

Halal Industry in Singapore: A Case Study of Nutraceutical Products

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Abstract

The increasing demand of Halal Nutraceutical products by consumers, Muslim entrepreneurs and non-Muslim entrepreneurs entail a need to analyze the development of the Nutraceutical sectors within the Halal Industry in Singapore. This study will illuminate the potential growth of the Halal industry which has become a significant contributor to all facets of the economic growth in Singapore. This study will also help to further improve the compliance towards halal standard among the participants and key players of the halal industry. This too will encourage investment of resources in Halal Research and Development in the road to transform Singapore into a leader in the Halal market. Focus of this study on non-food products, which has the capability to expand from its own niche market to a global market, especially in a commercial hub like Singapore. For this reason, non-Muslims entrepreneurs in the halal industry need to have a clear understanding and the right perception of the Halal Concept for it would contribute towards the creation of a halal business environment in Singapore.

Keywords: Halal Nutraceutical product; Halal Consumer Behaviour; Muslim and Non-Muslim Entrepreneurs' Perceptions

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1.0 INTRODUCTION

The purpose of this research is to analyze the development of the health and nutraceutical sectors within the Halal Industry in Singapore. The findings will illuminate the potential growth of the Halal industry which has become a significant contributor to all facets of the economic growth in Singapore. This study will also help to further improve the compliance towards halal standard among the participants and key players of the halal industry. This too will encourage investment of resources in Halal Research and Development in the road to transform Singapore into a leader in the Halal market. This research is focused on Nutraceutical products, which has the capability to expand from its own niche market to a global market (The Global Market Potential of Halal, 2010), especially in a commercial hub like Singapore.

Singapore's strategic location at the very heart of Asia is a significant factor for the potential growth of its halal Industry. Surrounded by a predominantly Muslim populated region, Singapore is the natural gateway to some 350 million Muslim in South East Asia. Singapore signed its first free trade agreement (FTA) with the six-Nation-Gulf Cooperation Council (GCC) in November 2006. Qatar, Kuwait and the United Arab Emirates have agreed to recognize Islamic Religious Council of Singapore Halal Certification and Halal Mark. This recognition augurs well for Singapore position as a vital trading hub and it will help boost halal trade between Singapore and the GCC countries.

In Singapore some 9,264 halal certificates are being issued by the Singapore Islamic Religious Council in the year 2009 (Singapore Halal Directory 2012/2013). In 2011, the number of halal-certified premises stood at 3,000 and this number is set to grow by 60% to 5000 premises in 2015, halal products approved by Muis went up seven times from 2,240 to 15,600 in the last decade, according to the Dr. Yaacob Ibrahim, the Minister for Muslim Affairs, when speaking at the Muis Halal Seminar (Channel News Asia, 9th October 2011).

Given this scenario, it is thus important for the Singaporean community, both Muslim and non-Muslim, to recognize the potential of the Halal industry. This is because delving into an emerging billion dollar industry such as the Halal industry could help to further develop the economy of Singapore just as it would serve to solve some of the long standing problems faced by the Muslim community. There are reasons why the Halal industry is important to Singapore's growth as a multi racial society. Many Muslims and non Muslims consumers still do not understand the spirit of Syariah governing these products. Halal principles are not confined to the strictly religious, but involve health, cleanliness and safety. This study will help to deepen understanding of the concept of Halal so as to familiarize non-Muslims and non-Muslims in Singapore about Halal principles, particularly in the areas of nutraceutical products.

2.0 BACKGROUND OF THE STUDY

The halal industry is a lucrative trillion dollar business globally. A research conducted by the World Halal Secretariat estimated that the global halal products market is estimated at a whopping USD2.3 trillion (not including banking), which USD1.4 trillion, 67 % of this market represents food and beverages. Pharmaceuticals, on the other hand, make up USD506 billion, 22 % with cosmetics and personal

care amounting to USD230 billion (The Halal Journal, 2010). Given the huge demand from 1.8 billion or 25% of the world population, according to new population projection by the Pew Research Centre (Forum on Religion & Public Life, 2010), halal consumers worldwide, business entrepreneurs and governments around the world are tapping into the halal industry for the economic benefits it offers. To reap the tremendous economic benefits the halal industry stands to offer, effective business strategies need to be in place by halal entrepreneurs. Halal products and services are also gaining increasing acceptability among non-Muslim and the global market value trade in halal food and non-food products is estimated at US\$2.1 trillion annually. This market has created interest among producing countries, both Muslim and non-Muslim. The growing interest in the potential of the market has hastened the move towards the development of global standards, as well as expanded the coverage of standards to include activities, such as logistics and packaging. (The 3rd Industrial Master Plan, IMP3, 2010)

Halal industry is all about being on bringing to the world a better quality of life. Halal products and services are fast gaining worldwide recognition as a new benchmark for safety and quality assurance. Many of the proponents of halal value proposition constitutes not only the profile local players who dare to venture into the global market but now the big international player are joining this lucrative bandwagon.

Global acceptance of the Halal industry is growing at a feverish pace based on the keen interest shown by regional and international companies. Apart from countries with Muslim majority like Pakistan, Iraq, Turkey, Kuwait, Indonesia and Malaysia, even countries with minority such as USA, UK, France, Germany, Australia and Russia has started to educate themselves in understanding the value concept of 'Halal & Tayyib'.

■3.0 PROBLEM STATEMENT

Singapore has always prided itself from being open and receptive to look for to the 'best practices' in the realm of syariah compliant products and was known to have sent its personnel abroad to learn from countries known to possess such best practices. There exists a practice of bringing in experts to Singapore. This can be seen in the Islamic Banking and Finance sector in the recent years. The Global Halal Industry has many similarities to the Islamic Banking and Finance industry. At the heart of it, both industries strive to serve the Muslim community and the growing purchasing power of Muslim communities by focusing on Shariah-compliance aspect of respective products. Both industries have grown beyond looking at their respective domestic markets and are looking for cross-border flows to drive growth and achieve economies of scale. Both industries have piqued the interest of the Singaporean government and businesses which have recognised the potential commercial value as well as the humanistic values ingrained in Syariah compliant products.

One of the main considerations that undergird this study is, before these business strategies can be formulated, are halal entrepreneurs equipped with the right understanding and perception of *halal*? In seeking answers to this question, it is critical to take into account two distinct groups of 'halal entrepreneurs', whose right understanding and perception of halal need to be studied. The Non-Muslim and Muslim entrepreneurs in the halal industry can offer insights into their behavior and strategizing based on their respective understanding and perception of halal. A related issue in the pursuit for answers for this question hinges on the fact that 'halal consumers' understanding and perception in a specific halal market could be a key factor for effective business strategies to be devised.

Tackling these challenges will help halal entrepreneurs to appreciate why halal consumers shy away from purchasing their products even though there is a halal logo, the factors that influence purchasing of competitive halal products, why halal consumers still buy 'halal claimed' products (without the halal logo) and the significance of halal certification to both the halal consumers and halal entrepreneurs communities.

■4.0 THE CONCEPT OF HALALAN AND TAYYIBAN

The word *halal* and *tayyib* have been mentioned repetitively in the holy Qur'an. However, its understanding, by many Muslims is shallow to say the least. Many understood that food is *halal* as long as it does not contain pork or liquor. The word *halal* in Arabic means something that is permissible (Ibrahim Mustaffa *et al.* 1989). From the perspective of Islamic Jurisprudence (*Fiqh*), the word means a choice that is allowed by the Islamic law (*syari'at*). That is one has a choice either to do or not to do it.

In another word, it is synonym with another arabic word: "*mubah*" (Sanu, 2000). The opposite is *haram* which means totally not allowed or forbidden. According to the fundamental of Islamic Jurisprudence (*Usul Fiqh*) it is defined as something that must be avoided according to the Islamic law (Ibn Abd al-Barr, 2000). Both terms however are a part of the principles of Fiqh.

There may be changes according to place, time and situation. However, each difference must be based on the due process of *ijtihad* (decision making process). Based on the language definition, the word *tayyib* has been traditionally translated as pure (Ibn Rajab, 1980), good and superb¹. The opposite of it is "*al-khabith*" which means something that is not good, not perfect, bad, rotten and bring harms (al-Marbawi, 1990). It connotes bad quality, imperfection and impurity. (Anas Mohd. Yunus, A., & Wan Mohd. Yusof *et al.* 2010).

Consequently, the phrase *halal* and *tayyib* goes simultaneously together to create a different level of consumerism and to elevate the stringent criteria in not only food industry but in every facets of the Muslim life. This is in line with Allah S.W.T. proclamation that He is pure and except nothing less but pure. (Hadith narrated by Muslim) In this aspect halal and tayyib encompasses not only dietary consumables but also in cosmeceuticals, personal healthcare, nutraceuticals, and pharmaceuticals products.

Tayyib

Besides the problem of *halal* & *haram* the second aspect that must necessarily be given attention to, is the word *tayyib*. This word is not used in relation to food in general, but it also covers various circumstances such as our intentions, words, acts, and beliefs (Ibnu Rajab,

¹Ibn Rajab, 1980)The writers are of the opinion that the word *tayyib* can be aptly translated as 'with quality' or 'surpassed standard quality' in context of modern usage of the word quality.

1980) In general, the concept derived from this word is rather abstract and seemed to suggest to a separate standard (Anas Mohd. Yunus, & Wan Mohd Yusof *et al.* 2010).

First: The use of the word *tayyib* in the holy Qur'an is always associated with the acceptance of a particular deed. It is linked closely with purity of one's heart in doing something. For example, a hadis of the prophet pbuh narrated by Abu Hurairah r.a stated that the messenger of Allah S.A.W which means:

Abu Hurairah r.a reported that the messenger of Allah s.a.w said:

عن أبي هريرة , قال رسول الله صلى الله عليه و سلم : أَيُّهَا النَّاسُ إِنَّ اللَّهَ طَيِّبٌ، لَا يَقْبَلُ إِلَّا طَيِّبًا،
 “Verily Allah the Exalted is pure. He does not accept but that is pure.

Allah commands the believers with what He commanded the messengers. Allah the Almighty has said:

يَا أَيُّهَا الرُّسُلُ كُلُّوْا مِنَ الطَّيِّبَاتِ وَاعْمَلُوا صَالِحًا إِنِّي بِمَا تَعْمَلُونَ عَلِيمٌ
 “O Messengers, Eat of the good things and act righteously” (23:51-53) and Allah S.W.T also said: “O You who believe! Eat of the good things that We have provided you with”
 (2:167 -172)

Then the Prophet mentioned of a person who was away farer from a distance with dishevelled hair and dusty face. He raised his hands towards the heaven and called out:

“O My God! O My God!” while his food was haram, his drinks were haram and his clothes too were from haram sources; in fact, (his mouth) had been fed with that which were haram; how can his prayers be answered?

(Hadith narrated by Muslim)

Second: Al-Imam an-Nawawi *Rahimahullah* explains that in the above *hadith* does not simply mean that the substance is *halal* (lawful) but that it is also free from *shubhah* (doubtful) elements. (Sahih Muslim complementary by an-Nawawi, 1978)

Third: *Tayyib* as a quality standard for goods or products. In this matter, (Al Sonhadji, 1990) said: “Allah commands the believers to eat good and pure things that Allah has provided and be grateful if they really worship Him” Good and pure foods are divided into two categories:

- a. Good and pure in quality
- b. Good and pure because it is halal.

According to Ahmad Al-Sonhadji (1990), Food that is of good quality is well known. Besides having good taste, it also has necessary vitamins and nutrients. As for *halal* food, it is a term defined by religion. At times, a particular food type is not of quality but *halal* status. So men are asked to give priority to food of good quality, both in terms of decency or healthy when choosing food and lawful terms of religious requirement as well. Besides the problem of *halal* & *haram*, the second aspect that must necessarily be given attention to, is the word *tayyib*. This word is not used in relation to food in general, but it also covers various circumstances such as our intentions, words, acts, and beliefs (Ibnu Rajab, 1980) In general, the concept derived from this word is rather abstract and seemed to suggest to a separate standard.

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Abu Hurairah r.a reported that the messenger of Allah s.a.w said:

“Verily Allah the Exalted is pure. He does not accept but that is pure. Allah commands the believers with what He commanded the messengers. Allah the Almighty has said:

“O You Messenger! Eat of the good things and act righteously”
 (23:51-53)

and Allah S.W.T also said:

“O you who believe! Eat of the good things that We have provided you with”
 (2:167 -172)

Then he (the Prophet) mentioned (the case of) the man who, having journeyed far, is dishevelled and dusty and who stretches out his hands to the sky (saying):

“O Lord! O Lord!” (while) his food was unlawful, his drink was unlawful, his clothing was unlawful, and he is nourished with unlawful things, so how can he be answered?”

(Reported by Imam Muslim).

■5.0 NUTRACEUTICAL: CONCEPTUAL FRAMEWORK

Nutraceutical basically comes under the umbrella of pharmaceutical studies and is a combination of the words “nutrition” and “pharmaceutical”. It is a food or food product that reportedly provides health and medical benefits, including the prevention and treatment of diseases. Such products may range from isolated nutrients, dietary supplements and specific diets to genetically engineered foods, herbal products, and processed foods. The definition of nutraceutical that appears in the latest edition of the *Merriam-Webster Dictionary* is as follows: A food stuff (as a fortified food or a dietary supplement) that provides health benefits. (Merriam-Webster Dictionary, 2005).

Nutraceuticals is term coined in 1979 by Stephen DeFelice (1992) According to Defelice, it is defined “as a food or parts of food, that provide medical or health benefits, including the prevention and treatment of disease.” Subsequently, several other terms (medical food, functional food and nutritional supplements) were used.

Nutraceutical may range from isolated nutrients, dietary supplements and diets to genetically engineered “designer” foods herbal products, and processed products, such as cereals, soups, and beverages. The increasing interest in Nutraceuticals reflects the fact that consumers hear about epidemiological studies indicating that a specific diet or component of diet is associated with a lower risk for a certain disease. (Hans K. Biesalski, 1992) University of Hohenheim, Stuttgart, Germany.

Nutraceutical and the Prophetic Medicine

The prophet s.a.w used to drink some honey mixed with water on an empty stomach. There is a wonderful secret behind this practice regarding preserving the health. Only those whom enjoy sound comprehension will be able to recognize such a secret. (Ibnu Qayyim, 2003)

Black seeds were regarded as a medicine for that cures all types of diseases. The Prophet once stated, *"The black seed can heal every disease, except death"*.

Dates are mentioned in twenty places in the Quran. Prophet (PBUH) is reported to have said: *"if anyone of you is fasting, let him break his fast with dates. In case he does not have them, then with water. Verily water is a purifier"*.

As stated above, Avicenna had described four approaches to treat cancer, he had also mentioned that:

"It (cancer) can be reached by controlling the material (atrabile), improving the diet and reinforcing the involved organ by the known effective medicines, and by using mineral smears like those containing millstone dust and whet-stone dust and from smears taken from a mixture between the stone poulder for aromatics and black head stone moisturized with rose oil and coriander water poured on poulder. And also a dressing with well pounded verjuice is good and useful".

The Prophet s.a.w said:

"When Allah loves a slave, He helps him observe a diet from the life of this world, just as one puts his patient on a diet from food and drink. Allah puts His believing slave on a diet from the life of the world."

The famous statement that “diet is the top medicine; and the stomach is the home of disease; give each person what he is used to (of food and medicine),” This is not a hadis, according to the scholars of hadis. Rather, it is the words of Harith bin Kaladah, the renowned Arab doctor. (Ibnu Qayyim, 2nd Ed. 2003).

Al-Harith stated that “Diet is the head of medicine”. To doctors, observing a diet by healthy people is as harmful as unhealthy eating habits for patients. Consequently, the best type of diet is that observed by those recovering from an illness, because until then, their body organs would not have regained their normal strength and wellbeing. In this condition, the digestion process would not be at its normal efficiency while the various organs of the body would be still be prone to sickness. At this time unhealthy eating habits might cause the disease to come back stronger than it was before. (Ibnu Qayyim, 2nd Ed. 2003).

Nutraceutical and Black Seeds (*Nigella Sativa*)

Nigella sativa is one the most revered medicinal seeds in history. In civilizations around the world, herbal spice *Nigella Sativa* referred to as Habbat-el-barakah (literally seeds of blessing in Arabic), Kalonji (Hindi), Kezah (Hebrew), Sijah Daneh (Persian) and in English called Black Caraway. The famous Greek physician Dioscorides (40-90 AC) used black cumin seeds to treat headaches and toothaches. *Nigella sativa* seeds and oil extracts has been used widely for centuries to treat interruptions in the respiratory system, stomach, kidney and liver function, circulatory, the immune system as well as cancer. In Islam, it is regarded as one of the greatest forms of healing medicine available (Zohary D, Hopf M., 3rd Ed. Oxford University Press, 2007).

The prophet Mohammad (PBUH) stated, *"The black seed can heal every disease, except death"*. Avicenna refers to black seed in his *Canon of Medicine*, as the seed that stimulates the body's energy and helps recovery from fatigue and dispiritedness. In the Unani Tibb system of medicine, seeds are regarded as a valuable remedy for a number of diseases. The seed's oil has been used to treat skin conditions such as eczema and boils and to treat cold symptoms. The modern research confers that *Nigella sativa* seeds ethanol extract possess antitumor activity in mice tumor primary cells *Nigella sativa* seeds extracts contains amino acids, proteins, carbohydrates, alkaloids, saponins, fixed and volatile oils, and many others. (The Open Nutraceutical Journal, 2010).

■6.0 MARKETING POTENTIALITY OF NUTRACEUTICAL PRODUCT

A new market report from Transparency Market Research, Albany, NY, has found that the global nutraceutical product market reached \$142.1 billion in 2011 and is expected to reach \$204.8 billion by 2017, growing at a CAGR of 6.3% from 2012 to 2017. Asia Pacific (including Japan) is expected to have the second largest market share after North America by 2017. The report, “Nutraceuticals Product

Market: Global Market Size, Segment and Country Analysis & Forecasts (2007-2017),” also cited that in 2011, the functional food and beverage market reached USD 93.0 billion, registering a growth rate of 6.0% from 2007 to 2011.

North America enjoyed the highest market share for nutraceutical products at USD 56.4 billion in 2011. According to Transparency Market Research, the global nutraceutical market is growing primarily on account of growth in dietary supplement segment, however functional foods and beverages also make up a significant market segment.

North America has the highest market share for nutraceutical product market, which is primarily supported by the U.S. health conscious consumers segment. The global nutraceutical market is estimated to have a growth rate of 6.6% during the forecasted period (2012-2017) in protein and peptides segment of dietary supplement market. The non-herbal segment of dietary supplement market will have a growth rate of 6.3% from 2012 to 2017. The omega fatty acid fortified food segment of functional food market will have a growth rate of 6.7% during the forecasted period. The North America and Asia Pacific nutraceutical market is expected to have a market share of 39.2% and 30.4% respectively in 2017. The dietary supplement market will be the fastest growing market from 2012 to 2017 as it helps in improving the body ability to heal and protect itself. This report categorizes the nutraceutical market into six geographic regions namely: North America, Western Europe, Eastern Europe, Asia -Pacific Latin America and Middle East & Africa.

Gelatin in Halal Nutraceutical and Pharmaceutical Production

Gelatin is used in many food products, including jellies, ice cream, confectionery, cookies, and cakes. It is also used in non-food products, including medical products, and in veterinary applications. Gelatin can be from halal or haram sources. Common sources of gelatin are pigskin, cattle hides, cattle bones, and less frequently, fish skins and poultry skins.

In general, a product label does not indicate the source of the gelatine (Chaudry, 1994), so halal consumers normally avoid products containing gelatin unless they are certified halal. As Muslim countries have increased imports of food products, there has been growing awareness of the problem gelatin presents to Muslim consumers. Malaysia, Indonesia, and several other Muslim countries now require that imported as well domestic products containing gelatin be produced with halal gelatin. Several gelatine manufacturers in Europe, India, and Pakistan produce halal gelatin. Where halal gelatine is not available, food manufacturers can use some of the vegetable substitutes for gelatine. These vegetable-origin substitutes perform the same function as gelatine. However, currently gelatine is the only material that melts below body temperature and is reversible- that is it can be melted and gelled more than once. (Mian N. Riaz and Muhammad M. Chaudry, 2004).

Gelatin is commercially produced protein stemmed from collagen which is usually derived from animal skin and bones, with the predominantly utilizing porcine skin. Its rigid and hardy qualities meet the pharmaceutical standards required for using it as capsule outer coating for certain drugs. While structurally strong, it readily dissolves in stomach conditions hence the contained drug can be absorbed adequately after digestion. Traces of gelatine production stem as far back as 4000 BC and its history elucidated respectively by Boque in 1922, Smith in 1929 and subsequently Koepff in 1985. Back in the early history of gelatine, animal hide was cooked and boiled to produce animal glue and thus the extraction of crude gelatine. (Zhari Ismail, 2011).

Alternatives: Gelatin may be obtained from bovine and ovine hides and bones from collagen of fish and poultry. Gelatin is used as a haemostatic. It is also used as pharmaceutical aid (suspending agent, encapsulating agent, tablet binder, tablet and coating agent). It can also be used for many other purposes, adhesives, cements, matches, and as a clarifying agent, amongst others. (Zhari Ismail, 2011).

Islamic Points of View on Gelatin

Gelatin is an animal by-product, the partially hydrolyzed collagen tissue of various animal parts. Its halal status depends on the nature of raw materials used in its manufacture. Most gelatine is one of two types: (1) Type A gelatin is exclusively made from pork skins, and is hence haram for Muslims to use. (2) Type B gelatin is made either from cattle and calf skins or from demineralized cattle bones. Cattle and calf skins used in gelatin manufacture are usually from animals slaughtered by non-Muslims. Whether this type of gelatin is permitted or prohibited for Muslims is controversial. However, gelatin made from bones of duly halal-slaughtered cattle is available. Fish-skin gelatin is halal as long as it is free from contamination from other sources and is made from a fish species accepted by Muslims who use the product. A food processor understands that a nonspecific gelatin is highly questionable regarding its source, highly suspected of containing pork gelatin, and very strongly discouraged for use by the Muslims (Chaudry, 1994 and Sakr, 1999).

7.0 CONCLUSION

Halal product has assimilated into Muslim life in more than one way – thus making it more comfortable and reachable to most Muslims day by day. However, most Muslims take the halal logo or assurance at face value, meaning as long as a product carries a halal logo and certified by a competence authority Muslims has no qualm about it. Hence, the product’s ingredients need to be inspected and tested for permissibility to meet the halal requirement and standard. Unfortunately, some of the ingredients are unable or difficult to be identified through its source, which can be categorized as *shubhah* or doubtful. These ingredients should be avoided.

In halal products, the scientific processes are needed to monitor the industry as a whole such as in production of the health and pharmaceuticals products without any questionable health and religious implication – this implies that there must be a 100% compliance. By the application of science in Health and Pharmaceuticals products, porcine based can be detected in a source of these two products. Patient might be reluctant to consume a religiously questionable product even at a time when there are no alternative medication to cure their disease or to help them to overcome the illness (Mustafa, R. 2012). This must be solved! Obviously concerning pharmaceuticals porcine-based medicines, some situations warrant an exception due to ‘necessity’ or *dharurah*.

Whether or not one needs a prescription to access them, the issues at hand (for those who are aware and concerned) are how and where they are prepared, the effectiveness of the drug/medicine/supplement, and the compounds / ingredients used. The latter is where the pigs come in. To date, porcine-based ingredients have been widely used in pharmaceutical industry for various reasons. So, one may be

consuming herbal supplements, but if they're in capsules, chances are, the capsules may possibly be made of porcine-based gelatine! (Muhammad,R, 2011)

Viewed in that light, this study hopes to provide Muslims and non-Muslim entrepreneurs the much needed strategies and awareness to create higher consumer confidence that will lead to higher market share and profitability. This will benefit all players that are involved in particular the Muslim consumers.

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