



The Functional Food Industry in Malaysia

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INTRODUCITON

Demand toward functional foods is increasing in line with the changing lifestyle of Malaysians who began to take care of their physical health. Modern lifestyle and rapid growth of the fast food service industry have led the changes in the eating habits of Malaysia's people and indirectly causing changes in health condition and increased chronic diseases such as obesity, heart disease and diabetes (Lau *et al.*, 2012). Recognizing this problem, the government has implemented various policies that strengthen awareness towards healthy lifestyle and preventive measures of chronic diseases. Production of healthy and functional foods begin to grow in line with the demand by consumers. This is influenced by the increase in healthcare awareness among Malaysians as well as the rising costs of medical treatment. As a result, food manufacturers produced new products enriched with compounds functional ingredients like probiotics, fiber, calcium or vitamin E. Among the popular functional products and beverages in the market are cultured milk drinks, Tongkat Ali, ginseng, probiotic yogurt, cereals that are fortified with fiber, and omega 3 eggs.

Generally, there is no universally accepted definition regarding the functional foods (Alzamora *et al.*, 2004; Rezai *et al.*, 2012). Different country looks at functional food differently. The term 'functional food' differs by countries and depends on an organization's perspective (Lau *et al.*, 2012; Rezai *et al.*, 2012). The term 'functional foods' was introduced in Japan, in the mid-1980s. It refers to processed foods containing ingredients that worked for health and the physiological effects on the human body like nervous system, immune system and the body's defense outside the function of nutrients (Shimizu, 2003). It contains bio-active components or enriched with nutrients that are beneficial to health and are able to offer immunity to reduce the risk of chronic diseases (Lau *et al.*, 2012).

Some people argue that functional foods are not in the form of pills or supplements, rather they resemble ordinary foods (fresh or processed food) and used as part of the daily diet (Diplock *et al.*, 1999; Agriculture and Agro-Food Canada, 2014). Among the terms used for functional foods are nutraceuticals, vitafoods, medifoods, dietary supplements and fortified foods. However, some authors considered those terms to have different meanings. For example, Tee (2011) in his study, stated that nutraceuticals or dietary supplements are

unrelated to functional foods due to their bio-active component that had been isolated and presented to users in the form of medications such as capsules and tablets.

Policy of healthy life in Malaysia

Health problems related to lifestyle, diet and environment, such as cardiovascular disease, cancer, diabetes and hypertension are rising in Malaysia. In 2006, the National Health Survey-3 revealed that the prevalence of diabetes and high blood pressure for adults (aged 30 years and above) were 14.6% and 46.2% respectively (Ministry of Health, 2011). The prevalence of smoking among adults is 25.5% while 14.0% are obese while 43.7% are those who were categorized to be physically active. Hence, various activities have been undertaken to raise awareness and change the lifestyle of the people to be more active so that such diseases can be prevented and controlled. Some of the activities recommended are health campaigns, encouragement to eat healthier diets, individual welfare program and motivation towards having harmonious families and communities. Malaysian government also gives emphasis on healthy lifestyle in its development plan. For example, health awareness and healthy lifestyle activities in Malaysian society are among the policies that are addressed in the 10th and 11th Malaysia Plan.

The government also monitors all food and food products imported from foreign countries. Despite of the certification by the respective country's authorities such as Food and Drug Administration (FDA), all imported food and food products must comply with the Malaysian food regulation acts, before they are allowed to cross port of entry. However, globalization and liberalization have opened Malaysian markets to outside food and food products, and illegal imported functional foods which are considered less safe and ineffective. It is also worrying for those locally produced functional foods that are not certified by the Ministry of Health (MOH) but are available in the market. Direct selling outlets throughout the nation are flooded with functional food items since they are distributed under the category of dietary supplements and are not covered by the Malaysian Food and Drug Act 1983 (Arshad, 2002; Rezai *et al.*, 2012). The dosage and food components used are also questionable. The amount and quality of food components may differ, and lack of information would endanger the health of consumers, especially when taken in its original form at high levels of intake by individuals at different ages (Singletary and Morganosky, 2004). Hence, the Malaysia government is strengthening the enforcement and medical legislation to ensure the best and safe quality of healthcare are provided to the citizens. The Health Ministry entrusted the implementation of laws concerning nutraceuticals and functional foods by appointed three agencies such as (Rezai *et al.*, 2012):

- The Department of Food Quality Control, Ministry of Health;
- The Malaysia's National Codex Committee and;
- The National Pharmaceutical Bureau.

In addition, the government also emphasizes on developing high-value downstream activities and provides research funding for the production of health-based foods such as herbs, fruits, vegetables, and edible birds' nests (National Agro-food Policy, 2011-2020). Recognizing the demand for functional foods is increasing, the expansion of the activities of product processing fruits and vegetables has been executed. The development of innovative technologies for extracting bio-active ingredients that involve fermentation, mechanization and immersions were also developed. As Malaysia is rich with biodiversity, herbs have been used as health products, including functional food. This commodity (herbs) has vast opportunities to be developed to a higher level in the value chain, especially in the production of herbal extracts for functional food product development to high-value products. In addition,

research and development (R&D) activities are augmented through a collaborative network of research and higher-education institutions within and outside the country as well as a strategic cooperation relationship with private companies to create technologies and products that meet market needs.

Functional foods in Malaysia and selected countries

In general, functional can be divided into five categories: dairy products; beverages; soft drinks; bakery and snack bars. Several products fall under these categories, such as formula milk, yoghurt, coffee and tea, carbonated and non-carbonated soft drinks, bread and biscuits and breakfast cereals. The global market of functional foods is growing rapidly. The market is driven by ongoing concerns over worldwide obesity level, together with the development of food and beverages offering benefits for healthy life. As a result, many manufacturers offer food that claim to be healthier and safe. The value of functional food market in the world was estimated around US\$54 billion in 2014, increased by 25% from 2013. The primary market for functional foods is dominated by the United States of America, followed by Japan and Germany. Much of this growth is driven by ongoing concern towards healthy life and worldwide obesity levels. Predictors of functional food consumption are related to perceived diet effectiveness of products, and knowledge about nutrition. In the South East Asian region, the functional food market is dominated by Indonesia, followed by the Philippines, Thailand, Malaysia, Vietnam and Singapore (Fig. 1). In 2002, the functional market in Indonesia was approximately equal to Malaysia, but lower than the Philippines and Thailand. However, the functional food market in Indonesia grew rapidly and started to overtake the Philippines and Thailand in 2004, in line with the higher demand from the domestic market. In 2013, the market of functional food in Indonesia reached the higher level of around US\$6.9 billion, as compared to the Phillipines (US\$4.25 billion), Thailand (US\$3.27 billion) and Malaysia (US\$2.205 billion).

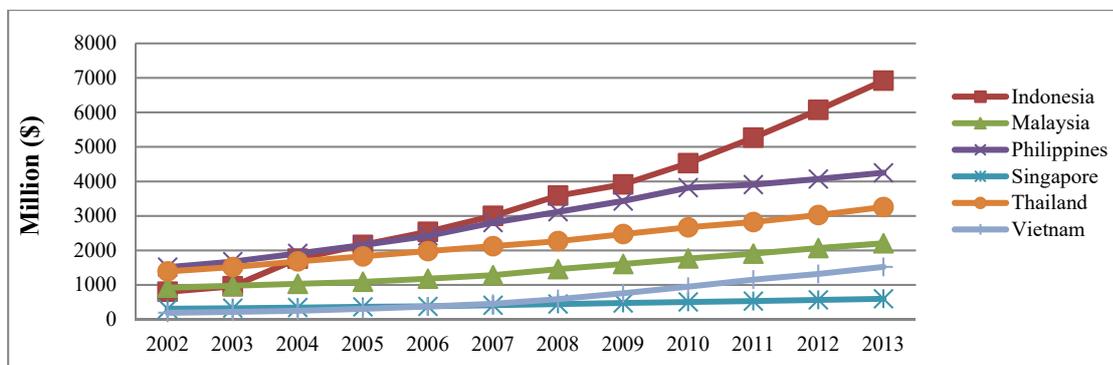


Fig. 1. Market size for products enriched / functional in Asia Pacific, 2002-2013

Source: Euromonitor International, 2014

According to a study by Stanton *et al.* (2011), functional food beverages such as dairy-based drinks and fruit juices have high demand in the Asian markets. The same trend can be seen in the Asia-Pacific region where several other countries such as Indonesia, the Philippines, Thailand, Malaysia, Vietnam and Singapore have a similar composition trend, which is dairy products. They are considered monopolized in the functional food market, especially where market size is concerned. This is followed by functional beverages, soft drinks, biscuits and bakery and lastly snack bars (Euromonitor International, 2014). Despite having the similar

trend, the growth rate is different. This can be seen based on Compound Annual Growth Rate (CAGR) that is used to compare the growth of each category for each country.

Table 1 shows the annual compound growth rate for each category of functional foods. For Indonesia, the snack bars recorded the highest growth rate of 58.56%, followed by bakery (29.29%), soft drinks (15.22%), functional drinks (13.72%) and dairy (13.26%). On the other hand, the highest growth rate of functional foods in the Philippines are those of bread and biscuits (12.1%), while those in Thailand are the snack bars (14.53%) and soft drinks for Malaysia (8.99%).

Table 1. Comparison of compound annual growth rate (CAGR) between Malaysia and selected countries

	Indonesia	Philippines	Thailand	Malaysia
Dairy	13.26%	7.71%	5.89%	3.32%
Functional Beverages	13.72%	8.97%	7.01%	6.67%
Soft Drinks	15.22%	9.55%	6.57%	8.99%
Bakery	29.29%	12.09%	9.37%	3.53%
SnackBars	58.56%	7.71%	14.53%	4.25%

Source: Euromonitor International, 2014

In South East Asia, the market for functional foods is dominated by dairy, followed by functional beverages, soft drink and snack bars (Fig. 2). Consumers from different countries prefer the same category of functional foods. However, the market of dairy products in Indonesia grew more rapidly than that the other Asian Countries. The size of dairy products market in Indonesia is influenced by the size and the growth rate of its population.

In Malaysia, functional food is defined as "a category of food that has health-enhancing properties. They are not drugs, chemicals or vitamins and not prescribed by doctors or other formally qualified medical practitioners (Siti Hasnah and Yanti Ameira, 2010). The increasing market size of functional food in Malaysia clearly describes the higher consumption of healthy foods. The younger generation with better knowledge and education are more receptive to new functional product introductions compared to older generation (Stanton *et al*, 2011). However, in Malaysia, this market segment is fragmented with the non-functional product. Hence, Malaysian consumers are not aware that they are purchasing functional food products (Stanton *et al*, 2011). Therefore, it requires in-depth knowledge and understanding of the target users and their requirements before launching the products into the market. So far, giant food manufacturing companies that are involved in the functional food's production comprise Nestle (M) Berhad, F&N Beverages Sdn. Bhd., Power Root (M) Sdn. Bhd. and GlaxoSmithKline Consumer Healthcare Sdn. Bhd.

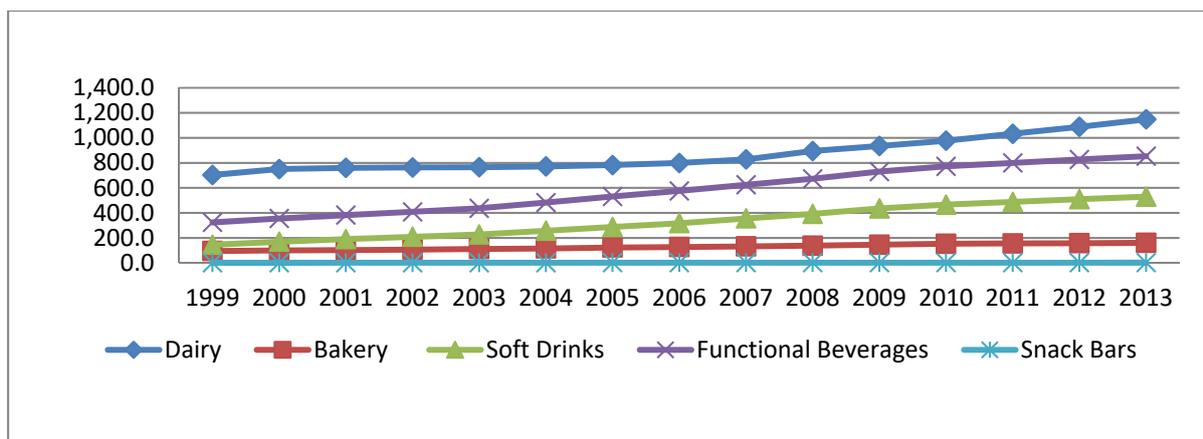


Fig. 2. Market size for products enriched / functional in Malaysia, 2002-2013

CONCLUSION

The healthcare is one of the most dynamic and fastest growing industries in the world economy. However, the growth of the healthcare industry in Malaysia is only sustainable and is much moved by the use of healthcare products by the domestic sector (Ministry of Health, 2011). Functional foods are one of the health sectors that have the potential to be developed and contribute to Malaysia's economic growth. The development of this industry is capable to generate sustainable economic growth and at the same time, can indirectly provide significant social impact.

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