#### **Original Article**

# Incorporating Islamic values and Shariah compliance on Malaysian Standard related to food industry

Hadi Akbar Dahlan<sup>a</sup>, A.R. Alina<sup>b,\*</sup>, S.K. Muhammad<sup>b</sup>, M.H.M. Yusop<sup>b</sup>

- <sup>a</sup> Department of Food Science, Faculty of Science and Technology, Universiti Kebangsaan Malaysia
- <sup>b</sup> Institute of Halal Research and Management, Universiti Sains Islam Malaysia, Negeri Sembilan
- \* alina@usim.edu.my

#### **ABSTRACT**

Shariah and Islamic Value are often known but not fully understood. The Malaysian Standard (MS) is a standard developed and published by Standards of Malaysia. These standard set in motion the policy and values in the industry. Regarding the food industry, there are three MS that is certifiable: MS 1480: Food Safety According To Hazard Analysis And Critical Control Point (HACCP) System, MS 1500: Halal Food – Production, Preparation, Handling And Storage – General Guidelines, and MS 1514 - Good Manufacturing Practice (GMP) For Food. Although practiced and recognized globally, the standards are without loophole. This enable industries exploitation for selfish means. It is believe incorporating Shariah and Islamic Value would greatly benefit the community and set the Food Industry toward a higher excellence of Halal Food Quality and safety production. This paper will briefly introduce Shariah and the Islamic Value Framework as well as the three standards regarding it requirements in its implementation.

Keywords: Shariah, Islamic value, Malaysian Standard, halal, food safety, food quality

#### Introduction

Shariah is an irrefutable law passed down from Allah to mankind. As mentioned in Quran "This day, I have perfected your religion for you, completed My Favour upon you, and have chosen for you Islam as your religion" [Al-Quran 5:3] The Shariah laid out the foundation, principle, characteristic, values and traditions of a Muslim society . However, Shariah may be known to many but not fully understood. The same notion goes with Islamic values. Islamic values are the guide to the way of living life, akin to the concept of Budo in Japan . There are many studies have been done towards developing model of Islamic values that can be universally incorporated . This paper will introduce briefly both Shariah law and Islamic Values that can be incorporated to Malaysian Standard that related to food industry.

There are two definitions of *Shariah*; the first relates to the commands of Allah the Almighty which encompasses all aspects of human life and the second relates specifically to the Islamic law or *Figh*. The first definition is termed *Shariah Kubra* and the latter *Shariah* 

Sughra or also known as Shariah law. However, Shariah, as a whole is a comprehensive principle of a total way of life. There are three classification of Shariah; Aqidah which is the foundation belief, Fiqh (Shariah Sughra or Shariah law) is understanding or knowledge of Shariah ruling relating to human conduct and Akhlak, which is the practice of virtue, morality and manners.

The objective of *Shariah* (Maqasid *Shariah*), can be stated in these five general principles: Firstly, Protection of Religion (hifz al-din) which *Shariah* aim to preserve and maintain protection of religion (din) under all circumstances. According to *Shariah*, religion is the essence and spirit of life. Second, Protection of Life (hifz al-nafs) in which, *Shariah* aims at protecting each and every life. Third; Protection of Lineage (hifz al-nasab) is the preservation and protection of descendants and honour under all circumstances. This includes eradication and prohibition of any illicit action including anything that lead to them. Fourth, Protection of Life (hifz al-aql) aims in preservation and protection of intellect and mind under all circumstances. This includes prohibition of intoxicants, khmar and Haram materials. Fifth objective is the Protection of Property (hifz al-mal) in which Shariah requires the preservation and protection of property which include preserving the sense of one's security and preventing theft and usurpation by others.

In this review context, the usage of *Shariah* into food standard meant applying Fiqh. Fiqh, which also known as *Shariah* law contextually meant understanding or knowledge of *Shariah* ruling relating to human conduct derived from their respective particular evidence. This definition explains the differentiation between the term *Shariah* and *Shariah* law. In Fiqh, there are four classifications; Fiqh al-Ibadat, Fiqh al-muamalat, Fiqh al-Munakahat and Fiqh al-Jinayat. As according to this paper objective, Fiqh al-Ibadat will be the Fiqh classification referred here due to Fiqh al-Ibadat deal with the rights owed to Allah the Almighty by the individual alone or by community as a whole. This include anything that food related, since food is an essence of life.

As for Islamic values, Islamic values are not social niceties of which become things for boasting, but it is an extension of one of the *Shariah* domain; *Aqidah*. These values are matters of religion for which and every member of community is held accountable for any negligence towards them. Islamic values adhere to the teachings of the Quran and the Sunnah of His Prophet, as it says in the hadith narrated by Bukhari in *al-Adab al Mufrad* that the Prophet said "I was only sent to perfect good morals".

Human will always find a way to create a path lead to astray even when guidance had been given. The incorporation of Islamic Values is a meant to prevent that from happening. Therefore, Islamic Values are required to be integrate-able to any knowledge, including to the element that lead to the development of the Malaysian Standard. As presented by several Islamic Scholars, the framework of Islamic Values that incorporated 10 elements, namely: *Tauhid* (Allah sovereignty), *Khilafah* (human as vice-regent of world), *Ibadah*, *Ilm* (knowledge), *Halal* (Allowed), *Haram* (Prohibited), *Zhulm* (Dictator), *Istishlah* (general benefits and wellbeing) and *Dhiya* (transgression). The framework is first presented at Knowledge and Value Seminar by International Federation of Institutes of Advance Study (IFIAS) and is arranged as in Figure 1.

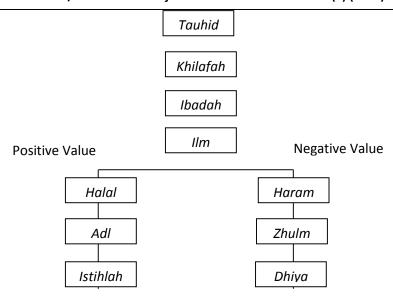


Figure 1. IFIAS Islamic Value Framework model

The framework prioritize the three elements; *Tauhid, Khilafah* and *Ibadah*. This serves to remind the people and scholar alike of what are important to their studies and life. Since people and scholars alike are seeking of knowledge (*ilm*), there's a divergence in the element. The positive value; *Halal, Adl* and *Istihlah* are there to serve as an objective to strive towards to. In this context, the culmination of the Malaysian Standard revision or development must be based upon these three principles. Meanwhile, the Negative values are there to be a reminder of what to prevent and keep away. The incorporation of *Shariah* and *Islamic Value* would bring a huge improvement to the Malaysian Standards.

# The Malaysian Standard

As proclaimed by the Malaysia's former Prime Minister in Vision 2020 (*Wawasan 2020*), Malaysia aimed to become a self-sufficient industrialized nation by year 2020. The 9 challenge given by Prime Minister include establishing a scientific and progressive society and a prosperous society with an economy that is fully competitive, dynamic, robust and resilient. One of the keys to become a self-sufficient country is by developing our industry parallel to the global industry. Thus, Standards Malaysia was established on 28 August, 1996 by the Standards of Malaysia Act 1996 (Act 549), as an agency under the Minister of Science, Technology and Innovation (MOSTI). The agency produce and approved Standards; a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose. Some standards can be certified for proof of Standard compliance.

A Standard certificate could be use a tool or proof: to the consumer, as a sign of quality; to the law, as a proof of compliance; to the competitor, as a sign of excellence. Internationally, the Standards are termed "ISO" which represent the name of International Organization for Standardization and a "number" which represent catalogue number of the standard. There are no 2 standard with the same number. In Malaysia, the standard functions the same but are re-branded as Malaysian Standard; "MS" instead of ISO. The MS are also recognized globally due to Standards Malaysia association with International Organization for Standardization (ISO) and International Electro-technical Commission (IEC)

. As of 6 January 2014, Cumulative MS alignment to international standards is at 58.81 %; a proof that Malaysia's accreditation system is being used around the world.

Each MS was developed by a Technical Committee which comprised of related government agencies, Academic Institutions, and Industry representatives. After initial draft was made, the MS was then reviewed by Industry Standards Committee (ISC) of the particular draft MS industry. Once the draft is acceptable, it was then submitted to Standards Malaysia for final approval for Malaysian Standard by the Minister . If the particular MS required subsequent revision; maybe due to changing economy and technology, the Technical Committee shall convene again for revision. If the new revision was successfully approved, the previous revision of the MS will be automatically cancelled and replaced with the newer version.

As discussed in World Halal Conference 2014, the Standards are there to be a signage of a certain quality, especially Halal standard. As mentioned by H.E. Prof Dr. Davut Kavranoglu, there are troubles of finding Halal food even in Turkey, a middle-east country. An Islamic name on premise or company may not guaranteed production of halal food and it is believe the same problem occur throughout the world. The High Comissioner of South Africa, Thamsanqa Mseleku also bring upon the challenge of a developing country to export their halal produce to Muslim nations. This is due to varying Halal standards impose by several countries with each had its own requirement. He is the first to propose for a unity in global Halal standards in the conference. As the first Muslim nation to developed halal standard and subsequent food safety and quality Standard integration, Malaysia can be the one to propose a model Halal standard along with strategy of integrating other food safety and quality standard. This can be done with the incorporation of *Shariah* and Islamic Values. The following are brief information on Halal standard and two food safety and quality standard that is common in food industry.

# MS 1480: Food safety according to Hazard Analysis and Critical Control Point (HACCP) system

Hazard Analysis and Critical Control Point (HACCP) was developed by the Pillsbury Corporation to National Aeronautics and Space Administration (NASA) with aim to ensure food safety for the first manned space missions back in 1960's. Due to its efficiency, World Health Organization (WHO) issued the HACCP principles in Codex Alimentation in 1963. The aim was then changed with the implementation into Codex; to identify and eliminate any potential hazard in processing food to ensure food safety and quality. Before 1996, HACCP was advisable but not mandatory for the industry to comply . However, following an outbreak of E. coli 0157 in Scotland in 1996, the Pennington Report recommended that HACCP be adopted by all food businesses to ensure food safety .

In Malaysia, the Standards Malaysia began to gather technical committee on Food Safety System and the first revision was successfully published the MS in 2007. The standard was named MS 1480:2007. The HACCP contains 7 principal similar to any HACCP practiced elsewhere in the world. The 7 principle are listed sequentially as in Figure 2. Although HACCP is a food quality and safety system, it is not a stand-alone system according to MS 1480:2007. Implementation of HACCP requires implementation of pre-requisite programs (PRP) such as Good Hygiene Practice, Good Manufacturing Practice or similar.

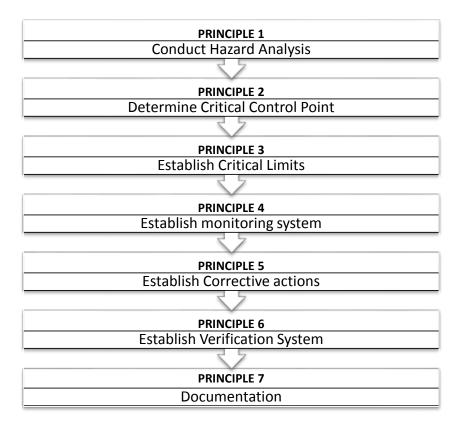


Figure 2. The 7 Principles of Hazard Analysis Critical Control Point

The HACCP system according to MS 1480:2007 requires a quality system management (Item 5.1: Management Responsibility) that includes establishing Food Safety Policy, organizing a HACCP team that is multidisciplinary as well as assigning the members responsibility and managing continuous training and education of the members to food safety awareness. The HACCP system also requires a viable HACCP plan based on the 7 principles (Item 5.2: System requirements). The HACCP plan must also take into account the current issues and developments relating to food safety including parameters set by Food Act 1985 and its amendments. Besides management and system requirement, the plan also requires supplementary documents to facilitate HACCP system execution. This includes documentation regarding product description, Process flow diagram and plan layout. The 7 principles of the HACCP plan must utilizes all the resources available based on documentation to ensure the food produce is safe and comply to the quality standard .

Principle 1: Identification of Hazards is a process of identifying every potential hazards based on their severity and likelihood of occurrence. This applies to material and process step involve directly and indirectly toward the production of the food. This step requires the HACCP team to brainstorm and list down the hazard as well as their control measure in the Hazard Analysis Worksheet as in Table 1.

Table 1

Example of Hazard Analysis Worksheet

Raw Material /	Potential	Rationale for	Is this a	Is this step a	
Packaging	Hazard	inclusion or	Significant	Critical Control Point	
Material / Process Step	(Biological, Chemical or Physical)	exclusion as a Hazard	Hazard? (Yes/No)		

In Principle 2, the HACCP team is required to determine Critical Control Point (CCP) for each significant hazard. The CCP is akin to screening test to see whether the threat is significant or not. The determination is mostly done with the aid of a Decision Tree as in Figure 3. Principle 3 requires the HACCP team to determine the critical limits for each CCP. The critical limits must be something that is measureable and usually it is based on limiting factor imposed by the Food Act 1985. However, there are sometimes when critical limit is subjective; such as meat grade inspection. The critical limit is acceptable as long as the instructions, specifications and training are conducted .

After establishing critical limits for each critical control points, the HACCP team must developed a monitoring system as described in Principle 4. The monitoring system must be able to define the target to be monitored, the monitoring method and frequency as well as responsible personnel. In Principle 5, corrective action for each CCP is to be established when the monitoring result shows deviation. Corrective action can be in any form as long as it corrects the faulty and the procedure is documented. After this, the system must be verified for compliance with the HACCP plan (Principle 6).

The verification procedure includes product recalls simulation, control measure compliance, conformity of product to customer and legal evaluation, internal audits and management review. The final principle (principle 7) serve as a reminder that any works, records, corrections regarding the HACCP system must be documented and kept in record. The whole HACCP principle can be recorded in a HACCP Plan summary as in Table 2.

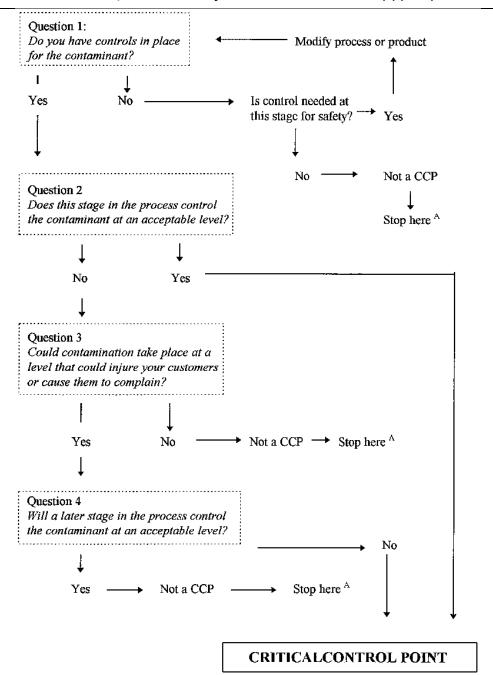


Figure 3. HACCP Decision Tree

There are several additional items that must be added to the HACCP operation mentioned in the Standard such as control of nonconforming product, Notification and product recall system, Traceability and control of measuring equipment and methods. Although mentioned, the standard gives no specific guideline on developing and implementing such systems.

Table 2. HACCP Plan Summary

CCP No.	Significant Hazard(s)	Critical Limits	Monitoring				Corrective Action	Verification	Records
& Process Step			What	How	Frequency	Who			

# MS 1500: Halal Food – Production, Preparation, Handling and Storage – General Guidelines

Islam is the official religion in Malaysia, where 61.3 % of Malaysian are Muslims . Therefore, most of the foods produced in Malaysia are Halal. However, before 1972, there was no regulation about halal in Malaysia. Only in 1972, does the label "Ditanggung Halal" and "Makanan Orang Islam" was introduced by the Trade Act 1972. Even so, the labelling was voluntary and production process inspections were minimal. As Halal awareness increase through time, consumer began to demand Halal compliance from food producer. In 1994, Government of Malaysia through Bahagian Hal-Ehwal Islam (BAHIES; the name used before Department Of Islamic Development Malaysia) began issuing Halal certificate and Halal Logo as a sign of Halal Compliance .

After the issuance of Halal certification by government, the global Islam community began to refer to Malaysia's system of Halal certification. This is because Malaysia is the only country where the government issues halal certification. Other countries also issued Halal certificate but via respective Islamic association . As a step toward standardization of Halal certification globally, Malaysia formed ISC on Halal Standards (ISC "I") to supervise the technical committee on developing a Halal Standard. The standard was developed in accordance with ISO methodologies and is the first Halal Standard to be developed by a Muslim nation. After several years of dedicated hard work, the National Body of Standardization and Quality (SIRIM) has completed the "Malaysian Standard MS 1500, General Guidelines on the Production, Preparation, Handling and Storage of Halal Foods", which includes compliance with GMP (Good Manufacturing Practices) and GHP (Good Hygiene Practices). The standard first published in 2004 and the latest revision (second revision) was published in 2009.

The definition of Halal according to MS 1500 is based on the *Shariah* Law. The *Shariah* Law according to Malaysian Law is laws of Islam in the Mazhab of Shafie or any other Mazhab (Maliki, Hambali and Hanafi) that are approved by the Yang-di-Pertuan Agong (Malaysia's Head of State) or fatwa approved by the Islamic Authority. Thus, the definition of Halal means things or action permitted by *Shariah* without punishment imposed on the doer. In this context, the definition of Halal food means food and drink and/or their ingredient permitted under the *Shariah* law and fulfill the following conditions: does not contain any parts or products according to *Shariah* law; of animals that are Haram or not properly slaughtered, containing any human parts, containing najs (unclean) or contaminated with najs throughout production and manufacturing and not poisonous, intoxicate or even hazardous to health.

The standard also includes the definition of Najs and slaughtering method according to *Shariah* law. Najs, which mean unclean, according to *Shariah* law include dogs and pigs

or any of it descendant, halal food that are contaminated with non-halal directly or indirectly, any liquid or objects that originate from filthy location of human or animals except milk, sperm and ova of human and halal animals, carrion or halal animals that are not slaughtered according to *Shariah* and *khamar* (alcoholic beverage or intoxicants). From all this, it is then categorized into najs *mughallazah* (severe najs which are dogs and pigs including any part originate from them), najs *mukhaffafah* (light najs which include urine from a baby boy at the age of two years and below who has not consumed any other food except his mother's milk) and najs *mutawasittah* (medium najs which include everything that is not specified in any other two najs) .

The standard has 8 requirements, namely: (item 3.1) Management Responsibility, (item 3.2) Premises, (item 3.3) Devices, utensils, machines and processing aids, (item 3.4) hygiene, sanitation and food safety, (item 3.5) processing of halal food, (item 3.6) storage, transportation, display, sale and servings of halal food, (item 3.7) packaging, labelling and advertising and (item 3.8) legal requirements. The responsible of management is to appoint a Muslim halal executive officer or establish a committee which consists of Muslim personnel who are capable in ensuring the effectiveness in implementing the internal halal control system. The management must also have sufficient resources that are required such as manpower, facility, financial and infrastructure in implementing the halal control system.

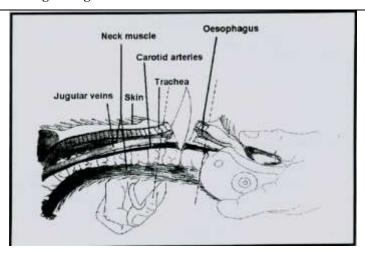
The premises that are implementing the internal halal control system should be designed and build or renovated to meet the halal control system requirements. Such requirements included a suitable process flow (employee and product manufacturing) that practice good hygiene and safety practices, equipped with sanitary facilities, effective logistics bay, compartmentalized with non-halal processing, abattoir that practice halal slaughtering and halal processing that meets the necessary requirements included in the standard and free from pest, pets and other animals. As for the devices, utensils, machines and processing aids for halal food must be used for and only for halal food production, equipped with cleaning practices and free from *najs al-mughallazah*. Should there be an incorporation of device, utensils, machines and processing aids that have been used or contacted with *najs mughallazah*, it must be firstly washed and *Samak* (ritual cleaning). However upon incorporation, it is not permitted for the device, utensils, machines and processing aids to be used with *najs mughallazah* directly or indirectly again .

The hygiene, sanitation and food system according to MS 1500 is by abiding the hygienic condition in premises licensed in accordance with any of these practices; Good Hygiene Practices (GHP), Good Manufacturing Practices (GMP), MS 1514, MS 1480 and public health legislation currently enforced in the country. This include developing and implementing measures to inspect and sort raw materials and ingredients as well as packaging materials, effective waste treatment, foreign substance contamination prevention and excessive usage of permitted food additives. The standard also provide with guideline in processing of Halal food. There are 7 sources of halal food and drink, namely: Animals, plants, mushroom and micro-organisms, natural minerals and chemicals, drinks, genetically modified food (GMF) and products that have been neutralized from hazardous origin. The crème of the standard is the requirements in slaughtering process. The process are listed and described in Table 3.

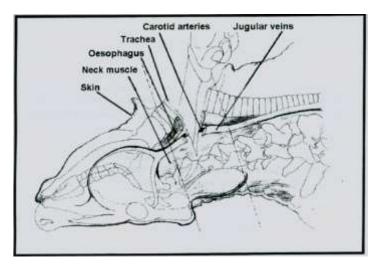
# **Table 3 requirement of Halal Slaughtering process**

### **Slaughtering Process**

- Slaughtering shall be performed only by a practicing muslim who is mentally sound, *baligh*, fully understand the fundamental rules and conditions related to slaughtering in Islam
- The slaughterman shall have certificate for halal slaughter issued by a competent authority
- The act of slaughtering shall be done with *niat* (intention) in the name of Allah and not for other purposes
- The animal to be slaughtered has to be an animal that is halal
- The animal to be slaughtered shall be alive or deemed to be alive at the time of slaughter
- Animals to be slaughtered shall be healthy and have been approved by the competent authority
- *Tasmiyyah* has to be invoked immediately after slaughtering
- The Slaughtering is recommended to be performed while facing the *qiblah*
- Slaughtering lines, tools and utensils shall be dedicated to halal slaughter only. The knife or blade used must be sharp and clean
- Slaughtering shall be done only once. The "sawing action" of the slaughtering is permitted as long as the slaughtering knife or blade is not lifted off the animal during slaughtering
- A trained Muslim inspector shall be appointed and be responsible to check the slaughtering procedure according to the Shariah Law.



Method of Slaughtering Chicken



Method of slaughtering cattle

From logistical aspect, the halal food shall be stored and transported in a transportation vehicle and display location dedicated to Halal food only. All products based on *naj al-Mughallazah*, should be segregated from halal products. The packaging, labelling and advertising of Halal food must also be halal in terms of packaging material, packaging process as well as any packaging design including sign, symbol, logo, name and picture. The labelling and packaging should also not be misleading and/or contravening the principles of *Shariah* law or confusing the consumer. As a reference, the labelling should also complied the Food Act 1983 and Food Regulation 1985. The product which had comply the Standard

shall be verified through site inspection by competent authority. Only after verification does the halal certificates and certification mark issued to the products.

# MS 1514 - Good Manufacturing Practice (GMP) for Food

Good Manufacturing Practice (GMP) has its roots originate from United Sates of America's pharmaceutical industry. In the early 1960's, a chemical named Thalidomide was marketed as a drug to treat nausea in pregnant women. However, after world-wide distribution, it is apparent that the drug cause *phocomelia*; body part deformities in fetus. This create a global ban on the drug. In America, the tragedy was averted due to Kefauver Harris Amendment or Drug Efficacy Amendment that requires the drug manufacturers to provide proof of the effectiveness and safety of their drugs before approval, required drug advertising to disclose accurate information about side effects, and stopped cheap generic drugs being marketed as expensive drugs under new trade names as new "breakthrough" medications.

The amendments caused change in Current Good Manufacturing Practice Regulations which set standards for plant facilities, maintenance, laboratory controls, and any related facilities to prevent errors or accidents which could harm consumers. The idea was primarily aimed toward pharmaceutical sector and gradually improved upon for food sector purposes. In 1969 the first GMP's for food establishments were issued . The effectiveness of the GMP during this tragedy has become an early model for a production and manufacturing quality system.

In Malaysia, GMP certification has already being issued by private quality certifiers association using international standards of GMP. However, after MS 1514 has been published in 2009, all manufacturers that intend to be GMP certified must follow the standard guideline produce by the Standards Malaysia. There are 8 elements of GMP in MS 1514, namely: (item 5) Premise and facilities, (item 6) Operation Control, (item 7) Sanitation and Maintenance, (item 8) Personnel, (item 9) Transportation and distribution, (item 10) Traceability, (item 11) Internal inspection (item 12) management review and (item 13) legal requirement.

Premises and facilities according to MS 1514 require the location of operation to be located in safe, clean and conducive environment. Other requirement include having a suitable work flow design that limit crisscrossing and back-tracking and adherence to the specific guideline on floor, lighting, water supply, storage condition, air flow, compartmentalization and sanitation facilities dimensions. In operation control, the MS 1514 specifies the requirement of documenting control of food hazards, key aspects of hygiene control systems, materials transactional proof between supplier and receiving organization, packaging and storage dimensions and management and supervision responsibilities. The organization must also prepared a customer feedback and complaints system as well as developing product recall and traceability capability .

Sanitation and maintenance element of MS 1514 requires developing maintenance, cleaning and sanitation programs. The programs should include specifics on cleaning maintenance from target area, equipment, responsibilities for each task, frequency of maintenance and monitoring system. The cleaning and sanitation aspects include guideline on detergent and lubricant used, pest control, guideline on food-contact surfaces, waste

treatment system (solid and liquid waste). Every personnel according to MS 1514 should trained and practiced personal hygiene before, during and after work. There are also requirement for any visitors to food processing and manufacturing area must be equipped with protective clothes as well as abiding the personal hygiene rules given by escorting personnel .

The fifth element in MS 1514 is Transportation and distribution which describe the requirement of standard product transportation including providing effective protection from any contamination, storage compartmentalization according to food product type, clean transportation condition as well as temperature control system for certain food products. The traceability element is an important element in GMP where it requires a detailed record of every material (including supplier, certification of analysis, quality test results), processing batch (equipment records, monitoring data, corrective action) personnel responsible, cleaning, sanitation and maintenance program report and any related particular to the food product .

Once the system developed and undergoing trial implementation, an internal inspection should be conducted. This includes conducting self-inspection on the previous GMP elements to ensure effectiveness of the system toward food production. An ongoing internal audit should also be conducted at least every 6 months by selected internal auditors appointed by the management. The internal audit also include audit on supplier and contractor involve in food production. Once the GMP system developed, a management review meeting must be conducted before GMP application to discuss the implemented GMP development status, human resources requirement, any problem or observations raised from the internal audit as well as preparing certificate of analysis (CoA) for finished product and Standard operating procedure (SOP) for a process. The final element; legal requirement requires the applying organization to documentation the SOP, CoA and ensure the finished product to comply with Food Act and Regulations .

GMP is a practice that aims to ensure that every batch of a product meets the very high quality standards. In this context, the practices include developing a GMP system setting in a conducive, safe and clean place with every personnel trained and self-regulate. Different from MS 1480, the traceability system as well as a product recall system in MS 1514 was defined and a specific guideline to both systems was given. The guideline was given as in Table 4. This is one of the reasons why MS 1480 requires a pre-requisite program before its implementation.

Table 4. Traceability guideline in MS 1514

# **Under 6th Element: Operation Control**

- The establishment shall establish and apply a traceability system that enables the identification of product lots and their relation to batches of raw materials, processing and delivery records.
- The traceability system shall be able to identify incoming material from the immediate suppliers and the initial distribution route of the end product.
- Traceability records shall be maintained for a defined period for system assessment to enable the handling of potentially unsafe products and in the event of product recall.
- Records shall be in accordance with statutory and regulatory requirements and customer requirements and can be based on the end product lot identification.
- Traceability of product is important to ensure an effective and efficient recall system

# 10th Element: Traceability

All record must be stored and maintained for a period that is longer than the product shelf life. Important records include:

- Raw Material
- Supplier
- Water quality and water supply (source, water treatment and analysis result)
- Equipment maintenance
- Manufacturing and monitoring
- Corrective action
- Cleaning and sanitation
- Pest control
- Personnel (health and training record)
- Product quality assessments
- Distribution (Product batch lot number, quantity, customer information, storage condition since early product distribution)
- Internal inspection record
- External audit and supplier audit

### The need for Shariah compliance and Islamic value enrichment

In Malaysia, most companies adopt MS 1500 as a license of producing and distributing food toward Muslim's population. Beside MS 1500, most companies also adopts either MS 1480 or MS 1514 or even both . However, how far does the company synergize both standard toward food processing and production is unknown. MS 1500 only covers toward production, preparation, handling and storage of Halal food. There's a possibility of MS 1500 does not cover the processing of food in the company and it may end up producing end product that is not halal . Case of food company not following the standards even when certified is rampant, as the recent horse meat scandal in Europe .

There is also issue of exploiting standard clauses. One such exploitation is the requirement of organization to appoint a Halal executive officer in MS 1500. The loophole in this clause is the depth of knowledge required of the Halal Executives officers. It is known that some company employs Muslim finishing high-school academic level to become the officers. This because there is not halal executive's officer qualification requirement enacted. It is also known that there is legal loophole in the Standards and the Standards Malaysia had made few amendments when perversion or misappropriations detected. The amendments can be made due to good wills of food companies, manufacturers and nongovernment organization to help improving the standards . However, not all companies are known to have this kind of good will.

Originally, all food companies are believed to started from the good will of its owner to spread the goodness of their food products to the community. But as time subside, the owner's will began to subside and wane. The bad side of the food industry occurs when the industry view its products with a profit oriented objective, disregarding human ethics and good values. As summarized by Joel Salatin, a figure of American natural farmers about the food industry dishonesty; "when they [food company] view the animal as a resource to be manipulate and derived for profit, [food company] will probably view individuals with the same type of disdain and disrespect". All of this occurs due to the industries not investing much in human resources, specifically in ethics and moral value. Incorporation of Shariah and Islamic value is believed to be able to remedies this unethical and immoral culture of the food industries.

### Incorporating Shariah compliance and Islamic value

JAKIM had develop Guidelines for Halal Assurance Management System of Malaysia Halal Certification . These guidelines improve upon the MS 1480 in terms of Shariah compliance. This guideline also remedies the loophole of Halal executive officer academic level, in which the guidelines require the food companies to formed Internal Halal Committee (IHC). The IHC shall consists of four members in which two of them must be a Muslim working at a management level, one member must be working at purchasing or procurement department and if there exist a meat processing plant or similar, one worker must be from the said department. As a summary of the guideline, the guideline introduces Halal Assurance Management System which is based on HACCP system. The general principle of the Halal Assurance Management system starts with Determination of Halal Critical Points, Development and Verification of Flow chart, Implementation of Control Measures, Development of Corrective Action, Documentation and Process verification. The guideline also requires the development of product recall procedure, in which the food industries can referred to other literature works for a proper and more detailed guideline. As of now, the guideline is only an advisory to Halal certificate holder to fulfill halal standards, regulations and requirements in halal certification. This should be change to mandatory because Shariah, including halal is ubiquitous and is the way of life.

Standards Malaysia already published MS 2300: Value-Based management systems-Requirements from an Islamic Perspective. This standard must be incorporate by food companies as a rendition to Islamic Value. The core purpose of MS 2300 is to (1) encourage employee to act as a servant and vicegerent of Allah, (2) demonstrate ethical behaviors in all undertakings and (3) achieve optimum performance through all levels of employee.

Beside the Islamic value, MS 2300 also incorporate a morale rejuvenation program called Discover-action-engage-institutionalize (DAEI) methodology. The DAEI program is basically a quality management system with an objective to serve public good and humanity's need. The model of the system is as in figure 6.

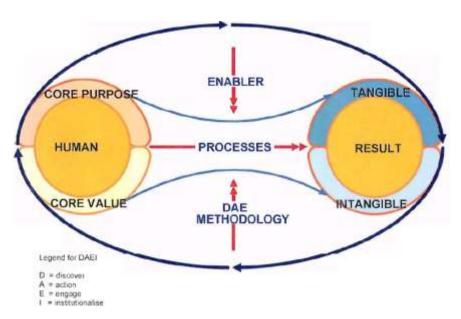


Figure 6. DAEI Methodology system model

The DAEI methodology does not provide a definite core values. As stated in the MS, the core values are based on what is manifested through observable behaviors. To improve, the core value should be used with the IFIAS Islamic Value model mentioned earlier. This because the Islamic value model encompasses all the core values mentioned as an example in the MS (*Taqwa* (Piety), Moral (*Akhlaq*) and Quality (*Itqan*)). By using the Islamic Value model, it is believed the food company would put the integrity of the food production (including ethics, safety, quality, wholesomeness and halal) above all else regardless of religion, socio economic and race.

# Conclusion

All of the standards discussed in this paper are already a complete and sufficient system in controlling food quality and safety. The Standards Malaysia and JAKIM should be lauded due to their act in developing the Halal standards as well as their effort into enforcing the standard into Malaysia's and global food industries. As of now, most food companies in Malaysia are certified in these 3 standards. But, loop holes in the standards may exist and be exploited unless the authority monitored vigilantly. This will require extensive resources which are limited. The possible solution is to improve it on the policy level. Incorporating *Shariah* and Islamic Value would definitely help and may be in doing so; these suggestions could make the food industries more transparent and put an end to dishonesty food adulteration cases and focus on producing good halal food product for the betterment of life.

#### References

Alina, AR, AR Norhayati Rafida, HKMW Syamsul, A Siti Mashitoh, and MHM Yusop. "The Academia's Multidisciplinary Approaches in Providing Education, Scientific Training and Services to the Malaysian Halal Industry." (2013).

Department of Standards Malaysia. "Faq." Department of Standards Malaysia

# http://www.standardsmalaysia.gov.my/faqs.

- ———. "Food Safety According to Hazard Analysis and Critical Control Point (Haccp) System." In *MS 1480:2007*. Malaysia, 2007.
- ———. "Good Manufacturing Practices (Gmp) for Food." In *MS 1514:2009*. Malaysia: Department of Standards, 2009b.
- ———. "Halal Food Production, Preparation, Handling and Storage General Guidelines " In *MS 1500:2009*. Malaysia: Department of Standards Malaysia 2009a.
- ———. "Value-Based Management Systems Requirements from an Islamic Perspective." In *MS 2300:2009*. Malaysia: Department of Standards,, 2009c.
- Department of Statistics Malaysia. "Taburan Penduduk Dan Ciri-Cir Asas Demografi." edited by Department of Statistics. Malaysia, 2010.
- Dunmore., Charlie, and Adrian Croft. "Horsemeat Scandal Set to Spur Tougher Eu Food Test." (2013). <a href="http://www.reuters.com/article/2013/02/13/us-eu-horsemeat-idUSBRE91C0LH20130213">http://www.reuters.com/article/2013/02/13/us-eu-horsemeat-idUSBRE91C0LH20130213</a>.
- Food Safety Authority of Ireland, . "Update on Authenticity of Meat Products." (2013). http://www.fsai.ie/news centre/meat product update/19012013.html.
- HACCP for excellence. "History of Haccp." http://www.haccpforexcellence.com/home/history of haccp.
- Halal Hub Division. "Guidelines for Halal Assurance Management System of Malaysia Halal Certification." Cyberjaya: Department of Islamic Development Malaysia, 2012.
- Huzni Thoyyar. "Model-Model Integrasi Ilmu Dan Upaya Membangun Landasan Keilmuan Islam (Survey Literatur Terhadap Pemikiran Islam Kontemporer)." In *Annual Conference on Islamic Studies*. Bandung: Departmen Agama Rakyat Indonesia, 2006.
- Ilyia Nur Ab Rahman, Suhaimi Ab Rahman, Rosli Saleh, and Dzulkilfy Mat Hashim. "Polisi Pensijilan Halal Bagi Industri Restoran Di Malaysia." Chap. 6 In *Pengurusan Produk Halal Di Malaysia*, edited by Suhaimi ab. Rahman, 113-31. Serdang: Universiti Putra Malaysia, 2011.
- ISO. "Standards." International Organization for Standardization, <a href="http://www.iso.org/iso/home/standards.htm">http://www.iso.org/iso/home/standards.htm</a>.
- Izham Nayan. "Kertas Kerja Kepentingan Ilmu Kepenggunaan." In *The International Agriculture, Horticulture and Agro tourism Exhibition (MAHA 2012)*. Serdang: Lembaga Pemasaran Pertanian Persekutuan (FAMA), 2012.
- Kal-kausar, MA, AR Norhayati Rafida, NH Nurulhusna, AR Alina, and A Siti Mashitoh. "Crisis Communication and Management on Food Recall in the Malaysian Food Industry." (2013).

- Kenner, Robert. "Food Inc. ." 94 minutes. USA: Magnolia Pictures, 2008.
- Kim, James H., and Anthony R. Scialli. "Thalidomide: The Tragedy of Birth Defects and the Effective Treatment of Disease." *Toxicological Sciences* 122, no. 1 (July 1, 2011 2011): 1-6.
- Kisshomaru Ueshiba. *The Spirit of Aikido*. Translated by Taitetsu Umo. Tokyo: Kodansha international, 1984.
- Mahathir Mohamad. "The Way Forward Vision 2020." (1991). http://www.wawasan2020.com/vision/index.html.
- Mohd Herwan Sukri Bin Mohammad Hussin, and Mohd Hawari Bin Mohammad Hussin. *Understanding Shari'ah and Its Apllication in Islamic Finance*. Kuala Lumpur: Islamic Banking and Finance Institute Malaysia (IBFIM), 2011.
- Muhammad Ali Al-Hashimi. *The Ideal Muslim Society: As Defined in the Quran and Sunnah*. Translated by Nasiruddin Al-Khattab. Riyadh: International Islamic Publishing House, 2007.
- Mustafa'Afifi, AH, MS Mohd Mahyeddin, M Kamilah Wati, Y Asming, SO Syed Mohd Najib, A Asmidah, A Azlin Alisa, and MK Mohd Izhar Ariff. "Consumer Protection of Halal Products in Malaysia." (2013).
- Nasim Butt. Science and Muslim Societies. Grey Seal London, 1991.
- Nik Maheran Nik Muhammad, Filzah Md Isa, and Bidin Chee Kifli. "Positioning Malaysia as Halal-Hub: Integration Role of Supply Chain Strategy and Halal Assurance System." Asian Social Science 5, no. 7 (2009).
- Shafii, Zurina, and WMN Wan Siti Khadijah. "Halal Traceability Framework for Halal Food Production." (2012).
- Standard Malaysia. "Malaysian Standards (Ms) Status as of Minister Approval on 6 January 2014."

  Standard Malaysia, Malaysia,
- The University of Reading. "Pennington Report Government Response." edited by Food Law. Scotland, 1997.
- US Food and Drug Administration. "Promoting Safe and Effective Drugs for 100 Years." <a href="http://www.fda.gov/AboutFDA/WhatWeDo/History/CentennialofFDA/CentennialEditionofFDAConsumer/ucm093787.htm">http://www.fda.gov/AboutFDA/WhatWeDo/History/CentennialofFDA/CentennialEditionofFDAConsumer/ucm093787.htm</a>.
- Wallace Janssen. "The Story of the Laws Behind the Labels." US Food and Drug Administration, http://www.fda.gov/AboutFDA/WhatWeDo/History/Overviews/ucm056044.htm.
- World Halal Conference Secretariat, and Halal Industry Development Corporation. "Global Food Security: The Halal Perspective." In *World Halal Conference 2014*. Kuala Lumpur Covention Center, 2014.
- World Halal Council. "Members of World Halal Council." <a href="http://www.worldhalalcouncil.com/members">http://www.worldhalalcouncil.com/members</a>.

Zailani, Suhaiza, Zainal Arrifin, N Abd Wahid, Rosly Othman, and Yudi Fernando. "Halal Traceability and Halal Tracking Systems in Strengthening Halal Food Supply Chains for Food Industry in Malaysia (a Review)." *Journal of food Technology* 8, no. 3 (2010): 74-81.