food Safety Certificate (FSC) in Malaysia. *Journal of Food Products Marketing*, *4446*(June), 140–150. https://doi.org/10.1080/10454446.2014.921879

Neio Demirci, M., Soon, J. M., & Wallace, C. A. (2016). Positioning food safety in Halal assurance. *Food Control*, *70*, 257–270. https://doi.org/10.1016/j.foodcont.2016.05.059

Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling Procedures: Issues and Applications - Richard G. Netemeyer, William O. Bearden, Subhash Sharma - Google Books*. California: Sage Publications.

New Straits Times. (2013, August 1). 3 chicken abattoirs given stern warning for not adhering to Halal standards. Retrieved from http://www.nst.com.my/latest/3-chicken-abattoirs-given-stern-warning-for-not-adhering-to-halal-standards-1.330763#ixzz2yC2zbrHw

New Straits Times. (2014, March 12). Chicken not slaughtered the halal way. *New StraitsTimes*. Retrieved from http://www.nst.com.my/streets/northern/chicken-not-slaughtered-the-halal-way-1.506222

Newslow, D. (2014). *Food Safety Management Programs Applications, Best Practices, and Compliance*. Florida: Taylor & Francis Group.

Neyestani, B., & Juanzon, J. (2016). Identification of a set of appropriate critical success factors (CSFS) for successful TQM implementation in construction, and other industries. *International Journal of Advanced Research*, *4*(11), 1581–1591. https://doi.org/10.21474/IJAR01/2248

Ngah, A. H., Zainuddin, Y., & Ramayah, T. (2015). Barriers and enablers in adopting of Halal warehousing. *Journal of Islamic Marketing*, *6*(3), 354–376. https://doi.org/https://doi.org/10.1108/JIMA-03-2014-0027

Ngah, A. H., Zainuddin, Y., & Thurasamy, R. (2010). Modelling of halal warehouse Adoption using partial least squares. *International Journal of Contemporary Business Management*, *1*(1), 71–86. https://doi.org/10.13140/RG.2.2.36373.52962

Ngah, A. H., Zainuddin, Y., & Thurasamy, R. (2014). Contributing factors of Halal warehouse adoption. *Management and Technology in Knowledge, Service, Tourism & Hospitality*, 89–94. https://doi.org/10.1201/b16700-20

Nguyen, T., Wilcock, A., & Aung, M. (2004a). Food safety and quality systems in Canada: An exploratory study. *International Journal of Quality & Reliability Management*, *21*(6), 655–671. https://doi.org/10.1108/S1479-3563(2012)000012B007

Nguyen, T., Wilcock, A., & Aung, M. (2004b). Food safety and quality systems in Canada An exploratory study. *International Journal of Quality & Reliability Management*, *21*(6), 655–671. https://doi.org/10.1108/02656710410542052

Noordin, N., Md Noor, N. L., Hashim, M., & Samicho, Z. (2009). Value chain of halal certification system: A case of the Malaysia halal industry. In *European and Mediterranean Conference on Information Systems 2009 (EMCIS2009)* (Vol. 2009, pp. 1–14).

Noordin, N., Md Noor, N. L., & Samicho, Z. (2014). Strategic approach to Halal certification system: an ecosystem perspective. *Procedia – Social and Behavioral Sciences*, *121*(1), 79–95.

Noordin, N., Noor, N. L. M., & Samicho, Z. (2012). Applying the work systems method to investigate the operational efficiency of the halal certification system. In *19th IBIMA Conference on Innovation Vision 2020: Sustainable Growth, Entrepreneurship and Economic Development* (Vol. 1, pp. 482–494). Spain.

Noronha, C. (2002). *The theory of culture-specific Total Quality Management*. London: Palgrave Macmillan UK. https://doi.org/10.1057/9780230512351

Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.

O'cathain, A., Murphy, E., & Nicholl, J. (2008). The quality of mixed methods studies in health services research. *Journal of Health Services Research & Policy*, *13*(2), 92–98. https://doi.org/10.1258/jhsrp.2007.007074

O'Cathain, A., Murphy, E., & Nicholl, J. (2007). Why, and how, mixed methods research is undertaken in health services research in England: a mixed methods study. *BMC Health Services Research*, *7*, 85. https://doi.org/10.1186/1472-6963-7-85

O'Neill, P., Sohal, A., & Teng, C. W. (2016). Quality management approaches and their impact on firms′ financial performance–An Australian study. *International*

Journal of Production Economics, *171*, 381–393. https://doi.org/10.1016/J.IJPE.2015.07.015

Oakland, J. S. (2000). *TQM: Text with cases*. *Butterworth-Heinemann*.

Oakland, J. S. (2011). Leadership and policy deployment: The backbone of TQM. *Total Quality Management & Business Excellence*, *22*(5), 517–534. https://doi.org/10.1080/14783363.2011.579407

Obeng, K., & Ugboro, I. (2008). Effective strategic planning in public transit systems. *Transportation Research Part E-Logistics and Transportation Review*, *44*(3), 420–439. https://doi.org/10.1016/j.tre.2006.10.008

Omar, N. A., Zainol, Z., Thye, C. K., Ahmad Nordin, N., & Nazri, M. A. (2017). Halal violation episode: does severity and trust recovery impact negative consumption behavior? *Journal of Islamic Marketing*, *8*(4), 686–710. https://doi.org/10.1108/JIMA-10-2015-0081

Osés, S. M., Luning, P. A., Jacxsens, L., Santillana, S., Jaime, I., & Rovira, J. (2012). Food safety management system performance in the lamb chain. *Food Control*, *25*(2), 493–500. https://doi.org/10.1016/j.foodcont.2011.11.018

Othman, B., Md. Shaarani, S., & Bahron, A. (2017). The influence of knowledge, attitude and sensitivity to government policies in halal certification process on organizational performance. *Journal of Islamic Marketing*, *8*(3), 393–408. https://doi.org/10.1108/JIMA-09-2015-0067

Othman, B., Shaarani, S. M., & Bahron, A. (2016). Evaluation of knowledge, halal quality assurance practices and commitment among food industries in Malaysia. *British Food Journal*, 651–663. https://doi.org/10.1108/BFJ-12-2015-0496

Othman, R., Arshad, R., Aris, N. A., & Arif, S. M. M. (2015). Organizational Resources and Sustained Competitive Advantage of Cooperative Organizations in Malaysia. *Procedia - Social and Behavioral Sciences*, *170*, 120–127. https://doi.org/10.1016/j.sbspro.2015.01.021

Öztaş, A., Güzelsoy, S., & Tekinkuş, M. (2007). Development of quality matrix to measure the effectiveness of quality management systems in Turkish construction industry. *Building and Environment*, *42*, 1219–1228. https://doi.org/10.1016/j.buildenv.2005.12.017

Palani Natha Raja, M., Deshmukh, S. G., & Wadhwa, S. (2007). Quality award dimensions: a strategic instrument for measuring health service quality. *International Journal of Health Care Quality Assurance*, *20*(5), 363–378. https://doi.org/10.1108/09526860710763299

Palmberg, K. (2009). Exploring process management: are there any widespread models and definitions? *The TQM Journal*, *21*(2), 203–215. https://doi.org/10.1108/17542730910938182

Panisello, P. J., & Quantick, P. C. (2001). Technical barriers to Hazard Analysis Critical Control Point (HACCP). *Food Control*, *12*(3), 165–173.

https://doi.org/10.1016/S0956-7135(00)00035-9

Parast, M. M., & Adams, S. G. (2012). Corporate social responsibility, benchmarking, and organizational performance in the petroleum industry: A quality management perspective. *International Journal of Production Economics*, *139*(2), 447–458.

Parayitam, S., & Phelps, L. (2007). Strategic decision-making in the healthcare industry: the effects of physician executives on decision outcomes. *Management Research*. Retrieved from http://www.emeraldinsight.com/doi/pdf/10.1108/01409170710736329

Parker, M., & Slaughter, J. (1993). Should the Labour movement buy TQM? *Journal of Organizational Change Management*, *6*(4), 43–56. https://doi.org/10.1108/09534819310042731

Pascual Serrano, D., Vera Pasamontes, C., & Girón Moreno, R. (2016). Modelos animales de dolor neuropático. *DOLOR*, *31*(2), 70–76. https://doi.org/10.1017/CBO9781107415324.004

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. California: Sage Publications. https://doi.org/10.1002/nur.4770140111

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. *Nurse Education Today* (3rd ed.). London: Sage Publications.

Patton, M. Q., & Schwandt, T. A. (2014). *Qualitative evaluation and research methods*. California: Sage Publications.

Peng, D. X., & Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, *30*(6), 467–480. https://doi.org/10.1016/j.jom.2012.06.002

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, *14*(3), 179–191. https://doi.org/10.1002/smj.4250140303

Phan, A. C., Abdallah, A. B., & Matsui, Y. (2011). Quality management practices and competitive performance: Empirical evidence from Japanese manufacturing companies. *International Journal of Production Economics*, *133*(2), 518–529.

Pituch, K. A., & Stevens, J. P. (2015). *Applied multivariate statistics for the social sciences: analyses with SAS and IBM'S SPSS* (6th ed.). New York: Taylor & Francis.

Plano Clark, V. L., & Sanders, K. (2015). The use of visual displays in mixed methods research. In M. T. McCrudden, G. Schraw, & C. Buckendahl (Eds.), *Strategies for effectively integrating quantitative and qualitative components of a study*. New York: Sage Publications.

Plotnikoff, R. (1994). *Application of protection motivation theory to coronary heart disease risk factor behaviour in three Australian samples: community adults,*

cardiac patients and school children. (PhD thesis). University of Newcastle.

Poksinska, B., Jörn Dahlgaard, J., & Antoni, M. (2002). The state of ISO 9000 certification: a study of Swedish organizations. *The TQM Magazine*, *14*(5), 297–306. https://doi.org/10.1108/09544780210439734

Powell, D. A., Erdozain, S., Dodd, C., Costa, R., Morley, K., & Chapman, B. J. (2013). Audits and inspections are never enough: A critique to enhance food safety. *Food Control*, *30*(2), 686–691. https://doi.org/10.1016/j.foodcont.2012.07.044

Powell, T. C. (1995). Total Quality Management as Competitive Advantage: A Review and Emperical Study. *Strategic Management Journal*, *16*(1), 15–37.

Powell, W. W., & DiMaggio, P. (1991). *The New institutionalism in organizational analysis*. Chicago: University of Chicago Press.

Prabowo, S., Abd Rahman, A., Ab Rahman, S., & Samah, A. A. (2015). Revealing factors hindering halal certification in East Kalimantan Indonesia. *Journal of Islamic Marketing*, *6*(2), 268–291. https://doi.org/10.1108/JIMA-05-2014-0040

Prajogo, D. I., Chowdhury, M., Yeung, A. C. L., & Cheng, T. C. E. (2012). The relationship between supplier management and firms operational performance: A multi-dimensional perspective. *International Journal of Production Economics*, *136*(1), 123–130. https://doi.org/10.1016/j.ijpe.2011.09.022

Prajogo, D. I., & Hong, S. W. (2008). The effect of TQM on performance in R&D environments: A perspective from South Korean firms. *Technovation*, *28*(12), 855–863. https://doi.org/10.1016/j.technovation.2008.06.001

Prajogo, D. I., & McDermott, C. M. (2005). The relationship between total quality management practices and organizational culture. *International Journal of Operations & Production Management*, *25*(11), 1101–1122. https://doi.org/10.1108/01443570510626916

Prajogo, D. I., & Sohal, A. S. (2003). The relationship between TQM practices, quality performance, and innovation performance: An empirical examination. *International Journal of Quality & Reliability Management*, *20*(8), 901–918. https://doi.org/10.1108/02656710310493625

Prasopkittikun, T., Tilokskulchai, F., & Sinsuksai, N. (2006). Self-efficacy in Infant Care Scale : Development and psychometric testing. *Nursing and Health Sciences*, *8*(2006), 44–50. https://doi.org/10.1111/j.1442-2018.2006.00266.x

Press Association. (2015). Abattoir clips highly regrettable. *Daily Mail*. Retrieved from www.dailymail.co.uk/wires/pa/article-2937224/Halal-slaughterhouse-video-probed.html

Psomas, E. L., & Antony, J. (2015). The effectiveness of the ISO 9001 quality management system and its influential critical factors in Greek manufacturing companies. *International Journal of Production Research*, *53*(7), 2089–2099. https://doi.org/10.1080/00207543.2014.965353

Psomas, E. L., & Fotopoulos, C. V. (2009). A meta analysis of ISO 9001:2000 research – findings and future research proposals. *International Journal of Quality and Service Sciences*, *1*(2), 128–144. https://doi.org/10.1108/17566690910971418

Psomas, E. L., & Fotopoulos, C. V. (2010). Total quality management practices and results in food companies. *International Journal of Productivity and Performance Management*, *59*(7), 668–687. https://doi.org/10.1108/17410401011075657

Psomas, E. L., Fotopoulos, C. V., & Kafetzopoulos, D. P. (2010). Critical factors for effective implementation of ISO 9001 in SME service companies. *Managing Service Quality*, *20*(5), 440–457. https://doi.org/10.1108/09604521011073731

Psomas, E. L., Fotopoulos, C. V., & Kafetzopoulos, D. P. (2011). Core process management practices, quality tools and quality improvement in ISO 9001 certified manufacturing companies. *Business Process Management Journal*, *17*(3), 437–460. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Psomas, E. L., & Jaca, C. (2016). The impact of total quality management on financial performance: Evidence from Spain. *International Journal of Quality & Reliability Management*, *33*(3). https://doi.org/10.1108/IJQRM-07-2014-0090

Psomas, E. L., Kafetzopoulos, D. P., & Fotopoulos, C. V. (2013). Developing and validating a measurement instrument of ISO 9001 effectiveness in food manufacturing SMEs. *Journal of Manufacturing Technology Management*, *24*(1), 52–77. https://doi.org/10.1108/17410381311287481

Psomas, E. L., Pantouvakis, A., & Kafetzopoulos, D. P. (2013). The impact of ISO 9001 effectiveness on the performance of service companies. *Managing Service Quality: An International Journal*, *23*(2), 149–164. https://doi.org/10.1108/09604521311303426

Punnakitikashem, P., Somsuk, N., Adebanjo, D., & Laosirihongthong, T. (2009). A review of theoretical perspectives in lean manufacturing implementation. In *2009 IEEE International Conference on Industrial Engineering and Engineering Management* (pp. 1204–1208). IEEE. https://doi.org/10.1109/IEEM.2009.5372988

Qijun, J., & Batt, P. J. (2016). Barriers and benefits to the adoption of a third party certified food safety management system in the food processing sector in Shanghai, China. *Food Control*, *62*, 89–96. https://doi.org/10.1016/j.foodcont.2015.10.020

Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management Science*, *29*(3), 363–377.

Rafida, A. R. N., Alina, A. R., Syamsul, H. K. M. W., Mashitoh, A. S., & Yusop, M. H. M. (2013). The Academia's Multidisciplinary Approaches in Providing Education, Scientific Training and Services to the Malaysian Halal Industry. *Middle-East Journal of Scientific Research*, *13*, 79–84. https://doi.org/10.5829/idosi.mejsr.2013.16.s.100213

Rahman, I. N. A., Saleh, R., Rahman, S. A., & Hashim, D. (2012). A Review on factors of non-compliance of halal standards among restaurant operators in Kuala Lumpur. *International Business Management*, *6*(6), 611–620. https://doi.org/10.3923/ibm.2012.611.620

Rahman, I. N. A., Saleh, R., Rahman, S. A., & Hashim, D. M. D. M. (2011). Factors contributing to non-compliance of the halal standard among restaurant operators in Malaysia. In *2nd International Conference on Business, Economics and Tourism Management* (Vol. 24, pp. 88–92). Singapore.

Rahman, M. M., Khatun, M., Rahman, M. H., & Ansary, N. P. (2014). Food safety issues in Islam. *Health, Safety and Environment*, *235*(1371), 1–14. https://doi.org/10.14196/hse.v2i6.144

Rahman, R. A., Mohamed, Z., Rezai, G., Shamsudin, N. M., & Sharifuddin, J. (2014). Exploring the OIC food manufacturer intention towards adopting Malaysian Halal certification. *American Journal of Food Technology*, *9*(5), 266–274.

Rajković, A., Smigic, N., Djekic, I., Popovic, D., Tomic, N., Krupezevic, N., … Jacxsens, L. (2017). The performance of food safety management systems in the raspberries chain. *Food Control*, *80*, 151–161. https://doi.org/10.1016/j.foodcont.2017.04.048

Ramírez Vela, A., & Martín Fernández, J. (2003). Barriers for the developing and implementation of HACCP plans: results from a Spanish regional survey. *Food Control*, *14*(5), 333–337. https://doi.org/10.1016/S0956-7135(02)00098-1

RASFF portal. (2013). Rapid Alert System for Food and Feed. Retrieved January 1, 2018, from https://ec.europa.eu/food/sites/food/files/safety/docs/rasff_annual_report_2013.pdf

Razalli, M. R., Abdullah, S., & Yusoff, R. Z. (2013). The influence of human factors in halal certification process on organizational performance. *World Review of Business Research*, *3*(3), 157–166.

Razalli, M. R., Yusoff, R. Z., & Roslan, M. W. M. (2013). A framework of halal certification practices for hotel industry. *Asian Social Science*, *9*(11), 316–326. https://doi.org/10.5539/ass.v9n11p316

Redshaw, B. (2000). Evaluating organisational effectiveness. *Industrial and Commercial Training*, *32*(7), 245–248. https://doi.org/https://doi.org/10.1108/00197850010379794

Regan, Á., Raats, M., Shan, L. C., Wall, P. G., & McConnon, A. (2014). Risk communication and social media during food safety crises: a study of stakeholders' opinions in Ireland. *Journal of Risk Research*, *19*(1), 1–15. https://doi.org/10.1080/13669877.2014.961517

Regenstein, J. M., Chaudry, M. M., & Regenstein, C. E. (2003). The kosher and halal food laws. *Comprehensive Reviews in Food Science and Food Safety*, *2*(3), 111–127. https://doi.org/10.1111/j.1541-4337.2003.tb00018.x

Reinartz, W. J., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, *26*(4), 332–344. https://doi.org/10.1016/J.IJRESMAR.2009.08.001

Ren, Y., He, Z., & Luning, P. A. (2016). A systematic assessment of quality assurance-based food safety management system of Chinese edible oil manufacturer in view of context characteristics. *Total Quality Management and Business Excellence*, *27*(7–8), 897–911. https://doi.org/10.1080/14783363.2016.1187995

Rezai, G., Mohamed, Z., & Shamsudin, M. N. (2012). Non-Muslim consumers ' understanding of Halal principles in Malaysia. *Journal of Islamic Marketing*, *3*(1), 35–46. https://doi.org/10.1108/17590831211206572

Riaz, M. N., & Chaudry, M. M. (2004). *Halal food production*. Florida: CRC Press LCC.

Richards, T., & Richards, L. (1991). The NUDIST qualitative data analysis system. *Qualitative Sociology*, *14*(4), 307–324. https://doi.org/10.1007/BF00989643

Ringle, C. M., Wende, S., & Becker, J. M. (2015). *SmartPLS 3*. Boenningstedt: SmartPLS GmbH. Retrieved from http://www.smartpls.com

Roberto, C. D., Brandão, S. C. C., & Barbosa da Silva, C. A. (2006). Costs and investments of implementing and maintaining HACCP in a pasteurized milk plant. *Food Control*, *17*(8), 599–603. https://doi.org/10.1016/j.foodcont.2004.05.011

Rodríguez-Escobar, J. A., Gonzalez-Benito, J., & Martínez-Lorente, A. R. (2006). An analysis of the degree of small companies' dissatisfaction with ISO 9000 certification. *Total Quality Management & Business Excellence*, *17*(4), 507–521. https://doi.org/10.1080/14783360500528304

Röhr, A., Lüddecke, K., Drusch, S., Müller, M. J., & Alvensleben, R. v. (2005). Food quality and safety—consumer perception and public health concern. *Food Control*, *16*(8), 649–655. https://doi.org/10.1016/j.foodcont.2004.06.001

Rojas, R. R. (2000). A review of models for measuring organizational effectiveness among for-profit and nonprofit organizations. *Nonprofit Management and Leadership*, *11*(1), 97–104.

Rorty, R. (1999). *Philosophy and social hope*. London: Penguin Group (USA) LLC.

Rotaru, G., Sava, N., Borda, D., & Stanciu, S. (2005). Food quality and safety management systems: A brief analysis of the individual and integrated approaches. *Agroalimentary Processes and Technologies*, *XI*(1), 229–236.

Rowan, N., & Wulff, D. (2007). Using qualitative methods to inform scale development. *The Qualitative Report*, *12*(3), 450–466. https://doi.org/https://doi.org/10.1177/1362361315601012

Rungtusanatham, M., Forza, C., Filippini, R., & Anderson, J. (1998). A replication

study of a theory of quality management underlying the Deming management method: Insides from an Italian context. *Journal of Operations Management*, *17*(1), 77–95. https://doi.org/https://doi.org/10.1016/S0272-6963(98)00032-1

Rungtusanatham, M., Salvador, F., Forza, C., & Choi, T. Y. (2003). Supply-chain linkages and operational performance: A resource-based-view perspective. *International Journal of Operations & Production Management*, *23*(9), 1084–1099. https://doi.org/10.1108/01443570310491783

Rutsaert, P., Regan, Á., Pieniak, Z., McConnon, A., Moss, A., Wall, P., & Verbeke, W. (2013). The use of social media in food risk and benefit communication. *Trends in Food Science and Technology*, *30*(1), 84–91. https://doi.org/10.1016/j.tifs.2012.10.006

Sadikoglu, E., & Olcay, H. (2014). The effects of total quality management practices on performance and the reasons of and the barriers to TQM practices in Turkey. *Advances in Decision Sciences*, *2014*. https://doi.org/10.1155/2014/537605

Sadikoglu, E., & Zehir, C. (2010). Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: An empirical study of Turkish firms. *International Journal of Production Economics*, *127*(1), 13–26. https://doi.org/10.1016/j.ijpe.2010.02.013

Saghiri, S. (2011). A structural approach to assessing postponement strategies: Construct development and validation. *International Journal of Production Research*, *49*(21), 6427–6450. https://doi.org/10.1080/00207543.2010.531774

Salama. (2015). Malaysia: Jakim appoints TPM Biotech as halal panel laboratory. Retrieved March 31, 2017, from http://halalfocus.net/malaysia-jakim-appoints-tpm-biotech-as-halal-panel-laboratory/

Sale, J. E. M., Lohfeld, L. H., & Brazil, K. (2002). Revisiting the quantitative-qualitative debate: implications for mixed-methods research. *Quality and Quantity*, *36*(1), 43–53. https://doi.org/10.1023/A:1014301607592

Sampaio, P., Saraiva, P., & Rodrigues, A. G. (2009a). ISO 9001 certification research : Questions , answers and approaches. *International Journal of Quality & Reliability Management*, *26*(1), 38–58. https://doi.org/10.1108/02656710910924161

Sampaio, P., Saraiva, P., & Rodrigues, A. G. (2009b). ISO 9001 certification research: questions, answers and approaches. *International Journal of Quality & Reliability Management*, *26*(1), 38–58. https://doi.org/10.1108/02656710910924161

Sampers, I., Toyofuku, H., Luning, P. A., Uyttendaele, M., & Jacxsens, L. (2012). Semi-quantitative study to evaluate the performance of a HACCP-based food safety management system in Japanese milk processing plants. *Food Control*, *23*(1), 227–233. https://doi.org/10.1016/j.foodcont.2011.07.018

Samson, D., & Terziovski, M. (1999). The relationship between total quality management practices and operational performance. *Journal of Operations*

Management, *17*(4), 393–409. https://doi.org/10.1016/S0272-6963(98)00046-1

Sandberg, W. R., & Hofer, C. W. (1987). Improving new venture performance: The role of strategy, industry structure, and the entrepreneur. *Journal of Business Venturing*, *2*(1), 5–28.

Santos-Vijande, M. L., & Álvarez-González, L. I. (2007). Innovativeness and organizational innovation in total quality oriented firms: The moderating role of market turbulence. *Technovation*, *27*(9), 514–532. https://doi.org/10.1016/j.technovation.2007.05.014

Saraph, J. V., Benson, P. G., & Schroeder, R. G. (1989). An Instrument for Measuring the Critical Factors of Quality Management. *Decision Sciences*, *20*(4), 810–829. https://doi.org/10.1111/j.1540-5915.1989.tb01421.x

Saravanan, R., & Rao, K. S. P. (2007). The impact of total quality service age on quality and operational performance: an empirical study. *The TQM Magazine*, *19*(3), 197–205. https://doi.org/10.1108/09544780710745621

Sarkis, J., Zhu, Q., & Lai, K. (2011). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, *130*(1), 1–15.

Sazelin, A., & Ridzwan, A. (2011). Food quality standards in developing quality human capital: An Islamic perspective. *African Journal of Business Management*, *5*(31), 12242–12248. https://doi.org/10.5897/AJBM10.1692

Schafer, J. (1999). Multiple imputation: a primer. *Statistical Methods in Medical Research*, *2802*(99), 3–15. https://doi.org/10.1191/096228099671525676

Schneider, S. C., & Barsoux, J.-L. (2003). *Managing across cultures*. Financial Times Prentice Hall.

Schonlau, M., Ronald D., J. F., & Elliott, M. N. (2002). *Conducting Research Surveys via E-mail and the Web*. RAND Corporation. Retrieved from https://books.google.com.my/books?id=dyJMxgV7JScC

Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie*, *69*(S2), 107–131. https://doi.org/10.1007/s11577-017-0454-1

Schreiber, J. (2017). *Politics, Piety, and Biomedicine: The Malaysian Transplant Venture*. transcript Verlag. Retrieved from https://books.google.com.my/books?id=OImsDgAAQBAJ

Scott, B. S., Wilcock, A. E., & Kanetkar, V. (2009). A survey of structured continuous improvement programs in the Canadian food sector. *Food Control*, *20*(3), 209–217. https://doi.org/10.1016/j.foodcont.2008.04.008

Seashore, S. E., & Yuchtman, E. (1967). Factorial analysis of organizational performance. *Administrative Science Quarterly*, 377–395.

Semos, A., & Kontogeorgos, A. (2007). HACCP implementation in northern Greece: Food companies' perception of costs and benefits. *British Food Journal*. https://doi.org/10.1108/00070700710718471

Sethi, V., & King, W. R. (1994). Development of measures to assess the extent to which an information technology application provides competitive advantage. *Management Science*, *40*(12), 1601–1627. https://doi.org/10.1287/mnsc.40.12.1601

Shafie, S., & Md Nor Othman. (2006). Halal Certificate: An International Marketing Issues and Challenges. In *Proceeding at the International IFSAM VIIIth World Congress* (pp. 28–30). Berlin.

Shah Alam, S., & Mohamed Sayuti, N. (2011). Applying the Theory of Planned Behavior (TPB) in *halal* food purchasing. *International Journal of Commerce and Management*, *21*(1), 8–20. https://doi.org/10.1108/10569211111111676

Shah, R., & Ward, P. T. (2007). Defining and developing measures of lean production. *Journal of Operations Management*, *25*(4), 785–805. https://doi.org/10.1016/j.jom.2007.01.019

Shaikh Mohd, S. M. S. (2006). Aspects of food safety from the islamic perspective. In S. M. . Shaikh Mohd & S. Azrina (Eds.), *Food and Technological Progress an Islamic Perspective*. Kuala Lumpur: MPH.

Sharif, N. (2005). Technology for development: The magic wand for intellectual entrepreneurs. *Knowledge Café for Intellectual Entrepreneurship*, *5*, 119–153.

Sharma, B. (2006). Quality management dimensions, contextual factors and performance: an empirical investigation. *Total Quality Management & Business Excellence*, *17*(9), 1231–1244. https://doi.org/10.1080/14783360600750519

Sharma, M., & Kodali, R. (2008). TQM implementation elements for manufacturing excellence. *The TQM Journal*, *20*(6), 599–621. https://doi.org/10.1108/17542730810909365

Shi, M., & Yu, W. (2013). Supply chain management and financial performance: literature review and future directions. *International Journal of Operations & Production Management*, *33*(10), 1283–1317.

Shilbury, D., & Moore, K. A. (2006). A study of organizational effectiveness for national Olympic sporting organizations. *Nonprofit and Voluntary Sector Quarterly*, *35*(1), 5–38.

Sila, I. (2007). Examining the effects of contextual factors on TQM and performance through the lens of organizational theories: An empirical study. *Journal of Operations Management*, *25*(1), 83–109. https://doi.org/10.1016/j.jom.2006.02.003

Sinar Harian. (2015, December 6). Sembelih ayam tak ikut syarak. *Sinar Harian*. Retrieved from http://www.sinarharian.com.my/edisi/selangor-kl/sembelih-ayam-tak-ikut-syarak-1.459127

Sipalan, J. (2014). After greenlight for Cadbury, Malay groups insist cops probe Jakim, Health Ministry. *Malaymail Online*. Retrieved from http://www.themalaymailonline.com/malaysia/article/after-greenlight-for-cadbury-malay-groups-insist-cops-probe-jakim-health-mi

Slife, B. D., & Williams, R. N. (1995). *What's behind the research? : discovering hidden assumptions in the behavioral sciences*. London: Sage Publications.

Sliwa, M., & Wilcox, M. (2008). Philosophical thought and the origins of quality management: uncovering conceptual underpinnings of W.A. Shewhart's ideas on quality. *Culture and Organization*, *14*(1), 97–106. https://doi.org/10.1080/14759550701864934

SME Corp Malaysia. (2017). SME Definitions. Retrieved November 12, 2017, from http://www.smecorp.gov.my/index.php/en/policies/2015-12-21-09-09-49/sme-definition

Soares, S., Amaral, J. S., Oliveira, M. B. P. P., & Mafra, I. (2013). A SYBR Green real-time PCR assay to detect and quantify pork meat in processed poultry meat products. *Meat Science*, *94*(1), 115–120. https://doi.org/10.1016/j.meatsci.2012.12.012

Somsuk, N. (2010). Theoretical perspectives in quality management implementation: A literature review. *2010 IEEE International Conference on Industrial Engineering and Engineering Management*, 916–920. https://doi.org/10.1109/IEEM.2010.5674214

Soon, J. M., Chandia, M., & Regenstein, J. M. (2017). Halal integrity in the food supply chain. *British Food Journal*, *119*(1), 39–51. https://doi.org/10.1108/BFJ-04-2016-0150

Sousa, R., & Voss, C. A. (2002). Quality management re-visited: a reflective review and agenda for future research. In *Journal of Operations Management* (Vol. 20, pp. 91–109). Elsevier. https://doi.org/https://doi.org/10.1016/S0272-6963(01)00088-2

Sousa, R., & Voss, C. A. (2008). Contingency research in operations management practices. *Journal of Operations Management*, *26*(6), 697–713. https://doi.org/10.1016/j.jom.2008.06.001

Spanier, G. B. (1976). Measuring dyadic adjustment: new scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, *38*(1), 15. https://doi.org/10.2307/350547

Sperber, W. H. (1998). Auditing and verification of food safety and HACCP. *Food Control*, *9*(2–3), 157–162. https://doi.org/10.1016/S0956-7135(97)00068-6

Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness, satisfaction, and strain. *Journal of Management VO - 23*, *23*(5), p679–p679. https://doi.org/https://doi.org/10.1177/014920639702300504

Statista. (2018a). Global market value of halal food 2017-2023. Retrieved October 17, 2018, from https://www.statista.com/statistics/562857/market-value-of-halal-products-worldwide/

Statista. (2018b). Major exporters of halal foods worldwide 2015. Retrieved November 3, 2018, from https://www.statista.com/statistics/785151/top-exporters-of-halal-food-global/

Steers, R. M. (1975). Problems in the measurement of organizational effectiveness. *Administrative Science Quarterly*, 546–558.

Sterling, R. (1985). Relationship between manufacturing and quality cost. *Food Technology, September*, 54–55.

Stichting-Dier, & Recht. (2010). *Vlees eten in de islamitische traditie*. Amsterdam: Stichting-Dier Recht.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*. London: SAGE Publications.

Stringer, M. F. (1994). Safety and quality management through HACCP and ISO 9000. *Dairy Food and Environmental Sanitation*, *14*(8), 428–481.

Suhr, D. (2006). *Exploratory or confirmatory factor analysis? Stat Data Anal.* Carry: SAS Institute. Retrieved from http://140.112.142.232/~PurpleWoo/Literature/!DataAnalysis/FactorAnalysis_SAS.com_200-31.pdf

Sun, H., & Cheng, T. K. (2002). Comparing Reasons, Practices and Effects of ISO 9000 Certification and TQM Implementation in Norwegian SMEs and Large Firms. *International Small Business Journal*, *20*(4), 421–442. https://doi.org/10.1177/0266242602204003

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson/Allyn & Bacon.

Talib, H. H. A., & Ali, K. A. M. (2009). An overview of Malaysian food industry: The opportunity and quality aspects. *Pakistan Journal of Nutrition*, *8*(5), 507–517.

Talib, H. H. A., Ali, K. A. M., & Idris, F. (2013). Quality management framework for the SME's food processing industry in Malaysia. *International Food Research Journal*, *20*(1), 147–164.

Talib, H. H. A., Ali, K. A. M., & Idris, F. (2014). Critical success factors of quality management practices among SMEs in the food processing industry in Malaysia. *Journal of Small Business and Enterprise Development*, *21*(1), 152–176. https://doi.org/10.1108/JSBED-10-2013-0162

Talib, M. S. A., Abdul Hamid, A. B., & Chin, T. A. (2016). Can halal certification influence logistics performance? *Journal of Islamic Marketing*, *7*(4), 461–475. https://doi.org/10.1108/JIMA-02-2015-0015

Talib, M. S. A., & Ai Chin, T. (2018). Halal food standard implementation: are Malaysian firms proactive or reactive? *British Food Journal*, *120*(6), 1330–1343. https://doi.org/10.1108/BFJ-07-2017-0366

Talib, M. S. A., Ai Chin, T., & Fischer, J. (2017). Linking Halal food certification and business performance. *British Food Journal*, *119*(7), BFJ-01-2017-0019. https://doi.org/10.1108/BFJ-01-2017-0019

Talib, M. S. A., & Hamid, A. B. A. (2014). Application of critical success factors in supply chain management. *International Journal of Supply Chain Management*, *3*(1), 21–33. https://doi.org/10.1108/13598540510589197

Talib, M. S. A., Hamid, A. B. A., & Chin, T. A. (2015). Motivations and limitations in implementing Halal food certification: a Pareto analysis. *British Food Journal*, *117*(11), 2664–2705. https://doi.org/10.1108/BFJ-02-2015-0055

Talib, M. S. A., Hamid, A. B. A., & Zulfakar, M. H. (2015). Halal supply chain critical success factors: A literature review. *Journal of Islamic Marketing*, *6*(1). https://doi.org/https://doi.org/10.1108/JIMA-07-2013-0049

Talib, M. S. A., Sawari, S. S. M., Hamid, A. B. A., & Thoo, A. C. (2016). Emerging Halal food market: an institutional theory of Halal certificate implementation. *Management Research Review*, *39*(9), 987–997. https://doi.org/10.1108/MRR-06-2015-0147

Talib, M. S. A., Thoo, A. C., & Hamid, A. B. A. (2018). *Halal Food Certification and Business Performance in Malaysia*. Singapore: Partridge Publishing Singapore. Retrieved from https://books.google.com.my/books?id=VHpnDwAAQBAJ

Talluri, S., & Sarkis, J. (2002). A model for performance monitoring of suppliers. *International Journal of Production Research*, *40*(16), 4257–4269. https://doi.org/10.1080/00207540210152894

Tamimi, N. (1998). A second order factor analysis of critical TQM factors. *International Journal of Quality and Reliability Management*, *14*(1), 71–79. https://doi.org/https://doi.org/10.1108/13598539810196886

Tan, B. (2013). TQM adoption and organisational performance of family owned businesses : a literature review and proposed structural model. *Modelling in Operations Management*, *3*(1), 1–19. https://doi.org/https://doi.org/10.1504/IJMOM.2013.052053

Tan, H. H. (2017). Peril of non-halal Korean instant noodles in Indonesia | Mini Me Insights. Retrieved October 24, 2018, from https://www.minimeinsights.com/2017/06/28/indonesian-food-regulator-revokes-permit-of-non-halal-korean-noodles/

Tan, K. H., Ali, M. H., Makhbul, Z. M., & Ismail, A. (2017). The impact of supply chain integration on halal food integrity. *Supply Chain Management: An International Journal*, *22*(2), 1–18. https://doi.org/10.1108/08858620910986730

Tan, M. I. I., Razali, R. N., & Desa, M. I. (2012). Factors influencing ICT adoption in

halal transportations : A case study of Malaysian halal logistics service providers. *International Journal of Computer Science*, *9*(1), 62–71.

Tang, Z., & Tang, J. (2012). Entrepreneurial orientation and SME performance in China's changing environment: The moderating effects of strategies. *Asia Pacific Journal of Management*, *29*(2), 409–431.

Tarí, J. J., Molina, J. F., & Castejón, J. L. (2007). The relationship between quality management practices and their effects on quality outcomes. *European Journal of Operational Research*, *183*(2), 483–501. https://doi.org/10.1016/j.ejor.2006.10.016

Taylor, E. (1996). Is food hygiene training really effective? *Environmental Health*, *104*, 275–276.

Taylor, E. (2001). HACCP in small companies: Benefit or burden? *Food Control*, *12*(4), 217–222. https://doi.org/10.1016/S0956-7135(00)00043-8

Taylor, E., & Kane, K. (2005). Reducing the burden of HACCP on SMEs. *Food Control*, *16*(10), 833–839. https://doi.org/10.1016/j.foodcont.2004.06.025

Taylor, E., & Taylor, J. Z. (2004). Using qualitative psychology to investigate HACCP implementation barriers. *International Journal of Environmental*, *14*(1), 53–63. https://doi.org/10.1080/09603120310001633877

Taylor, J. Z. (2011). An exploration of food safety culture in a multi-cultural environment: next steps? *Worldwide Hospitality and Tourism Themes*, *3*(5), 455–466. https://doi.org/10.1108/17554211111185836

Taylor, J. Z., Garat, J. P., Simreen, S., & Sarieddine, G. (2015). A new model of Food Safety Culture Excellence and the impact of audit on food safety standards. *Worldwide Hospitality and Tourism Themes*, *7*(1), 78–89. https://doi.org/A new model of Food Safety Culture Excellence and the impact of audit on food safety standards

Technavio. (2016). Halal Food Market in Europe 2016-2020. Retrieved October 21, 2018, from https://www.technavio.com/report/europe-food-halal-food-market

Teddlie, C., & Johnson, R. (2009). Methodological thought since the 20th century. In *Foundations of mixed methods* (pp. 40–61). London: SAGE Publications.

Tehseen, S., Ramayah, T., & Sajilan, S. (2017). Testing and Controlling for Common Method Variance: A Review of Available Methods. *Journal of Management Sciences*, *4*(2), 142–168. https://doi.org/10.20547/jms.2014.1704202

Teixeira, S., & Sampaio, P. (2013). Food safety management system implementation and certification : survey results. *Total Quality Management & Business Excellence*, *24*(3–4), 275–293. https://doi.org/10.1080/14783363.2012.669556

Tena, A. B. E., Llusar, J. C. B., & Puig, V. R. (2001). Measuring the relationship between total quality management and sustainable competitive advantage: A resource-based view. *Total Quality Management*, *12*(7–8), 932–938.

https://doi.org/Measuring the relationship between total quality management and sustainable competitive advantage

Terziovski, M., Power, D., & Sohal, A. S. (2003). The longitudinal effects of the ISO 9000 certification process on business performance. *European Journal of Operational Research*, *146*(3), 580–595. https://doi.org/https://doi.org/10.1016/S0377-2217(02)00252-7

Thamizhmanii, S., & Hasan, S. (2010). A review on an employee empowerment in TQM practice. *Manufacturing Engineering*, *39*(2), 204–210.

The Pew Research Center. (2015). The Future of World Religions: Population Growth Projections, 2010-2050. Retrieved August 8, 2017, from http://www.pewforum.org/2015/04/02/religious-projections-2010-2050/

The Star. (2012, May 2). JAKIM declares Golden Churn butter as halal. Retrieved from http://www.thestar.com.my/News/Nation/2012/05/03/Jakim-declares-Golden-Churn-butter-as-halal/

The Straits Times. (2015, May 26). Malaysia revokes halal certificate of restaurant chain Secret Recipe due to "cleanliness issues." *The Straits Times*. Retrieved from http://www.straitstimes.com/asia/se-asia/malaysia-revokes-halal-certificate-of-restaurant-chain-secret-recipe-due-to-cleanliness

The Sun Daily. (2015). RM100m grant for halal industry to raise SME standards: HDC. *The Sun Daily*. Retrieved from http://www.thesundaily.my/news/1601872

Thompson, S., de Burger, R., & Kadri, O. (2005). The Toronto food inspection and disclosure system. *British Food Journal*, *107*(3), 140–149. https://doi.org/10.1108/00070700510586461

Tieman, M. (2011). The application of Halal in supply chain management: In-depth interviews. *Journal of Islamic Marketing*, *2*, 186–195. https://doi.org/10.1108/17590831111139893

Tieman, M. (2012). Principles in halal supply chain management. *Journal of Islamic Marketing*, *3*, 217–243. https://doi.org/10.1108/17590831211259727

Tieman, M. (2017). Halal risk management: combining robustness and resilience. *Journal of Islamic Marketing*, *4*(1), 2013–2014. https://doi.org/10.1108/17590831311306336

Tieman, M., & Che Ghazali, M. (2013). Principles in halal purchasing. *Journal of Islamic Marketing*, *4*(3), 281–293. https://doi.org/10.1108/JIMA-01-2012-0004

Tomašević, I., Šmigić, N., Đekić, I., Zarić, V., Tomić, N., & Rajković, A. (2013). Serbian meat industry: A survey on food safety management systems implementation. *Food Control*, *32*(1), 25–30. https://doi.org/10.1016/j.foodcont.2012.11.046

Torres, D. H. (2000). Role of government in HACCP audit: A Cuban perspective. *Food Control*, *11*(5), 365–369. https://doi.org/http://dx.doi.org/10.1016/S0956-

7135(99)00085-7

Trenwith, C. (2013, April 18). Fast food giant to pay $700k for halal mislabelling. *Arabian Business*. Retrieved from http://m.arabianbusiness.com/fast-food-giant-pay-700k-for-halal-mislabelling- 498543.html

Trienekens, J., & Zuurbier, P. (2008). Quality and safety standards in the food industry, developments and challenges. *International Journal of Production Economics*, *113*(1), 107–122. https://doi.org/10.1016/j.ijpe.2007.02.050

Tsim, Y. C., Yeung, V. W. S., & Leung, E. T. C. (2002). An adaptation to ISO 9001:2000 for certified organisations. *Managerial Auditing Journal*, *17*(5), 245–250. https://doi.org/10.1108/02686900210429669

Tully, S. (1995). Purchasing's new muscle. *Fortune*, *20*, 75–83.

Ungku Fatimah, U. Z. A. (2013). *Measuring food safety culture: Insights from onsite foodservice operations. (PhD thesis)*. Iowa State University. Retrieved from http://lib.dr.iastate.edu/etd/13145/

UNIPEQ. (2018). Halal Services. Retrieved November 12, 2018, from https://www.unipeq.com.my/halal-services/

Van Der Eijk, C., & Rose, J. (2015). Risky business: Factor analysis of survey data - Assessing the probability of incorrect dimensionalisation. *PLoS ONE*, *10*(3), 1–31. https://doi.org/10.1371/journal.pone.0118900

van der Spiegel, M. (2004). *Measuring effectiveness of food quality management*. van Wageningen Universiteit.

van der Spiegel, M. (2007). Measuring effectiveness of food quality management in the bakery sector. *Total Quality Management & Business Excellence*, (October 2014), 37–41. https://doi.org/10.1080/14783360600594248

van der Spiegel, M., de Boer, W. J., Luning, P. A., Ziggers, G. W., & Jongen, W. M. F. (2007). Validation of the instrument IMAQE-Food to measure effectiveness of food quality management. *International Journal of Quality & Reliability Management*, *24*(4), 386–403. https://doi.org/10.1108/02656710710740554

van der Spiegel, M., Fels-Klerx, H. J. van der, Sterrenburg, P., Ruth, S. M. van, Scholtens-Toma, I. M. J., & Kok, E. J. (2012). Halal assurance in food supply chains : Verification of halal certificates using audits and laboratory Analysis. *Trends in Food Science & Technology*, *27*(2), 109–119. https://doi.org/10.1016/j.tifs.2012.04.005

van der Spiegel, M., Luning, P. A., Ziggers, G. ., & Jongen, W. M. F. (2003). Towards a conceptual model to measure effectiveness of food quality systems. *Trends in Food Science & Technology*, *14*(10), 424–431. https://doi.org/10.1016/S0924-2244(03)00058-X

van der Spiegel, M., Luning, P. A., Ziggers, G., & Jongen, W. M. F. (2005). Development of the instrument IMAQE-Food to measure effectiveness of quality

management. *International Journal of Quality & Reliability Management*, *22*(3), 234–255.

van der Spiegel, M., Luning, P. A., Ziggers, G. W., & Jongen, W. M. F. (2004). Evaluation of performance measurement instruments on their use for food quality systems. *Critical Reviews in Food Science and Nutrition*, *44*(February 2015), 501–512. https://doi.org/10.1080/10408690490489350

van der Valk, W., & Wynstra, F. (2005). Supplier involvement in new product development in the food industry. *Industrial Marketing Management*, *34*(7), 681–694. https://doi.org/10.1016/j.indmarman.2005.05.009

van Prooijen, J.-W., & van der Kloot, W. A. (2001). Confirmatory analysis of exploratively obtained factor structures. *Educational and Psychological Measurement*, *61*(5), 777–792. https://doi.org/10.1177/00131640121971518

Vasconcellos, J. A. (2005). *Quality Assurance for the Food Industry*. Florida: CRC Press.

Verbeke, W., Rutsaert, P., Bonne, K., & Vermeir, I. (2013). Credence quality coordination and consumers' willingness-to-pay for certified halal labelled meat. *Meat Science*, *95*(4), 790–797. https://doi.org/10.1016/j.meatsci.2013.04.042

Violaris, Y., Bridges, O., & Bridges, J. (2008). Small businesses - Big risks: Current status and future direction of HACCP in Cyprus. *Food Control*, *19*(5), 439–448. https://doi.org/10.1016/j.foodcont.2007.05.004

Vladimirov, Z. (2011). Implementation of food safety management system in Bulgaria. *British Food Journal*, *113*(1), 50–65. https://doi.org/10.1108/00070701111097330

Voss, C. A. (1995). Alternative paradigms for manufacturing strategy. *International Journal of Operations & Production Management*, *15*(4), 5–16. https://doi.org/10.1108/01443579510083587

Wahab, N. A., Farah Mohd. Shahwahid, Hamid, N. A., Miskam, S., Ager, S. N. S., Abdullah, M., … Saidpudin, W. (2015). Undang-undang Halal Malaysia : Isu dan Cabaran. In *World Academic and Research Congress* (pp. 122–135). Jakarta,: YARSI University.

Wahid, R. A., & Corner, J. (2009). Critical success factors and problems in ISO 9000 maintenance. *International Journal of Quality & Reliability Management*, *26*(9), 881–893. https://doi.org/10.1108/02656710910995073

Walker, E., Pritchard, C., & Forsythe, S. (2003). Hazard analysis critical control point and prerequisite programme implementation in small and medium size food businesses. *Food Control*, *14*(3), 169–174. https://doi.org/10.1016/S0956-7135(02)00061-0

Wall, T. D., Michie, J., Patterson, M., Wood, S. J., Sheehan, M., Clegg, C. W., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology*, *57*(1), 95–118.

Wallace, C. A. (2009). *The impact of personnel, training, culture and organisational factors on application of the HACCP system for food safety management in a multinational organisation. (PhD thesis)*. University of Central Lancashire, United Kingdom.

Wallace, C. A., Powell, S. C., & Holyoak, L. (2005a). Development of methods for standardised HACCP assessment. *British Food Journal*, *107*(10), 723–742. https://doi.org/10.1108/00070700510623513

Wallace, C. A., Powell, S. C., & Holyoak, L. (2005b). Pos-training assessment of HACCP knowledge: its use as a predictor of effective HACCP development, implementation and maintenance in food manufacturing. *British Food Journal*, *107*(10), 743–759. https://doi.org/10.1108/00070700510623522

Wallace, C. A., Sperber, W., & Mortimore, S. E. (2011). *Food Safety for the 21st Century*. Oxford: Wiley-Blackwell.

Walston, S. L., Burns, L. R., & Kimberly, J. R. (2000). Does reengineering really work? An examination of the context and outcomes of hospital reengineering initiatives. *Health Services Research*, *34*, 1363–1388.

Walton, E. J., & Dawson, S. (2001). Managers' perceptions of criteria of organizational effectiveness. *Journal of Management Studies*, *38*(2), 173–200.

Wan Hassan, W. . (2007). Globalising Halal Standards: Issues and Challenges. *The Halal Journal*, 38–40.

Wan Omar, W. (2017). *Developing a model for halal food supply chain implementation. PhD thesis*. RMIT University. Retrieved from http://researchbank.rmit.edu.au/view/rmit:162109

Wan Rusni, W. I., Othman, M., Abdul Rahman, R., Kamarulzaman, N. H., & Ab. Rahman, S. (2016). Halal Malaysia Logo or Brand : The Hidden Gap. *Procedia Economics and Finance*, *37*(16), 254–261. https://doi.org/10.1016/S2212-5671(16)30122-8

Weller, J., Shulruf, B., Torrie, J., Frengley, R., Boyd, M., Paul, A., … Dzendrowskyj, P. (2013). Validation of a measurement tool for self-assessment of teamwork in intensive care. *British Journal of Anaesthesia*, *111*(3), 460–7. https://doi.org/10.1093/bja/aet060

Welsh, J. A., & White, J. F. (1981). A small business is not a little big business. *Harvard Business Review*, *59*(4), 18–27. https://doi.org/10.1177/026624268200100115

Wen, Y., Cheng, C., Hannan, T., & Yen, F.-S. (2012). Resource platform, capacity building and social networking: a case study of NPI initiative. *China Journal of Social Work*, *5*(2), 139–147. https://doi.org/10.1080/17525098.2012.681446

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171–180. https://doi.org/10.1002/smj.4250050207

West, M. A. (2001). Organizational Climate. *International Encyclopedia of the Social & Behavioral Sciences*, 10923–10926. https://doi.org/10.1016/B0-08-043076-7/01408-X

Westermeier, R., & Naven, T. (2002). *Proteomics in practice : a laboratory manual of proteome analysis*. Weinheim: Wiley-VCH.

Whitworth, J. (2013). FSA calls urgent meeting after pork DNA found in halal meat. Retrieved from www.foodproductiondaily.com/Safety-Regulation/FSA-calls-urgent-meeting-after-pork-DNA-found-in-halal-meat

WHO. (1998). *Guidance on Regulatory Assessment of HACCP*. Geneva: World Health Organization.

Wilcock, A., Ball, B., & Fajumo, A. (2011). Effective implementation of food safety initiatives: Managers', food safety coordinators' and production workers' perspectives. *Food Control*, *22*(1), 27–33. https://doi.org/10.1016/j.foodcont.2010.06.005

Wilkinson, J. M., & Wheelock, J. V. (2004). *Assessing the effectiveness of HACCP implementation and maintenance in food production plants on the Island of Ireland Safefood The Food Safety Promotion Board*. North Yorkshire: Verner Wheelock Associates Limited.

Willa, D., Trigunarsyah, B., Coffey, V., Willar, D., Trigunarsyah, B., & Coffey, V. (2016). Organisational culture and quality management system implementation in Indonesian construction companies. *Engineering, Construction and Architectural Management*, *23*(2), 114–133. https://doi.org/10.1108/ECAM-02-2015-0026

Wilson, D. D., & Collier, D. A. (2000). An Empirical Investigation of the Malcolm Baldrige National Quality Award Causal Model. *Decision Sciences*, *31*(2), 361–383. https://doi.org/10.1111/j.1540-5915.2000.tb01627.x

Wilson, J. A. J., & Liu, J. (2010). Shaping the Halal into a brand? *Journal of Islamic Marketing*, *1*(2), 107–123. https://doi.org/10.1108/17590831011055851

Wilson, L. A., & Durant, R. F. (1994). Evaluating TQM: The case for a theory driven approach. *Public Administration Review*, *54*(2), 137. https://doi.org/10.2307/976522

Wong Riff, K. W. Y., Tsangaris, E., Goodacre, T., Forrest, C. R., Pusic, A. L., Cano, S. J., & Klassen, A. F. (2017). International multiphase mixed methods study protocol to develop a cross-cultural patient-reported outcome instrument for children and young adults with cleft lip and/or palate (CLEFT-Q). *BMJ Open*, *7*(1), e015467. https://doi.org/10.1136/bmjopen-2016-015467

Worthington, R. L., & Whittaker, T. A. (2006). Scale Development Research. *The Counseling Psychologist*, *34*(6), 806–838. https://doi.org/10.1177/0011000006288127

Xiong, C., Liu, C., Chen, F., & Zheng, L. (2017). Performance assessment of food

safety management system in the pork slaughter plants of China. *Food Control*, *71*, 264–272. https://doi.org/10.1016/j.foodcont.2016.07.006

Yang, J., Wong, C. W. Y., Lai, K., & Ngome, A. (2009). Int . J . Production Economics The antecedents of dyadic quality performance and its effect on buyer – supplier relationship improvement. *Intern. Journal of Production Economics*, *120*(1), 243–251. https://doi.org/10.1016/j.ijpe.2008.07.033

Yapp, C., & Fairman, R. (2004). *The evaluation of effective enforcement approaches for food safety in SMEs*. London.

Yapp, C., & Fairman, R. (2006). Factors affecting food safety compliance within small and medium-sized enterprises: implications for regulatory and enforcement strategies. *Food Control*, *17*(1), 42–51. https://doi.org/10.1016/j.foodcont.2004.08.007

Yeasmin, S., & Rahman.K.F. (2012). "Triangulation" research method as the tool of social science research. *Bup Journal*, *1*(1), 154–163.

Yeung, R. M. W., & Morris, J. (2001). Food safety risk. *British Food Journal*, *103*(3), 170–187. https://doi.org/10.1108/00070700110386728

Yousof, M. Al, Salem, S., Ali, B. A., Saleib, M., Juwaihan, H., & Taylor, E. (2015). Setting the standard: The development of bespoke guides for HACCP-based food safety management systems for different sectors of the hospitality industry. *Worldwide Hospitality and Tourism Themes*, *7*(1), 33–49. https://doi.org/10.1108/WHATT-12-2014-0039

Yuan, G. C. (2016, June 27). High-5: We had no choice but to close down. *The Edge*. Retrieved from http://www.theedgemarkets.com/article/high-5-we-had-no-choice-close-down

Zabukošek, M., Jevšnik, M., & Maletič, M. (2016). Analysis of dimensionality of food safety culture : An empirical examination of a Slovenian food processing company. *International Journal of Sanitary Engineering Research*, *10*(1), 20–34.

Zailani, S., Kanapathy, K., Iranmesh, M., & Tieman, M. (2015). Drivers of halal orientation strategy among halal food firms. *British Food Journal*, *117*(8), 148–163. https://doi.org/10.1108/BFJ-01-2015-0027

Zailani, S., Omar, A., & Kopong, S. (2011). An exploratory study on the factors influencing the non-compliance to halal among hoteliers in Malaysia. *International Business Management*, *5*(1), 1–12. https://doi.org/10.3923/ibm.2011.1.12

Zaini, S. M. (2017). Cara sembelih meragukan. Retrieved January 15, 2018, from https://www.hmetro.com.my/mutakhir/2017/10/274125/cara-sembelih-meragukan

Zakaria, Z. (2008). Tapping Into the World Halal Market : Some Discussions on Malaysian Laws and. *Shariah Journal*, *16*, 603–616.

Zakaria, Z., & Ismail, S. Z. (2014). The Trade Description Act 2011 : Regulating "Halal" in Malaysia. In *International Conference on Law, Management and Humanities (ICLMH'14)* (pp. 2011–2013). Bangkok.

Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Alavi-Majd, H., & Nikanfar, A.-R. (2015). Design and implementation content validity study: development of an instrument for measuring patient-centered communication. *Journal of Caring Sciences*, *4*(2), 165–178. https://doi.org/10.15171/jcs.2015.017

Zehir, C., & Sadikoglu, E. (2012). Relationships among total quality management practices: An Empirical study in Turkish industry. *International Journal of Performability Engineering*, *8*(6), 667–678.

Zeithaml, V. A., Rajan Varadarajan, P., & Zeithaml, C. P. (1988). The contingency approach: Its foundations and relevance to theory building and research in marketing. *European Journal of Marketing*, *22*(7), 37–64. https://doi.org/10.1108/EUM0000000005291

Zeng, S. X., Tian, P., & Tam, C. M. (2007). Overcoming barriers to sustainable implementation of the ISO 9001 system. *Managerial Auditing Journal*, *22*(3), 244–254. https://doi.org/10.1108/02686900710733125

Zhang, Z. (2000). An instrument for measuring TQM implementation for Chinese manufacturing companies. *International Journal of Quality & Reliability Management*, *17*(7), 730–755. https://doi.org/https://doi.org/10.1108/02656710010315247

Zu, X. (2009). Infrastructure and core quality management practices: how do they affect quality? *International Journal of Quality & Reliability Management*, *26*(2), 129–149. https://doi.org/10.1108/02656710910928789

Zulkiffli, S. N. (2014). Business performance for SMEs: Subjective or objective measures? *Review of Integrative Business and Economics Research*, *3*(1), 371.

Zunirah, T., Zailani, S., & Zainuddin, Y. (2010). Conceptualizations on the Dimensions for Halal Orientation for Food Manufacturers: A Study in the Context of Malaysia. *Pakistan Journal of Social Sciences*, *7*(2), 56–61. https://doi.org/10.3923/pjssci.2010.56.61