

# Evaluation of knowledge, halal quality assurance practices and commitment among food industries in Malaysia

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2033

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## Abstract

**Purpose** – The purpose of this paper is to assess the level of knowledge, halal dietary quality assurance practices, and commitment among food industries in the implementation of halal in Malaysia. Besides, the study was based on two categories that are considered major contributors in the chain of halal food sector in Malaysia which are the multinational, and small medium enterprise (SME).

**Design/methodology/approach** – Two company's categories related to halal food and beverage industry which are the multinational, and SME were chosen in this research based on the similarities in terms of functions and needs in the implementation of halal in Malaysia. Furthermore, both categories are the main groups in the halal food sector that support the growth of other categories. The sample of the study was comprised of 241 companies from halal certification holders (MNCs = 69; SMEs = 172). Cross-sectional study through random sampling and purposive sampling was used where the internal halal committee who have been specifically appointed in the organization were asked to fill in the questionnaire. Personally hand-delivered questionnaires in workplaces was used as a method of data collection. The data were analyzed using SPSS version 21.

**Findings** – Based on the analysis, it was found that the level of knowledge, halal quality assurance practices and commitment to be at a good level. Whereas the results of inference showed that there are significant differences for the three variables studied.

**Research limitations/implications** – In the study there are some limitations, namely; first, the categories studied are focussed solely on halal food industry. Halal now been expanded to other products such as pharmaceutical, logistics, etc. Second, the standards used are the standard and guidelines on the handling of food. Finally, the limitations in obtaining more respondents as most industry in Malaysia is still concerned to provide feedback and view it as the secrecy of the company.

**Practical implications** – First, the implication of the theory and literature studies in which the research prevalence is associated with the ISO quality and quality management, integration of multiple disciplines and concepts is essential as a combination of elements of human capital and strategic management. Second, on behalf of the government or specially-appointed halal certification body, it can give a clear picture of the exposure and promotion related to the deed, procedures, and guidelines have gone through several changes and amendments. In addition, it is also able to evaluate the effectiveness of a number of conditions that are required such as internal halal appointment committee. Third for industry practitioners, focussing in delivering halal standards is not dependent on the system, working patterns, and technologies alone, but should also take into account the element of human capital and organizational responsibility in maintaining halal integrity and enhancing the knowledge and halal dietary management in accordance with the requirements of Islamic law and fatwa.



**Social implications** – On behalf of the users, the confidence is there and in order to produce a halal product, it involves a fairly strict chain and has always been regulated by a special committee whose role are meeting the needs outlined halal standards.

**Originality/value** – The study is the starting point in discussing in detail about the halal knowledge, halal quality assurance, and commitment after the standardization and harmonization of halal certification in early 2012. Furthermore, there are a few revisions on the act, standards, and procedures by the halal certification body, which halal assurance should be implemented and considered still new.

**Keywords** Malaysia, Food, Halal, Halal quality assurance

**Paper type** Research paper

## 1. Introduction

The implementation of halal has now across the border and not only dominated by certain groups only. Hence it is not surprising that as a first step the government has provided a total of 200 million working capital to the small and medium entrepreneurs in the halal products in order to provide encouragement for the development of halal industry in Malaysia (Haspaizi, 2013) including standard thereby strengthening Malaysia as a hub for the production and halal product certification internationally recognized (MITI, the Third Industrial Master Plan Food/2006-2020) through standards-related research standard for a product to be applied throughout the country and the world. In this halal Malaysian government also emphasizes the human aspect, practices and strong commitment at all levels of the chain.

Halal has now been viewed by the industry as a weapon to improve the competitiveness in order to make their products as an ultimate choice for the users, especially Muslims (Ainon, 2007). At the same time, the halal certification has now been translated through a declaration, a letter, or a certificate. Those documents are issued by the authoritative or an Islamic body in which it is in accordance with the halal haram standards and guidelines (Abdullah and Yusof, 2012; Riaz and Chaudry, 2004).

Lately, the researchers have put forward various elements in ensuring the strengthening of the halal industry. Zzaman *et al.* (2013) and AQL (2013) has submitted a framework of integration between Halal, GMP, and HACCP in order to ensure that a product is absolutely guaranteed either in terms of halal, quality, clean, and safe. Moreover, the government has launched its own Guidelines on Halal Assurance Management System on July 9, 2013 in the form of internal controls and a guide to the industry. Thus, a specific internal assessment is required to identify the level of compliance especially in the halal food industry.

## 2. Problem statement and objectives

Parallel with the halal development, the halal certification issue is also of concern to all parties. This includes the lack of knowledge among food industries, the commitment given by members of the organization, and the practiced halal quality assurance.

According to Wilson (2014a, b), halal is fully adopted as merely a tool and thus low certification involves the mindset of people. It is also in line with Talib *et al.* (2015) who forwarded that food companies have limited knowledge in the importance of implementing halal. Past research has also found that the industry depends solely on tacit knowledge which is already available on a daily basis. In Malaysia specifically, new procedures and rules following the certification re-standardization is a challenge for most industry. These rules sometimes require more attention, especially affecting those who have long been in the business. There are a handful of entrepreneurs who think the procedure prescribed by JAKIM is a bit tight (Jumaaton, 2011). In addition,

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the *Malaysian Halal Certification Procedure Manual*, third revision (Department of Islamic Development Malaysia, 2014) first adopted by the “competent halal authority” parties effective January 1, 2015 and gained reactions from various parties, particularly industry players. Among the main points of concern are the details of internal halal committee which need to be followed by the industry by establishing the need for a Halal/Muslim Executive. This is following the importance of halal food management, especially in non-indigenous industry. They are not experts in *sharia*. Therefore, they view it only as a commercial tool without any religious basis. This is evidenced by a study which found that halal is referred to as free from pork and alcohol (Malaysian Halal Industry Market Report, 2012).

Besides knowledge capacity, organizational food management is seen from the quality alone without taking into account the halal assurance management. Indeed, sheer quality is not enough to ascertain it meets *sharia* criteria. In fact, according to Prabowo *et al.* (2015), in a conventional quality system, the term “quality” is defined based on human consensus, whereas in the halal assurance system, it is based on the divine teachings of the Quran and other Islamic laws. Hence, the emphasis on halal assurance implementation system must be carried out by the industry starting from 2013 following the guidelines provided by the authority, which is an internal challenge to the industry. For some industries, it is considered a new action that needs to be taken into account. However, previous studies found out that there was no proper explanation on halal assurance system which have ignored several key components.

At the same time the knowledge and halal assurance practices should be applied in line with management practices through organizational commitment. In this case, there are news either through the official halal website or printed media that show irresponsibility or the lack of commitment by some organizations based on offenses such as the closure of the premises, withdrawal of certificates, and so on. Furthermore, the results of monitoring and enforcement by JAKIM has shown the industry’s failure to maintain certification through non-compliance notice issued. In this case, a total of 126 of the 1437 inspections conducted from January to December 2013 has committed mistakes whether small, large or, serious (Department of Islamic Development Malaysia, 2012). In fact, according to Muhammad *et al.* (2009), to put the global halal at a halal assurance should be used as a main chain rather than clever and effective marketing strategy. It is supported by Wilson and Liu (2010) that in order to realize the true meaning of halal, strong ethical and strategic management practices is the main thing that needed to be emphasized in the halal dietary practices of any industry.

In view of this, the study of knowledge, halal quality assurance practices, and organizational commitment, especially in connection with the halal certification should be brought to light. The results of previous studies found that the focus is only on consumer behavior (Abdul *et al.*, 2013) and consumer purchase attention (Aziz and Chok, 2013). There are also studies that highlight the halal practices but differ in terms of context. For instance, Razalli *et al.* (2013) focussed on the hotel premises and does not study exclusively on knowledge or commitment to the organization in particular. Similarly, a study by Badrudin *et al.* (2012) focusses only on the quality of service by the certification body.

Therefore, the aim of this study was to assess the level of knowledge, halal dietary quality assurance practices, and commitment among food industries in the implementation of halal in Malaysia. Besides, the study was based on two categories that are considered major contributors in the chain of halal food sector in Malaysia which are the multinational, and small medium enterprise (SME).

### 3. The concept of halal

In essence, halal and *thoyyib* are complementary to each other. Halal comes from a derived Arabic word that comes from the root word *حلا, يحل, حلا*, (*halla, yahillu, hillan*), which means to set free, to let go, to dissolve and to allow or to exit from something that is illegal (*haram*) (Ibn Manzur, 1999) or out of the unlawful. From the aspect of term, halal is defined as something that is allowed by Islamic law (Buang and Mahmud, 2012) as exists permitted, with respect to which no restriction and the doing of which the law-giver (Al-Qardhawi, 1978). Al While Thoyyibah also focusses on the quality, safety and health of a food or product to be consumed (Rahman, 2009; Riaz and Chandry, 2004). The debate about the concept of halalan thoyyiban is indeed referring to the *Quran*, which is the starting point in determining the halal and haram as described by Allah in Surah Al 'Al-Baqarah; 145, Al'Araf; 157 and Al-Maidah: 4. Based on these verses, Muslim scholars (*fugaha'*) agreed to say that the food is encouraged by Islam thoyyibah are foods that do not contain elements that are harmful to health, life and the human mind. In the halal haram debate, Al-Qardhawi (1978) has outlined eleven general policy of halal haram results of research based on the Quran, the Sunnah and *fugaha'* of the past:

- (1) The basic *asl* (origin) is that all things created by Allah are halal, with few exceptions that they are prohibited (*haram*).
- (2) To make things lawful and to prohibit things is the right of Allah alone. No human being, no matter how pious or powerful may take this right into his/her own hands.
- (3) Prohibiting the halal and permitting the haram is similar to committing a Shirk (ascribing partners to God).
- (4) The basic reasons to prohibit things are due to their impurity and harmfulness. A Muslim is not required to know exactly why or how something is unclean or harmful in what Allah has prohibited. There might be obvious as well as obscure reasons.
- (5) What is halal is sufficient, what is haram is superfluous. Allah prohibits only things that are unnecessary while providing better alternatives.
- (6) Whatever is conducive to haram is itself haram. If something is haram (prohibited), anything leading to it is also haram.
- (7) Falsely representing the haram as halal is prohibited. Representing lawful as unlawful is also haram.
- (8) Good intentions do not make the haram acceptable. In the case of haram, it remains haram no matter how good the intention or how honorable the purpose is.
- (9) Doubtful things are to be avoided.
- (10) The haram is prohibited to everyone alike. Islamic laws are universally applicable to all races, creeds, and sexes.
- (11) Necessity dictates exceptions.

It coincides with the concept of *halalan thoyyiban* practiced by Jakim which covers halal, clean, safe and quality as outlined by the Trade Description (Definition of Halal)

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Order, 2011 and Trade Description (Definition of Halal) (Amendment) Order, 2012, Malaysian standard MS1500:2009, *Procedure Manual For Malaysian Halal Certification* (third revision) 2014:

Halal quality  
assurance  
practices

- (1) neither is nor consist of or nor contains any part or matter of an animal that is prohibited by Hukum syarak for a Muslim to consume or that has not been slaughtered in accordance with Hukum syarak dan fatwa, P.U.(A)53/2012;
- (2) does not contain anything which is impure according to Hukum syarak and fatwa, P.U.(A)53/2012;
- (3) does not intoxicate according to Hukum syarak and fatwa, P.U.(A)53/2012;
- (4) does not contain any part of a human being or its yield which are not allowed by Hukum syarak and fatwa, P.U.(A)53/2012;
- (5) is safe to be used or consumed, not poisonous, or hazardous to the health;
- (6) has not been prepared, processed, or manufactured using any instruments that is contaminated with impure according to Hukum syarak, P.U.(A)53/2012; and
- (7) has not in the course of preparing, processing or storing been in contact with, mixed, or in close proximity to any food that fails to satisfy paragraphs (1) and (2).

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2037

#### **4. Halal food certification procedure**

##### *Malaysian halal certification requirements*

For the management of halal certification in Malaysia, the Department of Islamic Development Malaysia (Jakim) and the Islamic Religious Council of the States (MAIN) are appointed by the government through the Trade Description Act 2011. They play important roles as “competent authority.” The result of the standardization of halal certification, halal certification is now adopting the 1 act, 1 standard, 1 guidelines, 1 system, 1 certification, and 1 logo.

In the implementation of halal standards of practice among Malaysian halal food industry, some halal standards are used as the basis for the production of halal certificates; *Manual Procedure for Malaysian Halal Certification* (third revision) 2014 which was launched in 15 December 2014 and began to be fully practiced starting January 1, 2015, MS1500:2009 *Halal Food-Production, Preparation, Handling and Storage-General Guidelines* (second revision) (Department of Standard Malaysia, 2009) *Guidelines for Halal Assurance Management System of Malaysia Halal Certification* (GGHMS) 2012 (Department of Islamic Development Malaysia, 2013) Food Act 1983 and its regulations, Results of the National Council for Fatwa Committee of Religious Affairs Islam or fatwa proclaimed by country. While for surveillance, Trade Description Act 2011 and other related acts by agencies are also used in halal dietary determining.

#### **5. Literature review**

Studies associated with halal dietary management is viewed from various perspectives by many researchers. There are those who viewed it from the perspective of consumers, law, and marketing. Even some also made a comparative study with the use of a particular model. For example, Ruzevicius and Zilinskaite (2011) adopts the ISO 9001 Quality Assurance System as the basis for their studies on halal product quality assurance system on a plant in Lithuania. They used comparative analysis method in halal certification requirements to be fulfilled and guidelines of various quality certification to see the

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patterns, challenges, and advantages of halal certification. Based on previous studies and is supported by current issues, this study was to unravel the research on three main aspects, namely knowledge, halal assurance practices, and commitment.

## 6. Knowledge

In the context of knowledge, scholars have divided knowledge into two groups namely science *fadhu 'ain* and *fardhu Kifaya*. *Fardhu 'ain* are the main knowledge pillars which contains the absolute truth, delivered through the medium of revelation, fill spiritual needs of human beings, contains guidelines that are timeless and compulsory for all people (Muslims) to know and learn. Whereas the *fardhu Kifaya* is for meeting the needs of intellectual and emotional as well as the life and prosperity of the world.

The integration of knowledge in terms of religious, humanities, and science is required and it can be translated in the concept of input-output process where the input is the integration of knowledge *fardhu ain* and *fardhu Kifaya*, from the point of emphasis is the practice and appreciation, while output is to produce men who are skilled in daily activities. In this case, the needs of transdisciplinary approach of knowledge is the best. According to Noor Hisham and Nurul Hudani (2013), transdisciplinary is an effort to integrate and transforming the areas of knowledge of a variety of perspectives to enhance the understanding of complex toward the problems that will be solved. In fact, Rehmen (2015) explains that all people should realize the importance of Islamic view to promote ethical decision making at work. It is supported by Bohari *et al.* (2013) by means of SWOT about the competitiveness of halal food in Malaysia found out that the knowledge about practices related to Islam is the main contributor of the development of halal products.

Therefore, it is not surprising in the study by Hassan *et al.* (2015) found that knowledge related to halal dietary management is still limited where findings suggest that dietary practices among industry is based on their knowledge in Islam. They still lack knowledge about halal dietary needs especially on the latest approach outlined by the authority as halal assurance.

Therefore, in this study knowledge refers to a broader scope that includes the science of religion, science, skills, and ability to understand all the rules and guidelines set forth by the authority.

## 7. Halal assurance quality practices

Halal Assurance quality practices can be seen through some of the main components, namely control point; product development and verification of flow chart, implementation of control measures, development of corrective care action, document and records management system, process verification, halal, halal guidelines database, and traceability. According to Chaudry *et al.* (1997) of halal assurance system set up under the "three zero's" which is zero limit (no use of illegal substances in production), zero defect (no illegal production) zero risk (no losses). Thus, Othman *et al.* (2015) study, classification of halal assurance element was made into some key elements, which are halal assurance control, traceability, product recall, laboratory analysis, and critical point.

### *Control points*

Control point is a reference to an element or part that needs emphasis by industry practitioners to determine all possible sources of contamination. In view of clause 6.1,

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GGHMS is too general, therefore to ensure that the control points are needed to be the primary focus, the standard operating procedures should be developed together by the internal halal committees who involved after identifying types of operations. The main points to be considered are; premise design (premise layout), condition, location, environment, process design, parameter of halal control points, documentation system (SOP) schedule, plan, forms, checklist, records, labels, specification, diagrams, pictures, and evaluation method.

#### *Product development and verification of flow chart*

MS1500:2009, by clause 3.7 has explained that the Development and Verification of Flow Chart as a guideline. In this case it can be explained through the two forms of action:

- (1) Product development: according to Stanton *et al.* (1994) there are six phases in the sequence of the new product development process which are idea generation, screening the ideas, business analysis, prototype development, test marketing, and commercialization. However, in this implementation the basics that need to be done by the industry is the ability to determine the content and halal status of products produced. The product must be in line with the business objectives of product development which includes new product ideas, prototypes, improve product features, improve product cost and alternative ingredients. Whereas to ensure the effective flow of good and accurate tools to be used and analyzed as a halal ingredient matrix and procedure assessment of halal risk.
- (2) Procurement: it can help in the process of order and purchase of material and in order to make sure the ingredients is halal and meet operational requirements. Tools that can help in the verification includes ingredients list and grouping, ingredient halal risk matrix, procedure for assessment of product, halal risk, supplier approval procedure and approved suppliers list and contact details'.

#### *Implementation of control measures*

In strengthening their production processes, implementation of effective control measure has a big role in the production of halal product. Measurement of effective control can reduce nonconformance of the halal implementation process. As mentioned in clause 6.3 in GGHMS, the internal halal committee shall determine the appropriate measure in accordance with Malaysian Standard or any relevant halal requirements. At this stage, it can be detailed through three activities which are:

- (1) Control procedure: the process must go through several key steps. First, control of time and temperature to ensure product safety. Second, calibration of each measuring device, such as time, temperature, and weight measurement. Third, the control of cross-contamination; from raw materials to food processing and the personnel to food processing. Fourth, the clothes are clean and safe, e.g. workers safety shoes. Fifth, measurement of hazard like physical, chemical, biological, and halal hazards in processing.
- (2) Product recall: the industry should be prepared for the withdrawal of any product should not meet safety or halal food requirement. Products are withdrawn shall; destroyed, reprocessed, or made modifications are dependent on the non-compliance that occurs. Example; if the product confirms not comply

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with the Islamic law like contain an element or DNA of pigs through the analysis made by the competent authorities. The industry should recall the product immediately and not sell the product on any supermarket base on batch identified. Moreover, the industry should do process of cleaning, which called *sertu* or ritual cleaning, the tools and equipment involved in the cross-contamination.

- (3) Records: it should be kept as evidence during the certification process. Good records enable one to track all activities performed during batch manufacture, from the receipt of raw materials to the final product release; they provide a history of the batch and its distribution. It also demonstrates that the processes are known and are under control. The training also should be recorded.

#### *Development of corrective action*

Referring to the clause 6.4 GGHAMS, it shows that they are two main processes involved in a halal management system which are documentation and site. On the site, corrective action must be implemented by the industry if nonconformance exists whether during the examination/audit process before certification or inspection by the competent authority in the certification after it was acquired. The internal halal committee shall ensure that the nonconformance point and perform immediate action based on reports generated on a product or process. While on the documentation, records kept shall have a description of the nonconformities product and corrective actions are made. The record also should contain revisions on non-compliance, the action taken, including the chain that identified the cause of non-compliance, action the improvements made, and the results.

#### *Document and records management system*

Documentation is a critical aspect of halal business and is a critical aspect of halal business and is a certification requirement as claimed in clause 6.5 GGHAMS. In nature, the common issues in the documentation are; poor documentation practice, outdated documented, and inadequate version control. Thus, the industry needs to establish the terms of reference consisting of halal manual, guidelines and key file. In this situation, a number of requirements that must be included is; company file, halal policy and objectives, structure and role of the internal halal authority and responsibility, halal assurance plans, personnel records, training record, communication structure, management review, and minutes of meetings. All documents should be arranged in an orderly, well-kept and signed by the parties who responsible in the halal management as indicating the role and commitment of the company in implementing halal. Halal quality cannot be assured in a regulated industry without good documents structure and practice.

#### *Process verification*

In clause 6.6 GGHAMS stated that the internal halal committee shall include checking records and operational compliance. In point of view, the verification points mean the evaluation of whether or not a product, service, or system complies with a regulation, requirement, specification, or imposed condition. It is often an internal process. Therefore, verification process should be continuously done by industry involving major aspects that can be used as a basis, such as; ingredient, food safety and hygiene,



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equipment and utensils, packaging and labeling, storage, process, transportation, sewage management, document, training of corrective action, suppliers, and others. In addition, a meat-based product or ingredients and other added raw materials which considered as “critical product” need to be verified carefully to ensure that they are really fulfill the halal requirement and do not have filthy substances.

#### *Halal guidelines*

The robust and ahead industry are look the competition in term of space and opportunity that must be fulfilled. Thus, as a basis for strengthening the organization, references to standards industry and any related guidelines are seen together and even try to integrate what the industries need. Some of the key points related to the halal certification include; accepted standard by the certification body in the country, example, in Malaysia, the standards for the production and storage of products is MS1500:2009, reference halal certification bodies accredited abroad, sensitivity to the list of recognized bodies and the list of ingredients permitted.

#### *Halal database*

In addition, the halal database is important for the purpose of obtaining information relating to halal and meet the requirements of standards, effective database seen assisting and accelerate the certification process of halal industry. Product information intended is included; raw material lists, list of packaging material, specifications of halal risk matrix, supplier information, other supporting documents that the inspectors can be used as the references.

#### *Halal traceability*

Traceability is defined as the ability to trace and follow a food, feed, food-producing animal, or substance intended to be, or expected to be, incorporated into a food or feed, through all stages of production, processing, and distribution. Therefore, in clause 8, GGHMS the industry must make efforts in the detection of the supply chain of ingredients. The tracking system can be defined as a set of data which refer to the related question of where and when the location of food and ingredients throughout the chain (Zailani *et al.*, 2010).

In addition, MS1500:2009, clause 3.7 relating to labeling and advertising is also explained how the tracking system is emphasize through; the product name, net contents of the product, a clear display of the name of the manufacturer, importer, distributor and trademark, table of contents, production serial number, expiry date and country of manufacture.

Besides, the Food Hygiene Regulations 2009, Article 10, also stated that any of the operators or owners of food premises shall provide a tracking system that is capable to identify the beginning and end of each stage of the product food chain from production to distribution. In fact, it is supported in the General Guidelines of ISO 22005:2007 related to nutrition and the food chain whereof the standard or standards do not limit system used either paper-based or electronic but what matters it is easy to verify, consistently applied, based on the results, cost-effectiveness, appropriate practice, meet regulatory requirements, policies and requirements set by any halal certification bodies.

In this case there are no doubt good tracking system can provide several major benefits: first, product tracking to determine the physical position of each item of

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supply chain, thereby facilitates product recall or notification information to customers and consumers quickly and effectively. Second, the process of identifying can help the detection and process flow included that relates to the physical and chemical aspects. Third, the information (input) detection can identify the source of the material and supplier. Fourth, the detection of the disease to determine a bacteria or virus that affects the product. Detection can determine the genetic DNA of a product. Thus, (Riaz and Chandry, 2004) viewed the importance of halal certification laboratories equipped with technology devices to ensure that all products manufactured are completely safe and comply with *sharia*.

### **8. Commitment**

Any activity in an organization needs to be joined by all individuals or groups. Commitment refers to the willingness and mutual participation among the organizations' worker that is defined through integrated work motion. The focus is not only on the work patterns but also involves understanding and role played by both sides.

Thus, *Malaysian Halal Certification Procedural Manual* (third review), MS1500:2009 (second review) and *Malaysian Halal Assurance Management System Guidelines* has underlined the needs for internal halal committee that represents numerous departments or units such as higher management, processing and output, purchasing, and, etc. with the main intention to generate responsibility toward the organization.

According to Ayub (2006) through the commitment shown by the management, an effective halal policy can be generated. Researches done by Feng *et al.* (2008) and Elias (2009) has shown that commitment dimension which was one of the elements in the implementation model of ISO 9001 quality certification plays an important role in determining organizational performance. Thus, the study by the Talib *et al.* (2015) found that a managerial commitment is fundamental to carry out the halal principle which then increases the motivation, especially in efforts to meet and maintain the halal certificate status. Furthermore, as stated by Elias (2009), halal certification done in Malaysia can be classified as a national-level halal certification. Thus, Razalli *et al.* (2013) emphasized on the management responsibility, staff policy, and staff characteristic in standard halal practice among the hotel industry.

### **9. Methodology**

The study adopted a quantitative research approach. This section presents sample and procedure, variables and measures and data analysis.

### **10. Research design**

This study is to done to specifically assess the level of knowledge, halal dietary quality assurance practices, and commitment among food industries in the implementation of halal in Malaysia. Considering that the implementation of halal assurance system as a new practice based on the current guidelines issued by the authorities in Malaysia's halal certification and effective implementation from 2013, then the research of the present study was developed based on the adaption of the Technology Acceptance Model which was further developed by Venkatesh *et al.* (2003). In other words, halal dietary quality assurance practices in this case are considered as a new technology introduced in a particular setting (Hassan *et al.*, 2015) and knowledge and commitment of implementing it is crucial to ensure the sustainable production of clean,

safe and quality food. Similarly, this study has also implemented the ISO9000 concept in which elements of organizational commitment is also a priority in product quality achievement.

### 11. Sample and procedure

Two company's categories related to halal food and beverage industry were chosen in this research based on the similarities in terms of functions and needs in the implementation of halal in Malaysia. Furthermore, both categories are the main groups in the halal food sector that support the growth of other categories. Cross-sectional study through random sampling and purposive sampling was used where the internal halal committee who have been specifically appointed in the organization were asked to fill in the questionnaire. Personally hand-delivered questionnaires in workplaces was used as a method of data collection through appointments that have been set and accepted by the company. The research took nine months and covered six main zones which are used by the halal certification body in Malaysia.

### 12. Variables and measures

Three variables were used in this research to measure the level of halal implementation in Malaysia. The said variables are the knowledge aspect, halal assurance practices, and commitment. In this research, responses to all of the variables mentioned above were measured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The criteria used were to determine the perception of internal halal committee whether they agree or not with the statement. The value of mean that is less than or equal to 2.99 will be considered as low while mean ranging from 3.00 to 3.99 will be considered good and mean starting from 4.00 and above will be considered as high. This is similar to Magd and Curry (2003) who used it as a benchmark in the research of quality management. The questions were adapted from Sadeeqa *et al.* (2013), Ahmad (2006), Feng *et al.* (2008) Elias (2009) and Othman *et al.* (2015). Table I briefly describes the number of items used for each measure and also the sample questions and reliability for each constructs.

### 13. Data analysis

Data were analyzed using the SPSS software version 21.0. Descriptive statistics were used to analyze organizations' demographical information such as category, period of operation and type of company. On the other hand, inferential statistics (*t*-test) was used to identify the difference in terms of knowledge, halal assurance practices, and commitment based on the company's size.

Variable	Number of items	Sample questions	Reliability Cronbach $\alpha$
Knowledge	6	To ensure product is halal; do not contact/stored with any material that had been categorized as najis by <i>sharia</i> and fatwa	0.73
Halal assurance	7	Organization emphasizes on halal critical control point at work process to meet halal assurance	0.76
Commitment	4	Halal certification system requires commitment from various department or unit in the company to ensure the success of certification in halal	0.72

**Table I.**  
Description of questionnaire used

**14. Results**

*Profile of respondents*

253 questionnaires were collected out of the 474 questionnaires distributed. 12 questionnaires were discarded because a large portion of the questionnaire was not completed. Hence only 241 questionnaires were used in the final analysis. In this research, two persons have been chosen to represent each company in the SME category and four persons were chosen to represent multinational company. Since the decisions taken were all made together, the analyzing unit on organizational level is very suitable for the research analysis. The respondent's profile is as presented in Table II.

**15. Descriptive statistics**

Means and standard deviations were obtained for three variables; knowledge, halal assurance practices and commitment. Based on Table III, it can explain that the means for all three variables are close which around the range of 3.72 to 4.27 for SME while 3.85 to 4.37 for multinational.

*Level of knowledge, halal assurance practices and commitment*

Based on the results obtained, it can be explained that SME minimum rates for knowledge is 2.00 and the maximum is 5.00, the range indicates 3.00 (5.00 less 2.00).

Demography	Category	Number of respondent	%
<i>Organizations' profile</i>			
Company's category	Small medium enterprise	172	71.4
	Multinational	69	28.6
Company's period of operation	1-10 years	41	17.0
	11-20 years	90	37.3
	21-30 years	61	25.3
	31-40 years	27	11.2
	> 41 years	22	9.1
Type of company	Bumiputera	77	32
	Non-bumiputera	164	68
Zone	Zon 1 (center)	91	37.8
	Zon 2 (territory)	26	10.8
	Zon 3 (east)	21	8.7
	Zon 4 (north)	31	12.9
	Zon 5 (south)	43	17.8
	Zon 6 (Sabah and Sarawak)	29	12.0

**Table II.**  
Distribution of respondents according to demography *n* = 241 (620 internal halal committee)

Variables	Category	<i>n</i>	Minimum	Maximum	Mean	SD
Knowledge	SME	172	2.00	5.00	3.72	0.56
	Multi	69	2.75	4.50	3.85	0.46
Halal assurance	SME	172	3.50	5.00	4.27	0.32
	Multi	69	3.68	4.90	4.37	0.30
Commitment	SME	172	2.50	5.00	4.09	0.47
	Multi	69	3.00	5.00	4.24	0.39

**Table III.**  
Descriptive analysis for variables

The median value show 4.00 with a standard deviation of 0.56. On the other hand, the mean value for the entire ownership knowledge showed 3.72, which sums up that the knowledge related to halal among food industries for the SME category in Malaysia is simple. For halal assurance practices, the minimum rate is 3.50 and the maximum is 5.00. So, the range shows 1.50 (5.00 less 3.50). The median value of 4.29 with a standard deviation 0.32. Plus, the mean is 4.27, which summarizes that the overall halal assurance practices among food industries for the SME category in Malaysia is high. For the commitment, the minimum value of 2.50 and a maximum indicated is 5.00, the range shows 2.50 (5.00 about 2.50). The medium value of 4.00 with a standard deviation of 0.47. While the mean is 4.09, which summarizes the overall ownership of commitment among food industries for the SME category in Malaysia is high.

On the other hand, for the multinational category, the results showed that the minimum rates for knowledge is 2.75 and the maximum is 4.50, the range shows 1.75 (5.00 less 3.25). The median value of 4.00 with standard deviation of 0.46. While the mean is 3.85, which summarizes the overall ownership of knowledge related to halal among food industries for the multinational category is simple. While for halal assurance practices about minimum rate is 3.68 and the maximum rate is 4.90, so the range indicates 1.22 (5.00 less 3.78). To display the median value of 4.43 with a standard deviation of 0.30. While the mean is 4.37, which summarizes the overall halal assurance practices among food industries in Malaysia for the multinational category is high. Finally, the commitment, the minimum value of 3.00 and a maximum indicated is 5.00, the range shows 2.00 (5.00 less 3.00). The median value of 4.25 with a standard deviation of 0.39. While the mean is 4.24 which summarizes the overall ownership of commitment among food industries for the multinational category is high. For all levels of a knowledge, halal assurance practices and commitment (low, medium, and high) is shown in the Table IV.

## 16. Inference analysis

### *Analysis on the difference of the research variables*

For the inferential test, *t*-test was used to determine the difference between all three variables namely knowledge, halal assurance practices and organizations' commitment based on the company's size.

Variables	Level			
	SME ( <i>n</i> = 172)		Multinational ( <i>n</i> = 69)	
	Frequency	%	Frequency	%
<i>Knowledge</i>				
Low ( $0.00 \leq L \leq 2.99$ )	9	5.2	1	1.4
Medium ( $3.00 \leq M \leq 3.99$ )	72	41.9	32	46.4
High ( $4.00 \leq H \leq 5.00$ )	91	52.9	36	52.2
<i>Halal assurance practices</i>				
Low ( $0.00 \leq L \leq 2.99$ )	–	–	–	–
Medium ( $3.00 \leq M \leq 3.99$ )	28	16.3	8	11.6
High ( $4.00 \leq H \leq 5.00$ )	144	83.7	61	88.4
<i>Commitment</i>				
Low ( $0.00 \leq L \leq 2.99$ )	2	1.2	–	–
Medium ( $3.00 \leq M \leq 3.99$ )	26	15.1	13	18.8
High ( $4.00 \leq H \leq 5.00$ )	144	83.7	56	81.2

**Table IV.**  
Level of knowledge, halal assurance practices and commitment

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*The difference of the knowledge variable based on the size of the company*

The results of the analysis showed that there is no significant difference in the value of mean in relation to the knowledge related to multinational halal organizations and SME K ( $t = -1.705, p > 0.05$ ). The results also showed that the value of mean for the multinational category is higher than the SME category (Table V).

2046

*The difference of the halal assurance practices variables based on the size of the company*

The results obtained based on the analysis showed that there is a significant difference in the value of mean for halal assurance practices related to halal in multinational organization and SME HAP ( $t = -2.196, p < 0.05$ ). The results also showed that the mean for the multinational category is higher than the SME category (Table VI).

*The difference in the size of the company's commitment variables*

The analysis showed there is a significant difference for halal-related commitments multinational organizations and small medium-size enterprise COM ( $t = -2.391, p < 0.05$ ). In addition, the results showed that the mean multinational category higher than the category of small and medium enterprises (Table VII).

**17. Discussion and implications**

Descriptive results show that the level of knowledge, halal quality assurance practices are in a good range min. It is consistent with the findings by Bohari *et al.* (2013), an analysis on the competitiveness of halal food industry in Malaysia using SWOT analysis which found that the food industry in Malaysia has Islamic knowledge in business practices as well as an official religious Islam is for the nation. Malaysian products meet the required standards in terms of halal confidence, safe, and better quality in addition to having a high reputation in the marketplace for the commitment

**Table V.**  
The difference of the mastery of knowledge based on the company size

Variable	Size of organization	<i>n</i>	Mean	SP	df	<i>t</i>	<i>P</i>
Mastery	Small medium enterprise	172	3.718	0.5623	239	-1.705	0.090
Knowledge	Multinational	69	3.848	0.4562		-1.863	

Notes:  $n = 241$ .  $*p < 0.05$

**Table VI.**  
The difference of halal assurance practices based on company size

Variable	Size of organization	<i>n</i>	Mean	SP	df	<i>t</i>	<i>P</i>
Halal assurance practices	Small medium enterprise	172	4.273	0.3176	239	-2.196	0.029*
	Multinational	69	4.371	0.2986		-2.255	

Notes:  $n = 241$ .  $*p < 0.05$

**Table VII.**  
Commitment difference according to company size

Variable	Size of organization	<i>n</i>	Mean	SP	df	<i>t</i>	<i>P</i>
Halal assurance practices	Small medium enterprise	172	4.090	0.4705	239	-2.391	0.018*
	Multinational	69	4.243	0.3858		-2.601	

Notes:  $n = 241$ .  $*p < 0.05$

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shown where Malaysia is appreciated by UN as the best country of produce halal products. Hence, the results were contradict with Jumaaton, who claimed some of the entrepreneurs thought the procedure prescribed by Jakim is very tight and some of the businessmen is not ready for this.

Nevertheless, the detailed results show that both multinational and SME category only reached high levels in terms of halal assurance practices and commitment than knowledge. It also proves that the food industry in Malaysia tend to be in a “safe zone.” It is supported by the findings Hassan *et al.* (2015) who found that dietary executives implemented internal halal assurance system based on their knowledge in Islam as the lack of knowledge on the requirement of internal halal assurance. But it is undeniable that it happened because of the results of the adjustment of halal certification in Malaysia which involves the states. Furthermore, from 2012 halal certification in Malaysia using one deed, one standard, one rule, one system, one logo and a certificate (Ibrahim, 2011).

In comparison, the study abroad by Prabowo *et al.* (2015) on the industry in East Kalimantan also found that lack of information and insufficient supervision lead to reluctances to conduct certification process. Ruzevicius (2012) agreed as well in his study that focusses on product quality religious-ethnical requirements and certification. He found that some aspects of quality and halal certification requirements are little known by the majority of European businessmen and it has affected the development and competitiveness in the halal industry.

Next, the results of this analysis also support the findings Perez-Freije and Enkel (2007), Razalli *et al.* (2013), Wilson (2014a, b), Huo *et al.* (2014) that the emphasis on the process flow, system control or guarantee the organization, management and human conscience responsibility and accountability are the top priorities for the food industry. Thus, it is not surprising to say that organizational commitment is significantly associated to the effective implementation of any quality initiative (Samson and Terziovski, 1999).

While the results of the inference to assess the differences that exist for both multinational and SME category, the findings have proved that there is no significant difference for the two categories is based on the knowledge in the implementation of halal in Malaysia except halal assurance and commitment. This indicates that the level of knowledge regarding halal dietary control is subjective regardless of the size difference. Even halal standards used in Malaysia has no required level of qualification in the management of halal food in Malaysia. What is required is the establishment of an internal halal committee and this committee have the same roles and functions to meet the requirements of halal standards. It is in line with Baharom (2014) that the dependence on Jakim and JAIN/MAIN to ensure that halal certification to meet with Islamic law can be reduced through the appointment of an executive halal, because these things can be implemented by the executive halal and halal audit committee is formed.

At the same time, the analysis also shows that the findings are in line Feng *et al.* (2008) that the size of the company plays a role in determining the operation of a company in which large companies performed better than medium-sized companies. A study by Zailani *et al.* (2015) on 137 halal food respondents and beverage in Malaysia also found that entrepreneurial intensity or level of commitment had no significant effect on dietary orientation strategy and this will lead to the misrepresentation of the rule. This situation is of course supported by amenities and good environment.

However, in reality, sometimes statistics do not reflect the real situation. For example, there is exposure in the media and official portal of halal certification

body in the country (www.halal.gov.my) proving that the two categories have the same opportunities in terms of the “suspension” or “withdrawal” action on their halal certificates. For instance, a total of 38 premises in the State through the 12 operations carried out by the Kelantan Health Department during January 2008 have been ordered to close because of negligence in hygiene and food handling (Bernama, 2013).

Furthermore, the findings cannot be compared and support the findings Hassan *et al.* (2015) of halal assurance aspects of the practices because of inequality in terms of the key elements that need to be sized based on the current guidelines by the certification body or previous studies. This is following the halal assurance guidelines introduced in Malaysia is still new and requires a practical involvement among industry players, certification bodies, and researchers themselves.

### **18. Conclusion and recommendations**

The study was undertaken to assess the level of knowledge, halal dietary quality assurance practices, and commitment among food industries in the implementation of halal in Malaysia among food industries in multinational, and SME categories. Cross-sectional through hand-delivered questionnaires in workplaces was used as a method of data collection. It was found that the level of knowledge, halal quality assurance practices, and commitment to be at a good level. Whereas the results of inference showed that there are significant differences for the three variables studied.

The study conducted has proven that Malaysia’s halal industry has seen a change in halal dietary practice. However, it is still not sufficient and a paradigm shift needs to be speeded up by the relevant parties whether the job, industry or consumers in enhancing their knowledge on halal food to conform to the requirements of *syarak* and the applicable standard. Furthermore, the findings Wilson (2012) showed that the average “halal players” agreement still do not how to face and find solutions together. Additionally, studies abroad by Prabowo *et al.* (2015) found that for businesses, their reluctance to comply with halal certification is mainly because of the lack of socialization and information they get about the importance of a halal certificate. The result gives a clear impression that there are still elements that need to be studied, especially in terms of management and the characteristics of other human capital.

Based on the study finding, it presents several implications for various parties. First, the implication of the theory and literature studies in which the research prevalence is associated with the ISO quality and quality management, integration of multiple disciplines and concepts is essential as a combination of elements of human capital and management. Second, on behalf of the government or specially-appointed halal certification body, it can give a clear picture of the exposure and promotion related to the deed, procedures and guidelines have gone through several changes and amendments. In addition, it is also able to evaluate the effectiveness of a number of conditions that are required such as internal halal appointment committee. Third for industry practitioners, focussing in delivering halal standards is not dependent on the system, working patterns and technologies alone, but should also take into account the element of human capital and organizational responsibility in maintaining halal integrity and enhancing the knowledge and halal dietary management in accordance with the requirements of Islamic law and fatwa. Fourth, on behalf of the users, the confidence is there and in order to produce a halal product, it involves a fairly strict chain and has always been regulated by a special committee whose role are meeting the needs outlined halal standards.

There are some limitations to be acknowledged in this study; first, the categories studied are focussed solely on halal food industry. Halal now been expanded to other



products such as pharmaceutical, logistics, etc. Second, the standards used are the standard and guidelines on the handling of food. Finally, the limitations in obtaining more respondents as most industry in Malaysia is still concerned to provide feedback and view it as the secrecy of the company.

Ergo, all parties need to be sensitive to the current needs and is not easily satisfied with what has been done where there are still many gaps to be filled, such as giving a clear picture of procedure issued and promote halal-related activities in order to get a comprehensive engagement from all party. Coupled with a good reputation as a country that pioneered Malaysia a global halal industry, halal has become the industry not only of strategic importance, but it must continue to advance along with the changing preferences of the users that require quality products, a clean, safe, healthy, and clean to eat. The producers continue to pursue quality assurance certification program to ensure that they have the ability to be competitive in the global market. What is more important is the sense of responsibility, integrity, and honesty in every action. Since the concept of halalan thoyyiban is not only for business development, but also to meet Maqasid syar'iyah particularly on the aspects of guarding life and intellectuality (Othman *et al.*, 2016; Al-Qardhawi, 2006).

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