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# Quality Assurance in Halal Food Manufacturing in Malaysia: A Preliminary Study

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#### Abstract:

Doubtful about the food quality appear in every aspects beginning from the ingredient, processing and handling, "from farm to table". Recently, the issue of halal food has attracted public attention as well as Malaysia's government especially on the *Halal Toyibbah* issues. Further, Malaysia's government has decided for Malaysia to be the halal center or halal-hub in the region as well as international. This paper will focus on the food and beverage industry in Malaysia. There are many definition of food quality in the food manufacturers' perspective especially on the implementation of food quality practices such as Good Manufacturing Practices (GMP) and ISO9000/ Hazard Analysis Critical Control Point (HACCP). The standards have been recognized in the international market. Consequently, Department of Standards Malaysia has developed a halal standard for foods, MS1500:2004, that covering from the production of halal foods, preparation, handling and storage. Beside that, food quality is also refers to safety, hygienic and healthy food. This paper describes author's preliminary work on the importance of quality assurance in the manufacturing and handling of halal foods.

#### Keywords : Halal Food, Food Quality, Food Manufacturer, SMEs, Malaysia.

#### **1. Introduction**

Halal issues has been discussed and obtained highly attention by the Prime Minister of Malaysia since early 2003 in his governance. Attempts Malaysia to achieve and gain world recognition as halal hub as well as, penetrating the global market. In achieving the objectives, Malaysia trade officials shall setup an agency that will oversea the halal food governance, as the country seeks to play greater part in the fastdeveloping halal food sector. According to Dominiques Patton [1], with more than 1.8 billion Muslims globally, the total size of global halal food and non-food (such as financial services, pharmaceuticals and cosmetics) industries is estimated at RM 7.89 trillion. The halal food market has never been measured but estimated ranges from USD 150 to USD 500 billion.

Therefore, in 18 September 2006, Malaysia Prime Minister launched the Halal Proceedings of International Conference on Mechanical & Manufacturing Engineering (ICME2008), 21–23 May 2008, Johor Bahru, Malaysia. © Faculty of Mechanical & Manufacturing Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia. ISBN: 97–98–2963–59–2

Development Corporation (HDC). The main objective of HDC is to introduce Malaysia as international halal hub. The main roles and functions includes [2]: (i) championing halal standards including auditing process and endorsement halal certification for protecting the halal integrity; (ii) leveraging upon development of Halal industry to enable Malaysian companies of Halal products to be integrated into the global market; (iii) developing and promoting Malaysia's halal brand; (iv) promoting halal products concept and services in Malaysia as well as in the global market; and many others.

In achieving those, Malaysia halal food manufacturers should not only focusing on Islamic processing the techniques for halal certification, but also need to concern and implement the total quality management practice for the marketability.

## 1.1. Malaysia's Food Industries

According to Jinap et al. [3], the number of Malaysian food industries nowadays consists of 5,565 food manufacturers and 172,252 food services entities (stalls, restaurants, etc). The food processing sector accounts for 10% of Malaysia's manufacturing output. Whereas, processed foods are exported to 80 countries, with an annual export value of more than RM5 billion which amounts to two-thirds of total food export of over RM10 billion. Malaysia has been recognized as modern Islamic country; this is an advantage for Malaysia to become an important base for halal food production. There is a growing global market for halal food, which is estimated to be RM560 billion per annum [4].

# 2. Quality Issues in Food Industry

When the expression of "quality" is used, most think in terms of an excellent products or services that fulfill or exceeds our expectation. However, quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy implied or stated needs [5].

Quality can be define as "fitness for use" or more appropriately for foodstuffs is; "fitness for consumption", which leads to what experts in ISO standard called customer or consumer satisfaction. Thus, quality can be described as requirements necessary to satisfy the needs and expectations of the consumers [6].

Currently, food and beverage industries in Malaysia were implementing certain standards in food processing as an obligation by Malaysian External Trade Development Corporation (MATRADE). Those standards requirement for the food manufactures in Malaysia includes [7]: Hazard Analysis and Critical Control Point (HACCP), Good Manufacturing Practice (GMP), Sanitation Standard Operating Procedures (SOPs) etc.

ISO 9000 is a suitable management standard to be bases as management system for food production [8]. However, firms lacked in a quality assurance system may experience higher costs from adopting ISO 9000, but they will realize greater benefits afterwards [9]. According to Holleran et al. [9], separate private sector and industry quality compliance generated marks, schemes or production standards into three groups. They are as follows (a) International Standards; (b) National Assurance and, (c) Proprietary Quality Assurance Systems (OA).

Meanwhile, according to Manning et al., effective quality assurance also addresses safety and quality for both products and processes. By separating products and processes, quality can be defined in terms of intrinsic quality (quality of product) and extrinsic quality (system of production and processing). To maintain the food quality a Proceedings of International Conference on Mechanical & Manufacturing Engineering (ICME2008), 21–23 May 2008, Johor Bahru, Malaysia. © Faculty of Mechanical & Manufacturing Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia. ISBN: 97–98–2963–59–2

regulatory inspection of food sample is necessary. The inspections is generally on the end product, or isolated product testing rather than assurance of the continue effectiveness of key production processes to ensure safe food to customers.

McDonald's has also implemented strict quality assurance for their food products. Quality assurance team is responsible for monitoring the quality of McDonald's food, both in the restaurants as well as at the supplier's warehouses. All suppliers are subject to strict quality specifications, which details exact quantity and quality of raw ingredients as well as dimensions of the finished products. The quality control does not end when foods reach the outlets. This is a global practice and is one of the distinguishing features of McDonalds's as a fast food restaurant [10].

### 3. The Halal Issues

developed Malaysia has Halal Certification; a total quality health and sanitary system that involves adopting procedure for slaughtering processing and other related operations a prescribes by Islamic rules. It certifies raw materials, ingredients and products based on quality, sanitary and safety considerations. This broad-based system certified is not only limited to meat and poultry products, but also cut across other consumer items such as pharmaceuticals, toiletries, cosmetics and confectionery.

In addition, to meet the Halal requirement, food producers are encouraged to adapt and maintain standards that meet global benchmarks such as ISO9000, Codex Alimentarius, QA, HACCP, Good Hygienic Practice (GHP), and SOPs.

Halal is an Arabic word which means lawful or permissible by Islamic Laws. The use of expression Halal in Malaysia by Trade Description 1975, applied to the halal food are; "*Ditanggung Halal*" or "*Makan Halal*" indicating Muslims are permitted by their religion to consume such foods [11]. For food products, the halal designation means the ingredients used in manufacturing is halal. Raw materials used will be inspected to ensure it meet the halal standards.

Halal is a term exclusively used in Islam which means permitted or lawful, there's, no parties can claim Halal without complying Islamic Law. Halal and non-Halal covers all spectrums of Muslim life, not limited to foods and drinks only. Halal and Tayibb themselves portray the symbol of intolerance in hygiene, safety and quality.

According to JAKIM, the Halal certificate is not just a religious requirement. In order to gain Halal certification, manufacturers must adhere to strict cleanliness and quality controls.

Malaysia through such agencies like, JAKIM, Department of Standards Malaysia, Institute of Islamic Understanding Malaysia and Malaysian Institute of Industrial Research and Standard (SIRIM) have developed a **comprehensive Halal Food Standard called MS1500:2004** [12].

McDonald's is one of the fast food restaurant in Malaysia gained Muslim consumers confident. Referring to literature [10] McDonald's in Malaysia and Singapore underwent rigorous inspections by Muslim clerics to ensure ritual cleanliness; the chain was rewarded with a halal ("clean and acceptable") certificate, indicating the total absence of pork products.

Another halal related issue is about product labeling. The non-Muslim have all right to produce non-halal products as long as they do not label their product as halal. Not all Muslims products can be claimed as halal, unless it complies with *Syariat*. Only credible halal certification agencies can issue such certificate. Proceedings of International Conference on Mechanical & Manufacturing Engineering (ICME2008), 21–23 May 2008, Johor Bahru, Malaysia. © Faculty of Mechanical & Manufacturing Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia. ISBN: 97–98–2963–59–2

In the other hands, Malaysian halal food manufacturer should take positive actions for issues of quality and halal, in helping Malaysia to become the halal hub grabbing the and in global market Sumali [13] stated that, by opportunity. getting halal products certified by JAKIM, manufacturers and producers are getting the assurance that their ingredients, its preparation. processing, hygienic and sanitation procedures are not only meet the halal standards, but also consistent with HACCP and other established quality assurance standards. Assurance of quality and wholesomeness can results in the increase in demand for such products.

However, halal issues was arises such as abuse of using halal's logo, proper hygienic aspects unpractised at processing premises, halal certification was expired, is being a major challenge to the success of Malaysia as the Halal hub. Table 1 shows number of JAKIM halal certificate issues from 2001 to 2007.

Table 1: Number of JAKIM Halal CertificateIssued

Year	Product	Premises	Abattoirs
2001	544	123	23
2002	420	220	22
2003	487	38	11
2004	801	117	12
2005	454	39	2
2006	808	42	11
2007	770	19	7

Source: JAKIM, 2007

Refer to Table 1, amount of products was certified as halal increases from 544 (2001) to 801 (2004). However in 2005, halal product certified was declined to 454. According to JAKIM, these situations occurred because some manufacturers were failing to renew or re-apply the halal certificate (after making some modification to the products or process upgrading). Beside, some of the manufacturers were not aware that their halal certification was expired. Halal certificate is valid for only two years.

Unfortunately, halal certificate issued for premises and abattoirs were dropped drastically. In 2001, premises received halal certifications were 123. However the number was quickly shrunk to 19 in 2007. Meanwhile, only 23 halal certificates were issues in 2001 for abattoirs and facing the same situation as the premises. The halal certification was also declined to 7 in 2007. It declines for 84.77% and 69.56% respectively for premises and abattoirs.

MS1500:2004 is a Malaysia's halal standard that helps the food manufacturers to control and provide guidance in the products processing in order to satisfy a Syariat, HACCP and GMP. In other words, the Malaysian standard is the general guidelines on production, preparation, handling and storage of halal food products has been gazetted by the Malaysian government. The issue of certification is central to the global acceptability of halal products [14].

## 4. Conclusions

It is clear that halal issues recognized safety and quality assurance. It means the product prepared must be up to the standards, which also include hygiene. Safety and quality assurance ensure that the halal products are also clean, safe and well taken care of, with good presentation and served in a proper manner, and of quality for everybody.

The enormous potential of the world wide demand for halal food must be seized by local manufacturers. This is an advantage should these manufacturers comply and adhere to the MS1500:2004 standard. Manufacturers must take advantage of the reputation and credibility of the Malaysian halal standards, halal certification and label, Proceedings of International Conference on Mechanical & Manufacturing Engineering (ICME2008), 21–23 May 2008, Johor Bahru, Malaysia. © Faculty of Mechanical & Manufacturing Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia. ISBN: 97–98–2963–59–2

which has received a worldwide acknowledgement and recognition.

Furthermore, manufacturers should strive to gain industry leadership in the world halal market and thus introduce halal products for customer satisfaction. Manufacturers should be able to establish programs and test markets for introducing and implementing a halal category at the store level. Then, earning customer's trust, ongoing loyalty and of course increased sales and profits.

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