

# The competitiveness of *halal* food industry in Malaysia: A SWOT - ICT analysis

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#### Abstract

The *halal* food industry is of vital importance to Muslims world wide as it gives them a sense of security that whatever they consume, use and purchase is *Syariah* compliant. Simultaneously, the *halal* industry contributes to societal development and national economic growth. This paper analyses the competitiveness of the *halal* food business in Malaysia using the ICT-aided SWOT analysis techniques. It was found that the industry was characterised by 16 strength factors, 18 weaknesses, nine opportunities, and nine threat factors. To enhance its current competitiveness and preparedness for future challenges a comprehensive ICT-based strategy is recommended.

Keywords: business competitiveness, global *halal* market, *halal* food industry, ICT-based strategy, Muslim community, SWOT analysis

## Introduction

The concept of *halal* refers to the manner of producing goods and services in the manner approved by Islamic law or *syariah*. This involves not only food products and food preparation but also pharmaceutical products and financial practices. The *halal* food industry is thus crucial for Muslims all over the world as it serves to ensure them that the food items they consume daily are *syariah* compliant. It is an industry which is set for tremendous growth. With a global Muslim population of 1.8 billion, the market for *halal* food is estimated at US\$547 billion a year (Dierks, 2011). This trend is expected to increase to USD2.1 trillion in tandem with the fivefold dynamics driving the global *halal* food market: growth in the Muslim population, the primary market for *halal* food; rising incomes in primary markets for *halal* food; increasing demand for safe, high quality food in primary markets; increasing demand for greater *halal* food variety in primary markets; and incidents of food marketed as *halal* but failing to meet *halal* requirements which has spurred demand for genuine *halal* products (Dagang Asia Net (2011).

Malaysia is a leader in the *halal* food benchmarking. The United Nations has cited Malaysia as the world's best example of benchmarking of *halal* food in accordance with the Codex Alimentarius Commission adopted the Codex general guidelines for the use of the term *halal* in Geneva in 1997. This is because a single *halal* standard is applied throughout the country with the result that the Malaysian standard has become the basis for the development of the world's *halal* food industries (SME Annual Report 2006, 2007).

This positioning, however, only means that it is imperative for Malysia to remain competitive in the global *halal* marketplace as this is not an industry without serious challenges (see for egs. Saifol 2011; Cole Ehmke, 2008; Porter, 2008; Sungkar, 2008; Dess, Lumpkin & Taylor, 2005; Barone & DeCarlo, 2003; Porter, 2001; Khoo & Smith, 1999). One such challenge is that of product differentiation that

meets customers' needs and expectations to ensure competitive edge and business sustainability revolves (Barone & DeCarlo, 2003). Failure to respond to this challenge may erode Malaysia's competitiveness of a *halal* food enterprise as a global player (Cole Ehmke, 2008). This paper takes a look at the current competitiveness state of Malaysia's *halal* food industry and the efforts made to respond to the challenge of staying globally competitive in the industry.

# Materials and method

# Malaysia and the halal food industry

The World Competitiveness Scoreboard has listed Malaysia in the top ten ranking (Figure 1). By extension, being the only Muslim dominated country in this top ranking Malaysia stands out as a potential leader in *halal* food industry compared to other Muslim countries, a situation which is helped by its international reputation as a progressive Muslim country. This is the edge Malaysia hopes to leverage in its aim to become a global Halal Food Hub by 2010 by raising its current global *halal* market share of one per cent to five per cent by 2010.

1 (3) Singapore	100.000
2 (2) Hong Kong	99.357
3 (1) USA	99.091
4 (4) Switzerland	96.126
5 (7) Australia	92.172
6 (`) Sweden	90.893
7 (8) Cananda	90.459
8 (23) Taiwan	90.441
9 (11) Norway	89.987
10 (18) Malaysia	87.228
11 (12) Luxemburg	86.867
12 (10) Netherlands	85.650
13 (5) Denmark	85.587
14 (16) Austria	84.085
15 (14) Qatar	83.828
16 (13) Germany	82.730
17 (24) Israel	80.327
18 (20) Mainland China	80.182
19 (9) Finland	80.002
20 (15) New Zealand	78.531

Source: IMDB World Competitive Yearbook 2010

Figure 1. World competitiveness scoreboard

The success of the *halal* food business in Malaysia is impossible without the concerted efforts, strategies and measures of the government to support the development of *halal* industry as identified in the Second Industrial Master Plan, 1996 – 2005; the National Agriculture Policy, 1998 – 2010; the Ninth Malaysia Plan (9MP), 2006 – 2010; and the Third Industrial Master Plan (IMP3), 2006 - 2020. Studies by researchers such as Ananda (2008), HDC (2008), Chang (2007), Rahman (2007), Raja Adam (2006), Ramli (2006), Seong and Rizal (2006), Riaz and Chaudry (2004), Nurwahida and Abdul Manaf (2009), Sungkar (2008) and Yusof (2004) all testify to the positive prospects of the Malaysian *halal* food product resulting from those state supports.

The positive outlook on Malaysia's competitive edge in the halal food industry is echoed by subsequent measures taken by the government. Among these was the conception of a *Halal* Master Plan addressing issues of certification, sectored development, *Halal* integrity, implementation, timeframes and responsibilities. The Master Plan envisages three phases of the roll-out from 2008 to 2020 (Figure 2). In similar vein, the Third Industrial Master Plan (IMP3) of 2006 estimated the annual global market value for both food and non-food *halal* products at USD2.1 trillion. In lieu of this market prospect Malaysia's food manufacturers were encouraged to forge joint ventures with established food manufacturers, particularly from Australia and New Zealand, to service the ASEAN, Middle East, European and US markets which have sizeable Muslim populations. Local *halal* food products can gain easy access into these *halal* markets as Malaysia's *Halal* Certification is globally recognized.

## PHASE 1: 2008 - 2010

Develop Malaysia as a global centre for Halal integrity and prepare the industry for growth

#### PHASE 2 : 2011 - 2015

Establish Malaysia as one of the preferred locations for halal-related business PHASE 3: 2016 - 2020

Broaden geographic footprint of home-grown companies

Source: Saifol (2011)

# Figure 2. Phases of the Halal Master Plan for Malaysia

The worth of the entire *halal* industry which also includes Islamic finance is currently estimated to be between USD200 billion to USD500 billion annually, with an annual growth rate forecast of 12% to 15% for the next 10 years. Malaysia is also no stranger to this industry. In fact, the Malaysian *Halal* Certificate is one of the most sought after certification by *halal* producers worldwide (Dagang Asia Net, 2011). In this regard the country's *Halal* Research Council (2007) has listed eleven strategic thrusts to further develop and promote Malaysia as a global *halal* hub:

- 1. enhancing awareness about Malaysia as the centre for *halal* products and services;
- 2. managing the increasing competition from countries in the region;
- 3. leveraging upon outward investments to gain access to raw materials and enhance competitiveness;
- 4. enhancing R&D in product and process developments and leveraging upon latest technological developments to expand the product range;
- 5. developing *halal*-compliant services;
- 6. utilising and leveraging upon Malaysian *Halal* Standard to differentiate Malaysia's *halal* products;
- 7. ensuring product quality and food safety;
- 8. undertaking systemic development of *halal* parks;
- 9. harmonising the *halal* certification process;
- 10. enhancing the coordination among agencies involved in the development and promotion of the industry; and
- 11. strengthening the institutional capacity of organisations involved in the development and promotion of *halal* products and services.

# Enhancing the competitiveness of the halal food industry

A competitive advantage exists when a firm has a product or service that is perceived by its target market customers as better than that of its competitors. Unfortunately, entrepreneurs are often confronted with two myths surrounding the creation of a competitive advantage. One is that most good business opportunities are already gone. The other is that small firms cannot compete well with big companies.

Both of these notions are behind the fact that existing companies, large and small, do not typically welcome competitors for fear that it will threaten their current and future performance (Dess, Lumpkin & Marilyn, 2005). For some ventures, particularly those in markets where the products or services are less differentiated, answering the "Why should the customer purchase from this operation rather than the competition?" question can be difficult (Cole Ehmke, 2008). A key point to understand is that a growing business is often dependent upon a strong competitive edge that gradually builds a core of loyal customers which can be expanded over time.

Five factors theoretically determine the nature and degree of competition in an industry and the ability of a firm, whether large or small, to be successful: the bargaining power of buyers, the threat of substitutes, the bargaining power of suppliers, the rivalry among existing competitors and the threat of new competitors (Dess, Lumpkin & Marilyn, 2005; Barone & DeCarlo, 2003; Evans, 2003). Obviously, industries are not alike; therefore, each force has varying impact from one situation to another. Accordingly, various strategies may be adopted and adapted to empower a business performance (Table 1).

	Strategy	How to Implement
1	Cost leadership strategy	Companies produce products and/or services at lower costs in the industry that are difficult to be replicated by other competitors.
2	Differentiation strategy	Companies offer different products, services, or product features to customers although the products or services have the same functions.
3	Operational effectiveness strategy	Companies improve the manner in which internal business processes are executed so that a firm performs similar activities better than rivals.
4	Innovation strategy	Companies introduce new products and service especially IT- based products to customer. Companies may also develop new and unique features in existing products and services to enhance customers' perceptions.
5	Customer-orientation strategy	Companies concentrate on making customers happy by means of such as bonus points, year end sales, purchase by purchase, and the like.
6	Time strategy	Companies treat time as a resource, then manage it and use it to the firm's strategic competitive advantage. This requires that the companies have good time monitoring systems.
7	Alliance strategy	Companies work with business partners in partnerships, alliances, joint ventures or virtual companies to share and use their advantages together.
8	Entry-barriers strategy	Companies create barriers to entry for new competitors such as in terms of resources, technology, skills, knowledge, and raw materials.
9	Growth strategy	Companies increase market share, acquire more customers, or sell more products in a long time frame.
10	Suppliers strategy	Companies retain customers or suppliers to stay by 'locking' them in with certain conditions, terms of agreement and policies.
11	Niche strategy	Companies select a narrow-scope segment in specific market segmentation and become the best in quality, speed, feature or cost in that market.
12	Increase switching costs	Companies make it costly for customers or suppliers to switch to competitors.
Courses	· Adapted from Nurwahida & A	

#### Table 1. Strategy options and implementation in business organizations

Source: Adapted from Nurwahida & Abdul Manaf (2009)

Another category of strategy options has to do with the use of Information and Communication Technology (ICT) as integration platform. This may integrate firms' competitive advantages with strategy choices that may value add their long term business prospects. The potential problem with the ICT strategy is information overload. As such business organisations need to select only those information resources that are suitable to their purpose.

SWOT analysis is yet another <u>strategic planning</u> method to evaluate the Strengths, Weaknesses, Opportunities, and Threats characterizing any type of industry. With respect to the *halal* food industry

the SWOT analysis involves specifying the objective of the *halal* business venture or project and identifying the internal and external factors that are favorable and unfavorable to achieve its objectives (Table 2).

#### Table 2. SWOT analysis

Strengths (S)	Weaknesses (W)	
List of internal strengths in relation to the Halal Food List of weaknesses in relation the Halal Food Industry		
Industry	· · · · ·	

5	
Opportunities (O)	Threats (T)

List of potential opportunities from external factors that List of potential opportunities from external factors that can help to boost the *Halal* Food Industry can damage the *Halal* Food Industry

Conceptually, SWOT model helps *halal* food firms to understand the relative attractiveness of an industry and help them to deal with new challenges such as those that involve the synergy between ICT sophistication (see for egs. Laudon and Laudon, 2007; O'Brian, 2007; Turban, McLean and Wetherbe, 2007; Jongwoo Han, 2004; Evans, 2003; Hogg, 2002; Rayport, 2002; Porter, 2001; Hamelink, 2000; Kalakota and Robinson, 1999; Kroeber (1998); Kroenka (1999). Laudon and Laudon (2007) and O'Brian (2007) summarise a fivefold ICT challenges: recognizing that ICT often is the primary enabler of business solutions; increasing the technological maturity of the business management; implementing the ICT architecture that will support the business vision; and managing ICT info-structure's safety, with high security and guarantee.

An innovative strategy would be to develop a SWOT - ICT. The advantage with ICT in SWOT analysis is that it provides the basic tools and techniques for analyzing early external and internal warning signals. The ICT also provides the information necessary to make strategic decision making activities or phases, such as environmental scanning, problem detection, and solution identification.

For Malaysia's *halal* food industry the synergizing of the ICT with SWOT analysis will be facilitated by the fact that technological advancement has become an integral part of Malaysia's growth as an industrialized nation. The nation's persistent drive to engage modern technologies proves to be a great advantage to manufacturers in Malaysia, including the *halal* food industry . High priority is given towards strengthening ICT capabilities and capacities of SMEs including the *halal* food SMEs. To hasten this process, closer collaboration with specialised government research institutions and universities was forged. A dedicated fund would be set up to encourage SMEs to apply and undertake the commercialisation of potentially viable R&D results. The Government's focus on R&D is already bearing fruit with the intensity growing from 3.19% to 3.38% in one short year. The registered number of patents has also increased exponentially, doubling in number from 91 in 2004 to 160 in 2006 (SME Annual Report 2006, 2007).

# Method of the study

The method used reflects the dual objectives of identifying the negative and positive elements of Malaysia's *halal* food industry, and the ways in which an ICT-based strategy may be applied to leverage on the positive elements of the industry.

As such, the SWOT analysis as the main method of the present exercise. Following Porter (2005) the SWOT analysis entails categorizing the observed facts into four quadrants, namely Strengths (S), Weakness (W), Opportunities (O) and Threats (T). Information was gathered by interviewing academicians and professional experts in the area of *halal* business as well as Islamic business and *Muamalat*. The function of the interviews was to evaluate and validate prior information gathered from primary and secondary sources regarding the global and Malaysia's *halal* food industry.

Information was also gathered by interviewing academicians and professional experts in the area of ICT-based business strategies.

## **Results and discussion**

## Strengths

The strength of Malaysia as a leading player in the global *halal* food industry stems firstly from the fact that it is a modern and dynamic economy. Its labour productivity is relatively high compared to other ASEAN countries. Given the country's young and growing population, both consumption and production of food and beverage is only set to grow. Malaysia has built a reputation as a progressive Islamic country not only where Islam is the official religion but also one which is highly knowledgeable in Islam as a way of life including Islamic economic and business practices. The ability to combine modern economic principles and Islamic economic precepts has enabled Malaysia to conceive and implement doable Islamic business models in the *halal* food industry.

Secondly, Malaysia has proven itself highly qualified to lead the global *halal* food industry. The Malaysian Halal Certification is perceived worldwide as most valid when compared to that of non-Muslim countries. From the *syariah* perspective, Malaysian F&B products are perceived as safer and of better quality than the products of other ASEAN countries. The fact that the United Nations has cited Malaysia as the world's best example of benchmarking of *halal* food in accordance with the Codex general guidelines in 1997 affirms Malaysia's leading role in the global *halal* food industry.

Thirdly, the *halal* food industry has important export opportunities due to the diverse agricultural products available in Malaysia. This diversity when harnessed by *Halal* SMEs means that the country has sufficient capacity to meet the demand by Muslim importing countries. There was already a sense of preparedness among local *halal* SMEs to collaborate and form a consortium to achieve the critical mass needed to meet importers' demand. The businesses have some knowledge in using Internet/ICT where ICT mega projects as well as Multimedia Super Corridor (MSC) has contributed much.

Finally, the Malaysian *halal* food industry is forward looking. This is reflected by such development as the publication of an updated and reliable Business Directory. Local *halal* SMEs also benefit by the partnership or close consultancy relationship and networking with related government agencies. In addition, membership of regional and international business associations leads to the establishment and enhancement of collaborations of Malaysian players with overseas counterparts.

## Weaknesses

The weakness of the Malaysian *halal* food industry has a lot to do with the *halal* food producers and suppliers. Firstly, a conspicuous lack of professionalism. The *halal* food producers are noted for their slow follow-up responses depicting lack of seriousness in their attitude and a short-term business perspective. Each firm has its own brand instead of operating under a unified Malaysian *halal* brand identity. The products lacks attractiveness reflecting lack of professional knowledge and training in product development. Almost all the local *halal* food firms do not follow market labeling requirements especially regarding the products' shelf life.

Secondly, some *halal* food firms lack knowledge in the legal, social, and cultural environment of the importing countries. They are not able to identify consumer needs accurately in terms of taste and preferences. They enjoy little strategic and long term alliances with importers or distributors or private market agents to promote their products. They also lack the Islamic mind set and entrepreneurial skills.

Thirdly, some *halal* food suppliers are not consistent in supplying the products. They were hampered by high production costs. Because of capital shortage these firms are weak in market *niche* researches and R&D activities. It also causes them to lag in using sophisticated ICT/systems to develop their own digital products and to operate under capacity to venture into export markets.

Finally, the Malaysian local economic environment may not be insulated from the impact of global economic crisis. The latter may curtail local consumer spending as well as regional demand for *halal* food.

## **Opportunities**

Opportunities for the Malaysian halal food industry pertain, firstly, to the upward growth of the global Muslim population as potential consumers. For example, 60% of the Saudi's consumers are youths aged below 35 years) who are willing to try new products and having a high purchasing power given the steady GDP growth of their country. Similar positive trends may be witnessed in other Arab gulf countries, United States of American and the European Union (EU) countries. Growth in other related sectors such as tourism and hospitality also drives growth in the consumption of *halal* food products.

Secondly, Malaysian *halal* food producers stand to benefit from rising food production costs in EU and USA which has the impact of moving production to low-cost countries. This trend is reinforced by strong government supports for local *halal* food processing activities. Malaysian government agencies are committed to intensify awareness among international consumers about Malaysia as a *halal* hub.

Finally, the *halal* market is still neither mature nor saturated. Opportunities abound for new *halal* food products in the world market thanks to the advent of online marketplace which enable online searches and purchases of *halal* food products.

## Threats

Three major threats characterize the business environment of Malaysia's halal food industry. First,

the industry faces stiff competition from major food producers such as Thailand, Indonesia and the Philippines. The declining of the USD value to which the local currency is pegged has resulted in the *halal* food products from Malaysia being more expensive than those of Thailand, Indonesia, and Philippines.

Secondly, new global producers are producing low priced high quality food which sees Malaysia disadvantaged due to its higher production costs. Subsidized tariffs for air transportation by Thailand can switch the foreigners' direct investment (FDI) to that country. The invasion of Chinese products has translated into cheaper prices in the markets. Competitors, in addition, are using new high technology media to attract customer such as the video, mp3, web, and so on.

<u>Strengths</u> Modern and dynamic economy Malaysian Halal Certification Capacity to meet the demand Forward looking <i>halal</i> food industry	<u>Weaknesses</u> Lack of professionalism Lack legal, social, and cultural knowledge of international consumers Supply inconsistencies Global economic crisis
<u>Opportunities</u>	<u>Threats</u>
Growth of the global Muslim population	Stiff competition from major food
Rising food production costs in EU and	producers
USA	Lowering of selling prices
Online marketplace	High energy and raw material costs

Figure 3. The SWOT quadrant of the Malaysian halal food industry

Finally, Malaysia in common with other food producers has to brace the fact that high energy and raw material costs would have a negative impact on its F&B performance. For the Malaysian *halal* food industry the unstable regulatory and agricultural production environment would affect its raw material supply side. This situation is not helped by the relative weakness of the R&D in the *halal* food industry to meet rising consumer expectations.

# Conclusion

In conclusion, the Malaysian *halal* food industry is characterized by a rather balanced spread of strength, weakness, opportunities and threat factors. To enhance its competitiveness further the industry needs to incorporate advanced business processes and practices designed to better serve the rising expectations of customers, suppliers and other stakeholders. Undoubtedly, this moving forward of the Malaysian *halal* food industry will need a more comprehensive harnessing of the ICT and the online marketplace.

# References

- Abdul Manaf Bohari (2008) Management Information System. Asia e-University Publication, Kuala Lumpur.
- Ananda S (2008) Global Halal Presence. Business Today June 8 (6), Reach Publishing.
- Barone MJ, DeCarlo TE (2003) *Emerging forms of competitive advantage: Implications for agricultural producers*. Midwest Agribusiness Trade Research and Information Center Research Paper 03-MRP 5.
- Chang J (2007) Malaysia Market Development Reports World Halal Forum and Malaysia's Role. *Global Agriculture Information Network (GAIN) Report*, MY7021.
- Cole Ehmke, MS (2008) *Strategies for competitive advantage*. Department of Agricultural and Applied Economics, University of Wyoming.
- Dagang Asia Net (2011) *The Emerging of Global Halal Market*. [cited May 11, 2011]. Available from: <u>http://www.dagangasia.net/articles</u>.
- Dess GG, Lumpkin GT, Taylor ML (2005) Strategic Management (2 ed). McGraw-Hill Irwin, New York.
- Dierks (2011) Market Watch 2010 The Food Industry. Malaysian-German Chamber of Commerce & Industry.
- Evans N (2003) *The needs for enterprise innovation*. [cited May 24, 2010]. Available from: <u>http://www.informit.com</u>.
- Halal Research Council (2007) *Development of the halal industry*. [cited 28 May, 2010]. Available from: www.halalrc.org.
- Hamelink (2000) ICT for information age. Prentice Hall, New Jersey.
- HDC (2008) HDC will be pro-business. *The Halal Journal*. [cited 25 June, 2008]. Available from: http://www.halaljournal.com/artman/publish/article\_906.shtml.
- Hogg DL (2002) Introduction to ICT. Prentice Hall, New Jersey.
- Janis MZ (2004) Malaysian Standard MS1500. Standards & Quality News 11 (4).
- Jongwoo Han (2004) *Contemporary issues in the information age*. [cited 24 May, 2004]. Available from: http://classes.maxwell.syr.edu/PSC300 103/.
- Kalakota R, Robinson M (1999) e-Business: Roadmap for success. Addison-Wesley, New Jersey.
- Khoo Kheng-Hor, Smith NM (1999) *Strategic management: A delightful blend of academic learning and street-smart practices.* Pelanduk Publications, Subang Jaya.
- Kroeber DW (1998) Management Information System: A handbook for modern managers. Penguin Publication Team, Washington.
- Kroenka D (1999) Management Information System. Mitchell Publishing, Washington.
- Laudon, Laudon (2007) Management Information Systems. McGraw-Hill, New York.

- Malaysia (2000) Ninth Malaysia Plan 2000-2005. Economic Planning Unit, Jabatan Perdana Menteri, Kuala Lumpur.
- Malaysia Food Business Directory (MFBD) (2007) *Food industry in Malaysia: An overview.* [cited 2 May, 2007]. Available from: http://www.foodbizmalaysia.com/ttd bizenterprise.
- Malaysia (2008) The Global Halal Hub. New Straits Times. July 12.
- Malaysia (2006) Third Industrial Master Plan (IMP3). MITI, Kuala Lumpur.
- Malaysian Institute of Economic Research (2005). *Halal food industry deserves more attention*. MIER, Kuala Lumpur.
- O'Brian JA (2007) Management Information Systems: Managing information technology in the busines enterprise. MacGrawHill Irwin, New York.
- Porter M (2001) Strategy and the internet. Harvard Business Review 79 (3), 63-78.
- Porter ME (2008) The five competitive forces that shape strategy. Harvard Business Review.
- Raja Adam Z (2006) RM100m boost to make Malaysia halal hub. Business Times. Sep 2006.
- Ramli N (2006) Halal The new global market force. Legal Insights A Skrine Newsletter, Issue 2/2006, June 2006. [cited 21 May, 2006]. Available from: <u>http://www.skrine.com/get.php</u>.
- Rahman L (2007) Syariah and Malaysian Halal Certification System. Bengkel Audit dari Perspektif Syariah. Bahagian Hub Halal, Jabatan Kemajuan Islam Malaysia.
- Rayport J (2002) Introduction to e-commerce. McGraw-Hill/Irwin MarketspaceU, Boston.
- Riaz MN, Chaudry MM (2004) Halal food production. CRC Press LLC, Florida.
- Saifol Bahli (2011) Awareness of the halal industry. *International Halal Conference Pakistan 2011*. Sheraton Hotel, Karachi, Pakistan. 22 23 March.
- Seong LW, Rizal MAW (2006) The potential of halal industry in Penang. *Penang Economic Monthly*, November **8** (11).
- Sungkar I (2008) The global trends and halal trade issue. The Halal Journal, May/June 2008.
- Sungkar I (2008) Muslims' awareness of halal in the age of globalisation. *The Halal Journal*, May/June 2008.
- SME Annual Report 2006 (2007) *Potential growth areas for SMEs*. National SME Development Council, Kuala Lumpur.
- Turban E, McLean E, Wetherbe J (2007) *Information technology for management: Making connection for strategic advantages* (2<sup>nd</sup> ed). John Wiley & Sons, New York.
- Nurwahida Fuad, Abdul Manaf Bohari (2009) Competitive advantages and strategy options for women entrepreneurship: ICT as integration platform. *The Third International Conference on International Studies (ICIS2010)*. Organised by College of Law, Government and International Studies (COLGIS) and Institute of Tun Dr. Mahathir Mohamad's Thoughts (IPDM) of University Utara Malaysia (UUM), Association of International Studies Malaysia (AIS) and University of Paris-Diderot, France. Location: Hotel Istana, Kuala Lumpur. 1-2 December.

Yusof MH (2004) Halal Certification Scheme. Standard and Quality News 11 (4).