

Collaboration, Wealth and Value Creation, SMEs' Halal Products Communities, and Information Systems

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ABSTRACT

This paper takes the form of a general review. It introduces the notion of government-industry collaboration and information sharing in the Halal industry that work together for achieving common goals such as in economic, health, environmental, and social well-being—moving towards making living more meaningful, productive, fruitful and profound. Technological empowerment—in particular inter-organizational information systems (IS) and information sharing—is regarded as the key driver for supporting a sustainable economic development at the global, regional and local levels. Through IS, it is viable and essential to establish a global knowledge base, shared, used, enhanced and contributed to by a variety of experts and professionals throughout the world in different fields toward achieving common goals.

The paper raises awareness of relevant government-industry collaboration initiatives, leveraging on the strategic use of IS to promote individual and community growth as well as to facilitate sustainable development. As there are five main components of an IS—hardware, software, data, procedures/processes, and people—this also mean that many different skills and effective change management programs are required to ensure users' acceptance, leadership commitment and business processes between organizations are improved in ensuring ISs are effective in delivering the business goals of participating partners and collaborators.

KEYWORDS

Collaboration, Halal, SME Communities, Information System, Halal Product Price Indicator Portal

1 INTRODUCTION

Collaboration among various types of communities, facilitated by Information System (IS) and Information and Communication Technologies (ICT), can lead to increased social and economic development opportunities [1]. Across the world, collaboration has been in fashion in the business community over the past two decades. Inter-organizational information systems have been said to play an important enabling role in many cases [2]. Likewise, computational science is now indispensable to the solution of complex problems in every sector, from traditional science and engineering domains to such key areas as national security, public health, and economic innovation [3].

Malaysia plans to become a global hub for Islamic Halal food by 2010, using its edge over other Muslim nations in trading, logistics, banking and Halal certification [4]. Halal is a supreme term for all Muslims across the globe. "Halal" in Arabic means permissible according to Islamic law. It is a term designated to any products or services. Halal today is a global industry.

Companies all over the world have amplified their income from food exports by indulging the growing Muslim consumer market. The annual global market value for the entire Halal trade is USD2.1 trillion [5]. The Malaysian government in its 2006-2010 national economic development plans talks about creating a nodal agency to promote the country as a center for Halalfoods that meet Islamic dietary requirements and the religiously approved way of slaughtering animals. Malaysia certification standard for Halalfood moreover is widely recognized. In addition, it has a highly developed logistics network including ports, and is fast becoming a hub for Islamic financing [6].

The Halal market is growing at a tremendous rate; approximating at a global rate of 2 billion Muslim consumers all over the world. However, there are no more than 6 million with access to Halalproducts [6]. With such a multiplier effect, Malaysia should question on how they can capitalize on the 25% of the global market and capture the world's Halalmarket. Furthermore, with the onset of global diseases such as bird flu, mad cow disease, etc., Halalis being recognized as a new benchmark for safety, hygiene and quality assurance even by non-Muslim consumers. As stated in the Third Industrial Master Plan, Malaysia is aiming to become a global hub for the production and trade of Halal products and services. Consequently, the government encourages the establishment and the development of Halal small and medium enterprise (SME). Currently, there are approximately 2000 Halal certified industries and more than 177 thousand certified products [7].

Therefore, the objective of this paper is to propose a conceptual IS portal to help promote the local Halal SMEs' products. As there are five main components of an IS –hardware, software, data, procedures/processes, and people– this also mean that many different skills and change management programs are required to ensure users' acceptance, leadership commitment and business processes between organizations are reengineered in ensuring ISs are effective in delivering the business goals of participating partners and collaborators. This paper also briefly discusses Halal definition, businesses and communities, certification, and current issues in Malaysia. Finally, the Halal Product Price Indicator Portal model and its potential benefits is illustrated and explained.

2 LITERATURE REVIEW

2.1 Halal Definition

In Arabic, Halal generally means permissible or authorized according to Islamic law. It refers to things or actions that will not imposed punishment to the doer. A general rule in Islamic law is that everything is Halal, except if stated otherwise. Halal is a supreme term for every Muslim across the globe. A Muslim should be able to determine which is Halal and which is not. Today, the area of Halal covers not merely food, but has extended to cosmetics, pharmaceutical, and even services such as finance. The opposite of Halal is Haram; it is defined as what is forbidden according to Islamic law. However, the term non-Halal is often used in preference of Haram. In Malaysia for example, non-Muslims restaurants and food are signed non-Halal [8].

2.2 Halal Business

Halal today has included in the area of business and trade. It has become a new benchmark for safety and quality assurance [9]. Certified Halal products are generally acceptable by both Muslim and non-Muslim consumers [10]. This acceptance is due to the wholesomeness concept of Halal, which covers not only the Islamic law requirements, but also the requirements for good food, in terms of hygiene, sanitation and safety factors [9].

The global halal industry is enormous. According to HDC, The annual global market value for the entire Halal trade reach USD2.1 trillion. In UK alone, the retail sales of Halal meat grasp USD90 million[5]. In Asia, with a Muslim population of approximately 1 billion, the potential is huge.

Knowing the potential of Halal industry, the Malaysian government focused on making the country an international Halal hub. In the Ninth Malaysia Plan, Malaysia is aiming to be a stop center for Halal certification worldwide and positioned as the knowledge center for trade and investment promotion of Halal products. For that reason, the government established the Halal Industry Development Corporation (HDC) and organize annual international event such as the Malaysia International Halal Showcase (MIHAS) and World Halal Forum (WHF) [7]. SMEs involved in activities such as food processing, pharmaceuticals, and other consumables are encouraged to obtain Halal certification to leverage the country's competitive edge in becoming the Halal hub. The government even provides assistance to companies in a form of grant as much as RM150,000 per

company for the development and promotion of Halal products, and another RM250,000 for productivity and quality improvement [11]. As a result, the number of Halal-certified enterprises started to grow and in 2010, it grew significantly by 20%, from 1,399 companies in 2009 to 1,679 companies. 65 percent of these industries are from food clusters. [12].

2.3 Halal Certification in Malaysia

Unlike other countries around the world that have private Islamic organizations issuing Halal certificates, Malaysia's Halal certificate is issued by the government, particularly by the Malaysia Department of Islamic Development (JAKIM). Having the government controlling and monitoring the Halal certificate made Malaysia's Halal brand much stronger than others [10].

According to Yusoff[13], Halal food certification refers to "the examination of food processes in its preparation, slaughtering, cleaning, processing, handling, disinfecting, storing, transportation and management practices." The Halal concept, specifically food, should apply to all stages of processing, "from farm to table".

The benefits of Halal certification are clear: (1) It provides confidence to consumer in consuming the products, (2) it can be used as a marketing tool and provides the competitive advantage for manufacturers, (3) it indicates that not only the product satisfy Islamic law requirements, but also adheres to stringent hygiene and sanitation practices, and (4) it also provides a mechanism for the authority to audit and monitor Halal food [13].

A study of consumer behavior in Malaysia [9] shows that both Muslims and non-Muslims accept and consume Halal products, and they also satisfied with the quality. For manufacturers, the impact is more evident. In 2007, since the United Arab Emirates recognition of MUIS' (Islamic Religious Council of Singapore) Halal certification system, the country's food exports to UAE rocketed by 67% in just one year [14].

2.4 The Roles of Information Systems in the Halal Industry

Across the world, collaboration has been in fashion in the business community over the past two decades. Inter-organizational information systems (IOS) have been said to play an important enabling role in many cases [2]. An IOS involves information flow among two or more organizations [15]. By connecting the information systems, business partners are would expect to achieve costs reduction, and improve the effectiveness and timeliness of business processes. The most prominent types of information systems for inter-organizational collaboration include B2B, B2C, C2C and E-Government. As there are five main components of an information system - hardware, software, data, procedures/processes, and people [16] –this also mean that many different skills, change management programs, users' acceptance, inter-organizational leadership commitment and business processes improvement are required in ensuring IOSs are effective in delivering the business goals of participating partners and collaborators. Inter-organizational relationships are not necessarily always cooperative, and they may compete with each other for political power, budget, or just pride [17].

The non-technological solution needs to be addressed as well. Leavitt's Model of Organizational Change [18] proposes that change may focus on one of the four subsystems in an organization. According to Leavitt, the effectiveness of a program or solution depends on balance between the four organizational subsystems: technology, structure, tasks and people. The model shown in Figure 1 demonstrates how these four elements are interrelated. These four components are interdependent, where a change in one can result in change in others. When collaborative IS solution is introduced to multi-organizations, the other components often need to be adjusted and modified in order to reap the full benefits and maximize the impact of innovative IS solution.

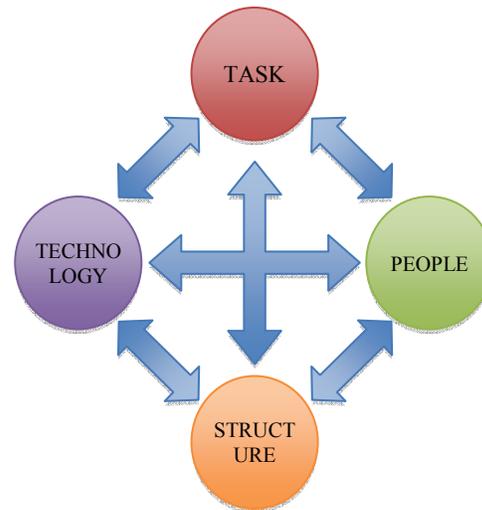


Figure1. Leavitt's Model of Organizational Change.

2.5 Web Portal

A web portal is a term for a website that derived information from various sources and presented in an integrated form. Portals can accommodate large audiences which can be translates to a large number of advertising viewers. Murray [19] express that information

portal has the ability to organize large context based information and connects people with it. According to White [20], the basic architecture of an information portal mainly comprise of the business information directory, the search engine, the metadata crawler, the publishing and subscription facilities, and the import and export interfaces, all integrated in a web server.

According to Dias [21], there are several types of portals classified by their type of environment (public or corporate) and their functions (decision support and/or collaborative processing). The portal discussed in this paper should fit the category of public in terms of environment, and collaborative processing in terms of the functions.

2.6 Price Indicator Information System

The Price Indicator Information System (PIIS) portal in this paper refers to a specific feature that presents information about Malaysia's local Halal product prices. The idea was inspired by the price indicator information system found in the website of Ministry of Trade and Industry of Saudi Arabia (<http://www.cpi.mci.gov.sa>) and also in the website of Ministry of Business and Trade of Qatar (<http://market.mbt.gov.qa/>). According to Al-Abosh [22], In early 2010, The Ministry of Trade and Industry of Saudi Arabia launched the consumer price indicator information system. The system provides consumers information on various types of products and commodities, and also the price levels and comparison between products. The prices are updated on a daily basis. With this system, consumers are able to choose suitable product(s) for their level of income and decide from which outlet they want to buy. In addition, the system

also provides information to researchers and analysts on the movement of commodity prices through a series of time. Similar system can be found in Qatar's Ministry of Business and Trade website, but with additional English language and more variety of goods.

Regarding the notion to promote local Halal products, the portal can utilize this feature to present relevant Halal products produce by local SMEs including their prices, where to buy, benefits as well as health tips. Therefore, it will attract consumers to visit the portal and it will increase the popularity of Halal products in the local and global marketplace. Through the portal, experts and professionals in different fields of Halal are empowered to contribute their knowledge effectively and efficiently in the furtherance of human well-being at large. In essence –blended with inter-organizational process improvement and change management programs, inter-organizational leadership commitment and users' acceptance– PIIS is beginning to level the playing field for creating a sustainable path to equitable human, social and economic development for the Halal products SMEs.

3 CURRENT ISSUES

Malaysia is a potential growth place for Halal SMEs as the government fully supports the establishment and development of Halal products and industry. Many efforts have been done to accomplish the country's goal on becoming the world's Halal hub. These efforts include from policies written in the Third Industrial Master Plan, grants, and annual events, until to the establishment of relevant organization such as Halal Industry Development Corporation (HDC). However, as

expressed in a study by Noohet al. [23], the awareness of the consumers towards local or domestic products is still low. Lack of information on most of the Halal products in the market is one of the main factors that contribute to this customers' low awareness situation.

Another issue is that even though 85% of the Halal certified companies and 68% of certified Halal products come from SMEs [7], most of the Halal products well-known in the market are those from big or multi-national companies. This may be due to their large capital, marketing experience and strategy in the business industry.

In terms of promotion, currently there are several websites that promote Halal SMEs in Malaysia. However, there is no specific website that distinguished between local or Muslim companies and those who are not. Most of these websites also promotes Halal products and companies that are from outside Malaysia.

Based on the above scenarios, there is an urgent need to consolidate and synergize efforts at the national level. Government-industry collaboration involving JAKIM, as the lead government agency in promoting Halal products, and local Halal products producers and SMEs need to be established, promoted and nurtured. Inter-organizational IS such as the Halal portal with price indicator information specifically for local Halal products and companies can be introduced, promoted and enhanced, with JAKIM taking the leading role in terms of Halal products branding.

4 HALAL PRODUCT PRICE INDICATOR PORTAL MODEL

The proposed portal will incorporate government agency such as the Malaysia Department of Islamic Development (JAKIM) and local Halal SMEs, particularly manufacturers, sales outlets and shops. Figure 2 shows the relationships between local Halal SMEs, JAKIM, and potential customers through the Portal.

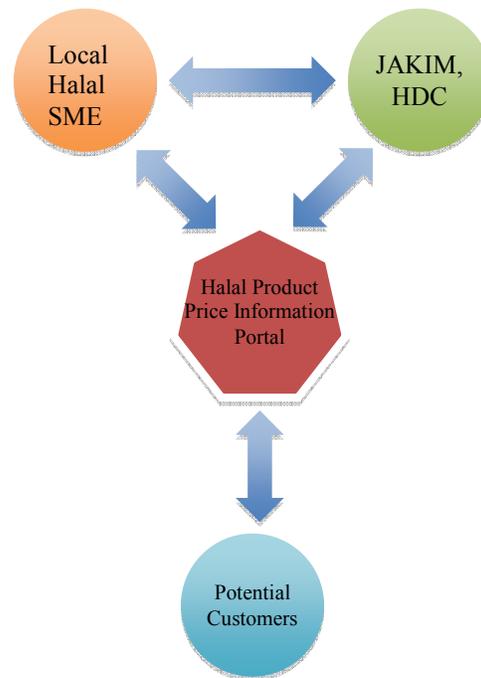


Figure2. Halal Product Price Information Portal

JAKIM is the sole Halal certification department in Malaysia. Since it has the database of every Halal certified manufacturers and products, it is the most suitable organization to manage or/and endorse the Portal. Local Halal SMEs refers to every certified manufacturer and shop, which is owned by local or Muslim citizen. These companies interact with JAKIM when they apply for Halal certification. The Portal will be the virtual marketplace where the local and global Halal community – local SMEs, JAKIM, HDC

and potential customers – transact and benefit from.

5 BENEFITS OF THE PORTAL

The Halal Product Price Indicator Portal will benefit all stakeholders involved. The local SMEs will have a new marketing and sales channel in promoting and selling their products. The portal will act as a media of promotion for their products. This will help them penetrate new and global markets they cannot reach within their current capabilities. Customers are the direct beneficiaries of the portal as they can browse through a variety of Halal products made by different manufacturers from a reliable source, namely JAKIM. At the same time, they can compare between them in terms of prices and specifications before deciding to purchase from physical shops or directly through the portal. Price indicators –upward or down trend diagrams available in the portal will tell customers the direction of prices depending on their previous movement, as a result, customers can decide to purchase now or delay the purchase according to price prediction. JAKIM as the one who maintain and manage the portal will benefit indirectly from it by promoting themselves as trusted major regulators in the Halal product market.

In terms of social and economic value, the establishment of the Portal promotes price transparency and fairness, helping local Halal SMEs find their roots in a very competitive market and allows middle-class customers compare between prices to decide what and where they can purchase Halal product suitable for them. In addition, safety, hygiene and quality assurance of Halal products can be guaranteed.

6 CHALLENGES IN IMPLEMENTATION

Several challenges may arise in implementing the Halal Product Price Indicator Portal. First, identifying local and Muslim owned manufacturers and suppliers can be quite difficult. Some manufacturers are built as a joint stock company, which means it has more than one owner (e.g. part of the company is owned by a non-local or a non-Muslim); making the ownership status of the manufacturer ambiguous. The second challenge is to enforce the local Halal SMEs to update their product prices on a regular basis, as they may not comply to update their products. Thirdly, there is also a possibility that the companies submit false information and prices. Thus, an appropriate policy must be constructed and actively enforced by JAKIM to establish and ensure continuous customers' trust on the Portal.

In terms of implementing IS, the challenges are posed by all the five main components of an information system, namely hardware, software, data, procedures/ processes, and people [16]. This also mean that many different skills are needed, change management programs need to be continuously implemented and monitored, users' acceptance and buy-in must be obtained, inter-organizational leadership commitment must be granted, and inter-organizational business processes need to be reengineered. These challenges need to be addressed in ensuring the Portal is effective in delivering and continuously meeting the business goals of participating partners and collaborators.

7 CONCLUDING REMARKS

The proposed concept of Halal Product Price Indicator Portal can provide a place for local Halal SMEs in Malaysia to promote their products in the virtual marketplace –promotes price transparency and fairness, safety, hygiene, quality assurance, physical and spiritual health. It is believed that the involvement of relevant government institution will add value to the Portal and nurture trust from customers, locally and globally. The future concept of the Portal can be extended to provide more features and functionalities such as dynamic pricing; mobile m-commerce; net marketplace where customers or businesses can interact, purchase and pay products directly to suppliers via the Portal; knowledge and information sharing on Halal products where customers and suppliers can interact directly with Subject Matter Experts for advice and assistance in adding societal value and wealth creation. However, more research on this issue is definitely needed.

8 REFERENCES

1. Passerini, K. and Wu, D.: The new dimensions of collaboration: mega and intelligent communities, ICT and wellbeing, *Journal of Knowledge Management* 12(5), 79--90 (2008).
2. Li, F. and William, H.: *New Collaboration between Firms: The Role of Interorganizational Systems*. Department of Management Science, University of Strathclyde, Glasgow, UK (1999).
3. President's IT Advisor Committee.: *Computational Science: Ensuring America's Competitiveness*, Arlington, Virginia. National Coordination Office for IT Research and Development (2005).
4. Halal Guide. Malaysia Goes High-Tech in Bid to Become Islamic Halal Hub, http://halalguide.org/Malaysia_Seeks_to_Become_Islamic_Halal_Hub.html
5. Halal Industry Development Corporation. Halal Market Information, http://www.hdcglobal.com/publisher/bhi_market_informaton.
6. Nik Muhammad, N.M., Md Isa, F., and Kifli, B.C. Positioning Malaysia as Halal-Hub: Integration Role of Supply Chain Strategy and Halal Assurance System. *Journal of Asian Social Science* 5(1), 44--52 (2009).
7. Halal Industry Development Corporation. Halal Industry Statistics, http://www.hdcglobal.com/publisher/alias/bhi_industry_statistics?dt.driverAction=RENDER&pc.portletMode=view&pc.windowState=normal&pc.portletId=hadirGraphwb.hadirWebPortlet
8. Wilson, J. and Liu, J.: Shaping the Halal into a brand? *Journal of Islamic Marketing* 1(2010).
9. Bistari, M.Z.: *Standards & Quality News*, July-August (2004).
10. Danesh, S.M., Chavosh, A., and Nahavandi, M.: *Comparative Analysis of the Muslims' and Non-Muslims' satisfaction with Halal products* (2010).
11. Ministry of International Trade and Industry Malaysia. *Third Industrial Master Plan* (2006).
12. Halal Journal. OIC Eyes The USD580 Billion Global Halal Market, [http://www.halaljournal.com/article/1409/--oic-eyes-the-usd580-billion-global-halal-market\(2008\)](http://www.halaljournal.com/article/1409/--oic-eyes-the-usd580-billion-global-halal-market(2008)).
13. Yusoff, H.: *Halal Certification Scheme: Standards & Quality News*, July-August(2004).
14. International Enterprise Singapore. Fast-growing food exports provided a boost to total food trade with UAE by more than 60% in 2007, <http://www.iesingapore.gov.sg>
15. Turban, E., Leidner, D., Mclean, E., and Wetherbe, J.: *Information Technology for Management: Transforming Organizations in the Digital Economy*. John Wiley, Hoboken, NJ(2008).
16. Kroenke, D.M.: *Using MIS*. Pearson, Upper Saddle River, NJ(2011).
17. Mitchell, K.D.: Collaboration and information sharing: An ROI perspective? *Public Manager*, 31(1), 59(2002).
18. Marchewka, J.T.: *Information Technology Project Management*. John Wiley, Danvers, MA(2010).
19. Murray, G.: The portal is the desktop. In: Dias, C.: *Corporate portals: a literature*

- review of a new concept in Information Management. International Journal of Information Management 21, 269--287 (2001).
20. White, C.: Enterprise information portal requirements. In: Dias, C.: Corporate portals: a literature review of a new concept in Information Management. International Journal of Information Management 21, 269--287 (2001).
 21. Dias, C.: Corporate portals: a literature review of a new concept in Information Management. International Journal of Information Management 21, 269--287 (2001).
 22. Al-Abosh, K.: Saudi Arabia launches index of consumer prices in their domestic markets: Arabia Business (2010), <http://www.arabianbusiness.com/arabic/580084>
 23. Nooh, M.N., Nawai, N., Dali N.R.S., and Mohammad, H.: Halal Certification: What the SME Producers Should Know. Proceedings of the 1st Entrepreneurship & Management International Conference, Kangar, Perlis (2007).