



**UNIVERSITI PUTRA MALAYSIA**

***EFFECT OF CONSUMERS' AWARENESS ABOUT COUNTRY OF ORIGIN  
ON PURCHASING DECISION IN KLANG VALLEY, MALAYSIA***

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**EFFECT OF CONSUMERS' AWARENESS ABOUT COUNTRY OF ORIGIN ON PURCHASING  
DECISION IN KLANG VALLEY, MALAYSIA**

By

**NASIM TAHERI**

**Thesis Submitted to School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of  
the Requirements for the Degree of Master of Science**

**February 2015**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

**EFFECT OF CONSUMERS' AWARENESS ABOUT COUNTRY OF ORIGIN ON PURCHASING DECISION IN KLANG VALLEY, MALAYSIA**

By

**NASIM TAHERI**

**February 2015**

**Chairman: Noliila Mohd Nawi, PhD**  
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Globalization has become vital in today's competitive market place with firms often outsourcing various parts of their production and operation to different countries in search of the lowest possible cost and expertise. The development of the concept of the country of origin (COO) of a product dates back to World War I. It stresses the point that the COO effects could be enhanced by variables like the existence of representative products, an intervening factor as consumers look for the "made in" labelling of a product. Previous researches suggested that, the COO besides brand, price and quality of the specific product may influence customer perception in the decision making process of purchasing a product. This research focused on agricultural food products specifically dairy products in Malaysia. Food consumption pattern in Malaysia appears to be evolving in similar pattern to other emerging Asian economies, most notably Thailand, China and the Republic of Korea. Per capita consumption of livestock products in Malaysia, including dairy, is substantially below that of the Organization for Economic Cooperation and Development (OECD) countries such as the United States, Australia and Japan. Yet, compared to Thailand, China and the Republic of Korea, per capita consumption of livestock products is relatively high. Thus, the aim of this research is to explore the effect of country of origin (COO) on consumers' awareness in Malaysia, among dairy consumers.

This study was conducted in Klang Valley with a total of 1108 respondents that were selected via simple random sampling method. The primary data was collected using structured questionnaire via face to face interview. The accumulated information was examined with care to double check the accuracy using SPSS. The data collected was analysed using descriptive analysis, cross-tabulation analysis, factor analysis and multiple regression analysis. Cross-tabulation technique using chi-square analysis was applied to determine the relationship between socio-demographic factors and awareness towards COO. Next, factor analysis was used to explore determinant factors influencing Malaysians' purchasing decision toward dairy product based on COO. After the value obtained from intervening variables, the researcher shall chart the factors that has the greatest impact. Multiple regression analysis was applied to determine the relationship between socio-demographic factors, extracted factors and consumers' awareness toward COO.

The findings on cross tabulation showed that consumer's age, religion and education have significant relationship with their awareness toward COO, while there are no significant relationship between gender, race, employment and income of respondents and awareness of consumers towards COO. The result of factor analysis identified six factors namely Halal logo, product's label, brand, quality, price, and country image as the factors influencing consumer's awareness towards COO. Further analysis conducted using multiple regression to determine strength of the extracted factors, socio-demographic characteristics of consumers' and their awareness toward COO.

Result of multiple regression analysis revealed that education among the socio-demographic factors has significant effect on consumers' awareness toward COO. Besides, brand and price have negative relationship with consumers' awareness toward COO. Meanwhile the relationship between Halal logo, product's label, quality and country image factors and consumers' awareness toward COO are positive.

In conclusion, most important factors that shape Malaysians' purchasing decision based on COO are Halal logo, product's label, brand, quality, price, and country image. It was found out that Halal logo and brand are two factors that Malaysian consumers consider the most compared to the other factors. The result of this study could provide an opportunity for Malaysians' dairy market players or related agencies to strategizing and plan of increasing self-efficiency rate. Furthermore by recognizing the factors and purchasing behaviour of Malaysian consumers toward dairy products can be useful for dairy producers in Malaysia in identifying target market.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan Ijazah Master Sains

## **KESAN KESEDARAN PENGGUNA MENGENAI KONSEP NEGARA ASAL (COO) DALAM MEMBUAT KEPUTUSAN PEMBELIAN DI LEMBAH KLANG, MALAYSIA**

Oleh

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Era globalisasi menjadikan pasaran hari ini lebih kompetitif dan syarikat-syarikat mula mencari sumber dari pelbagai Negara untuk mendapatkan kepakaran dan harga kos yang paling rendah. Pembangunan konsep negara asal (COO) bagi produk telah bermula sejak Perang Dunia Pertama. Kesan konsep Negara asal menekankan bahawa ianya boleh dipertingkatkan dengan pembolehubah seperti wujudnya produk lain sebagai wakil produk bagi Negara tersebut yang menjadi faktor penyebab untuk pengguna mencari label "dibuat di" pada sesuatu produk. Kajian lepas menunjukkan bahawa selain daripada jenama, harga, dan kualiti produk, konsep negara asal (COO) juga boleh mempengaruhi persepsi pengguna dalam pembelian produk. Kajian ini menfokuskan kepada produk pertanian khususnya produk tenusu di Malaysia. Trend pengambilan makanan di Malaysia berubah dalam corak yang sama seperti negara-negara Asia yang membangun terutamanya negara Thailand, China dan Republik Korea. Secara amnya, penggunaan per kapita bagi produk ternakan di Malaysia, termasuk produk tenusu, adalah di bawah paras negara-negara didalam Pertubuhan Kerjasama Ekonomi dan Pembangunan (OECD) seperti Amerika Syarikat, Australia dan Jepun. Namun, berbanding dengan Negara lain seperti Thailand, China dan Republik Korea, penggunaan per kapita bagi produk ternakan di Malaysia adalah agak tinggi. Tujuan utama kajian ini adalah untuk mengetahui kesan konsep Negara asal (COO) pada kesedaran pengguna di Malaysia terutamanya dikalangan pengguna produk tenusu.

Kajian ini dijalankan di kawasan Lembah Klang dengan responden berjumlah sebanyak 1108 yang dipilih melalui teknik persampelan rawak mudah. Data dikumpul menggunakan borang soal selidik secara temuduga secara terus dengan responden. Maklumat terkumpul diperiksa dengan teliti menggunakan perisian SPSS. Data dianalisis menggunakan analisis deskriptif, analisis faktor, analisis penjadualan silang, dan analisis regrasi berganda. Teknik penjadualan silang menggunakan analisis khi-kuasa dua digunakan untuk mengetahui hubungan antara faktor sosial demografik dan kesedaran terhadap konsep Negara asal (COO). Seterusnya, analisis faktor digunakan untuk mengetahui faktor-faktor penentu yang mempengaruhi keputusan membeli pengguna Malaysia terhadap produk tenusu berdasarkan Negara asal (COO).

Hasil kajian analisis penjadualan silang menunjukkan bahawa umur, agama, dan pendidikan pengguna mempunyai hubungan yang signifikan dengan kesedaran pengguna terhadap konsep negara asal (COO), sementara itu tiada hubungan yang signifikan di antara jantina, bangsa, pekerjaan dan pendapatan dengan kesedaran pengguna terhadap konsep negara asal (COO). Keputusan analisis faktor menunjukkan enam factor utama yang mempengaruhi kesedaran pengguna terhadap kesan Negara asal iaitu logo Halal, label produk, jenama, kualiti, harga, dan imej Negara. Analisis selanjutnya menggunakan regrasi berganda untuk menentukan tahap kekuatan factor yang diekstrak, ciri-ciri sosial demografik pengguna dan kesedaran mereka terhadap kesan Negara asal (COO).

Keputusan analisis regresi Wberganda menunjukkan bahawa tahap pengetahuan antara faktor dari sosial demografik yang kesan signifikan kepada kesedaran pengguna terhadap COO. Selain itu, jenama dan harga tidak memberi kesan positif kepada kesedaran pengguna dan kesan Negara asal (COO). Namun, terdapat hubungan positif diantara logo Halal, label produk, quality, dan imej Negara dengan kesedaran pengguna terhadap kesan Negara asal (COO).

Kesimpulannya, faktor utama yang menentukan pembeli di Malaysia berdasarkan konsep Negara asal (COO) adalah logo halal, label produk, jenama, kualiti, harga, dan juga imej sesebuah Negara. Logo Halal dan jenama telah dikenal pasti sebagai dua faktor yang lebih dititik beratkan oleh pengguna Malaysia berbanding faktor lain. Hasil kajian ini boleh memberi peluang kepada pemasar produk tenusu ataupun agensi yang berkaitan untuk mengatur strategi dan membuat perancangan untuk meningkatkan lagi tahap kecekapan diri. Tambahan pula, dengan mengetahui faktor-faktor dan tabiat membeli pengguna di Malaysia terhadap produk tenusu boleh memberi informasi berguna kepada pengeluar produk tenusu di Malaysia untuk mengenal pasti pasaran.



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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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## LIST OF ABBREVIATIONS

COO	Country of Origin
CAGR	Compound Annual Growth Rate
EPU	Economic Planning Unit
EU	European Union
FAO	Food and Agriculture Organization
IBM	Integrated Behavioural Model
JAKIM	Jabatan Kemajuan Islam Malaysia
KMO	Keiser- Meyer- Olkin
MCC	Milk Collection Centre
OCM	Olympic Council of Malaysia
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares
PCA	Principal Component Analysis
SPSS	Statistic Package for Social Science
USDA	The United States Department of Agriculture
WBCSD	World Business Council for Sustainable Development

## CHAPTER 1

### INTRODUCTION

The first chapter of this study discussed the background of the study, the Malaysia's dairy industry and her corresponding issues. The challenges and gaps addressed were discussed in the section for problem statement. The general and specific objectives of the study were also been spelt out in this chapter. This is followed by the significance and organization of the study.

#### 1.1 Background of the Study

Given the increasing availability of foreign imports within the nation's markets, the Country of Origin (COO) has become an increasingly important factor affecting consumers' evaluation of certain products and or services when making their purchasing decisions. In other words, the consumers have begun evaluating foreign products in a totally different light from the domestic ones (Bilkey & Nes, 1982). With the advent of globalization and liberalization, companies nowadays find it much easier to expand their production on an international basis via exports. Such trends have raised consumers' concern about the actual product they select. Thus, the so-called perception of consumers toward certain product(s) in terms of quality and location from which the product is produced determines the ultimate choice of consumers. More importantly, the consumers usually do care about the products' country-related message, which is the "made in" label. The "made in" label is seen as an intangible cue that can influence the consumers' product evaluation process, termed as the COO effect (Brodowsky *et al.*, 2004). Furthermore, COO focuses on the consumer's opinions regarding the relative quality of goods and services based on the country where a particular product originated from (Bilkey & Nes, 1982). As such, international companies are required to understand how local consumers actually evaluate their products as imported goods.

The COO has become a crucial evaluation factor for household consumers' and organizational buyers, which has been widely proven. Among many factors, the effect of COO on consumers' attitude and purchasing behaviour has drawn the attention of many scholars, and has been studied in a wide range of marketing and international business studies (Brodowsky *et al.*, 2004). The perception of consumers with regards to the COO plays an important role towards their choice of a particular product or service, which can be seriously impacted by COO in two different ways. First, there is a possibility that buyers may consider the COO as an important determinant of their choice (Johansson and Thorelli (1985); Hong and Wyer Jr (1989)). Second, the consumers' judgment and evaluation may be affected by the so called "Halo Effect", which is a form of cognitive bias created by the COOs, in an attempt to facilitate better promotion, marketing, and sales of their products and services (Erickson *et al.*, 1984; Han, 1989). As such, it can be noted that the multinational manufacturing and service companies might be affected by the choice of consumers and the geographical locations where they export their products and expand their markets, apart from other factors such as tax incentives, cheap labour costs, and the availability of resources.

There is a large body of empirical studies that have found evidence of significant correlation between the COO effect and consumer's attitudes and purchasing intentions (Tse & Gorn, 1993; Yaprak, 1978). In contrast, there are evidences in some studies of the failure to establish a significant linkage between the COO effect and consumer's evaluations, while the extent to which it affects purchasing decision in real market place remains unclear (Ahmed & d'Astous, 1995; Ettenson *et al.*, 1988; Liefeld (1993); Lim & Darley, 1997). Given the evidence of such mixed results, it seems necessary for the international

marketers to investigate the COO effects on purchasing behaviour of consumers from different countries. Previously, the COO effect was assumed as a factor that helped reduce the impacts of the international trading policy, while in today's challenging market, COO is regarded as a marketing strategy tool used to directly influence consumer behaviour (Tudin & Ying, 2010). Most recent studies were conducted in developed countries, while the evidence of such studies for developing countries like Malaysia is still mixed, or at best, weak. There are, however, a small number of studies being conducted on the COO effects on Malaysian consumers' perception (Osman *et al.* (2000); Sohail, 2005)).

As mentioned earlier, Appendix B compiles the review of COO studies from 1994-2012; most COO studies focused on high-involvement products, such as cars, automobiles, household electronic products, computers, bicycle, furniture and television, and services such as education, MBA level of education, international tertiary education, and other general services. Furthermore, there exist some evidences on the COO effects on low-involvements like the food markets, such as seafood markets (Kleppe *et al.*, 2002; Olsen & Olsson, 2002), wine markets (Bruwer & Buller, 2012; Hu *et al.*, 2008), dairy and agricultural market (Niss, 1996). Based on the study of Niss (1996), dairy consumers' perception and attitude are significantly different among different COO, and specific COOs are unique in the eyes of the consumers.

## 1.2 World Dairy Industry

Dairy farming is an agricultural activity that is related to the production of milk from farm animals. Animal milk production for human use has been established long time ago. The dairy industry is concerned about encompassing businesses, from the farm gate to the food manufacturing section. Most dairy products are derived from dairy cows; however, other sources of dairy animals, including goats, sheep, horses, buffalo, and camels are taken into account as well. According to USDA<sup>1</sup>, 86% of global milk production is from cows. Commonly, dairy products include any food product that includes raw milk, or whose major substance is animal milk. Yet, in terms of perfection, there are a wide range of varying qualities of dairy products throughout the world, ranging from peasant subsistence production, to the commercially based, automated, and integrated corporations.

**Table 1.1 World Dairy Market at a Glance in 2012**

	2010	2011	2012	Relative Change:11/12
million tonnes, liquid milk equivalent		%		
<b>WORD BALANCE</b>				
Total milk production	722.9	737.9	759.6	3
Total trade	47.8	50.5	52.9	4.6
<b>SUPPLY AND DEMAND INDICATORS</b>				
Per capita food consumption:				
Word (kg/year)	104.6	105.6	107.5	1.8
Developed (kg/year)	234.1	234.9	238.1	1.4
Developing (kg/year)	69.4	70.8	72.7	2.8
Trade share of prod. (%)	6.6	6.8	7	1.6

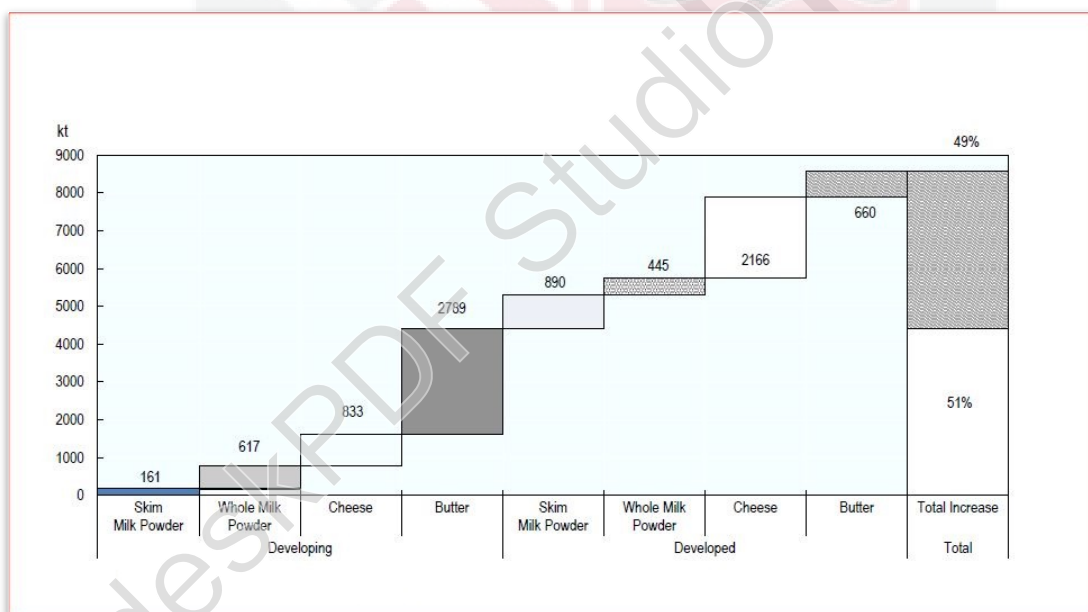
<sup>1</sup>The United States Department of Agriculture

FAO DAIRY PRICE INDEX(2002-2004=100)	2010	2011	2012	Change:2012 over 2011
	200	221	187	-16.6

Source: FAO (2012)

Table 1.1 summarizes the consumption and production rates of dairy product in the world market, as well as their respective growth rates from the year 2010 to 2012. The consumption rates of milk in the developed and developing countries shown are illustrated separately. According to the table, the world milk production rate has grown by 3 % in 2012 compared to 2011.

According to FAO (2013) , the global dairy production will increase by slower rate in the future decade due to increase in the cost of feed, water shortage, and land competition. Developing countries are expected to produce 74% of global milk production over the next decade. Moreover, it is expected that production in India and China alone will increase by 38%. Furthermore, the dairy product consumption is expected to increase at faster rates, and developing countries address their dairy shortage by importing from the United States, the European Union, New Zealand, Argentina and Australia. The consumption of dairy product in developing countries will increase by about 2.2%, and this percent is expected to grow in dairy product supplies as well. Increase in the demand for dairy products reveals the enhancement of income among the population. In contrast, developed countries dairy consumption grows by about 1%, which is less than the growth in production. The following Figure 1.1 displays a graph on production growth by region and dairy products over 2010 to 2012.



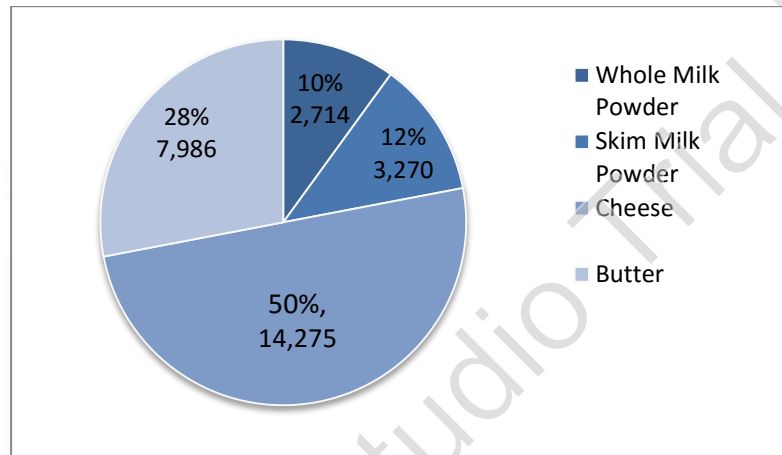
**Figure 1.1: Production Growth by Region and Dairy Products, 2010-2012**

Source: OECD and FAO, 2013

As can be seen in Figure 1.1, the global milk production will increase by 168 million tons between 2012-2022, and developing countries are expected to experience this growth. The slowdown in growth is related to the shortage of water and lack of suitable land in developing countries, and environmental restrictions in developed countries. As shown in Figure 1.1, butter and cheese production in developing and developed countries respectively experienced the largest increase, hence playing an important role in the global dairy production growth.

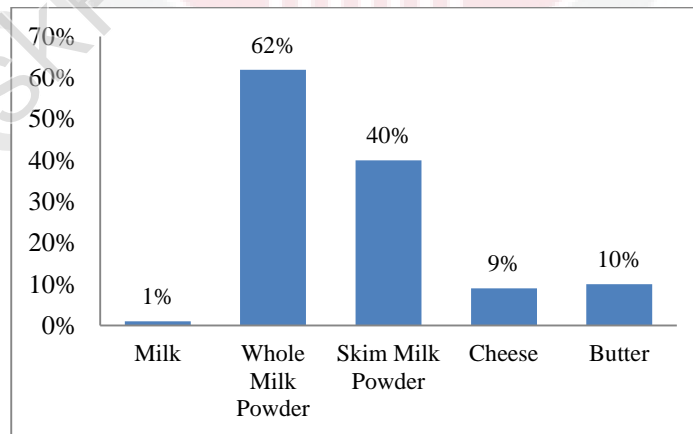
### 1.2.1 Dairy Industry Segmentation

Apart from factors such as size, source, and structure of companies, the initial product any dairy industry would pursue in terms of operation is raw milk, irrespective of size, structure or source. Raw milk can be consumed either on its own, or can be processed into a wide variety of products for public consumption. In particular, raw milk can be processed in a number of different ways, such as heating, separating, or drying. According to the statistics presented in OECD, the consumption rate of fluid milk out of the total production is one third, while the remaining consumptions constitute processed milk. Figure 1.2 displays a chart on global factory milk usage as of 2011. Accordingly, almost half of the dairy product consumption is in the form of cheese, butter consumption rate is almost 30 %, while the remaining amount is attributed to the consumption of skim or whole milk powders.



**Figure 1.2 Global Factory Milk Used by Product (Value in thousand tons) in 2011**  
Source: Author's chart based on OECD stats

According to Figure 1.3, the milk and dairy related exports as of 2011 is 62 % for whole milk powders, and 40 % for skim milk powders. The remaining percentages of export are relatively lower ranging between 1 % of raw milk, to 9 % of cheese and 10 % of butter.



**Figure 1.3 Product Exports as Proportion of Product Consumption, 2011**  
Source: Author's chart based on OECD stats

Table 1.2 reports statistics on key milk producing countries and the value of their production in US dollar. Based on Table 1.2, key milk producers in the world are shown to be the European Union, which is the largest dairy producing region, with an annual milk production of \$164,375 million in 2012, followed by the USA, with annual production of \$104,670 million.

**Table 1.2 Key Milk Producing Countries (USD million)**

	2008	2009	2010	2011	2012
EU	191302	156903	157652	174196	164375
USA	94928	83263	96082	99525	104670
China	27032	30929	35742	42596	49721
Brazil	18433	19060	23597	27120	25238
Japan	20191	22585	23870	25955	26147
Canada	12037	11590	13146	14112	14861
Mexico	12889	11028	12391	13329	12885
Australia & New Zealand	10056	9743	11719	13765	14390
India	7385	8076	9247	10379	9413
Poland	8252	6500	7562	8440	7774
South Korea	5062	4733	5156	5931	6043
Ukraine	3237	2204	2908	3305	3810

Source: (Euromonitor, 2013)

Table 1.3 shows the major exporters of dairy products in the world between 2010-2012. As can be seen in Table 1.3, New Zealand exports a significant portion of whole milk powder and butter to the world. The European Union (EU), which includes 28 countries, exports a considerable portion of skim milk powder and cheese to the world. Similarly, the export quantity of the dairy product world market in 2012 increased by 126 thousand tons compared to 2011 and this trend is seen in all major exporter countries.

**Table 1.3: Major Exporters of Dairy Products in the World**

	2008-2010	2011	2012
Thousand tons			
<b>WHOLE MILK POWDER</b>			
WORLD	2066	2247	2373
New Zealand	791	1110	1210
EU	464	390	360
Argentina	126	201	230
Australia	130	116	117
<b>SKIM MILK POWDER</b>			
World	1330	1713	1733
EU	263	518	520
United States	341	436	450
New Zealand	331	362	363
Australia	142	140	159

## BUTTER

World	841	826	877
New Zealand	396	414	455
EU	149	126	115
Belarus	69	62	64
United States	56	64	60
Australia	63	41	55

## CHEESE

World	2063	2406	2534
EU	603	683	750
Saudi Arabia	200	284	341
New Zealand	267	253	280
United States	139	226	254
Egypt	133	175	130
Australia	160	168	170

Source: FAO (2012)

The history of global trade in dairy related products in the world is mixed, given the distortionary government policies applied by many countries. Many nations were traditionally involved in certain policy implementation, focused on the facilitation of stability in the domestic markets and the protection of local industry against foreign competitors. There were some centralized marketing arrangements associated with such policies, including subsidies for direct production of products, quotas for production and trade, subsidies for exports, tariffs and trade agreements concerning the imports.

### 1.3 Dairy Production and Consumption in Malaysia

A summary of production rates of dairy products in Malaysia is depicted in Table 1.4. According to the table, there have been considerable upward production trends for dairy products over the recent years, where it increased by 13.3% in 2013 from 2012. Earlier, the drinking milk product category reflects a 5% growth in 2012, resulting in the sales of RM2,168 million, while semi-skimmed fresh milk records the highest growth in 2012, with an 8% rise. Moreover, it is predicted that the drinking growth is going to be constant in future (Euromonitor, 2013).

**Table 1.4: Production of Dairy Product in Malaysia (million RM)**

	2008	2009	2010	2011	2012	2013
Production of Dairy Products	5,804.8	5,629.7	6,317.2	6,271.8	7,496.6	8,500.1

Source: Euromonitor International from national statistics/UN/OECD (2013)

Malaysia's dairy market, like many other Asian countries, is expanding as a result of increasing population growth, rapid income growth, and more attention to dietary health (Dong, 2006). Although, there are many factors concerning the relatively higher growth rates in dairy industries in Malaysia.

The number of such industries, along with the beef industry, is very small and limited. This is basically due to the fact that the climatic conditions within Malaysia are not in favour of milk and beef production activities. Furthermore, the availability of farmlands is scarce. Other problems involved in the production capacity of Malaysia can be attributed to the low percentage of herds' size and low population of holders. As such, achieving highly productive gains and economies of scale are rather difficult toward increasing competitive advantage enough to encounter imported dairy products. Thus, it can be stated that Malaysia possesses a very low rate of self-sufficiency in terms of products; such as mutton, beef, and especially milk.

**Table 1.5 Food Self-sufficiency in Malaysia (Per Cent)**

	1995	2000	2005	2010
Rice	76	70	72	90
Fruits	89	94	117	139
Vegetables	72	95	74	108
Fisheries	92	86	91	104
Beef	19	15	23	28
Mutton	6	6	8	10
Poultry	111	113	121	122
Eggs	110	116	113	115
Pork	104	100	107	132
Milk	<b>3</b>	<b>3</b>	<b>5</b>	<b>5</b>

Source: Economic Planning Unit (2010)

With regards to Malaysia's Ninth plan as of the year period 2006 to 2010, the intention of the Malaysian government was basically to increase the volume of production in the agricultural segments to include products such as milk, rice, sheep meat, beef, vegetables, and fruits, with the purpose of enhancing the self-sufficiency levels in the country with regards to these products. Unlike such policy objective, the improvement in self-sufficiency is very unlikely to be achieved over a short and medium term, as there are limited available resources in the agricultural industry, while the worldwide competition with respect to such products is extremely intense. As such, it is expected that Malaysia will remain highly dependent on foreign imports for the procurement of its agricultural products, such as beef, dairy products, sheep meat, and to a lesser extent, rice. The objective of this plan is basically concerned with the provision of (i) commercial farming on a large scale, (ii) improvement of agricultural products' processing, and (iii) implementation of certain biotechnological techniques and principles in production of agricultural products. Furthermore, with regards to livestock production, the plan helps bring about modern system of productions and improvement in animal strength in enhancing the competitiveness of industries within the domestic, as well as international arena (Economic Planning Unit, 2011).

Consistent with the recent improvements in many Asian countries, Malaysia has been imposing certain transformations in its marketing framework for food related materials. Such trends are the results of certain innovations within the country, such as economic growth, globalization, industrialization, and liberalization of trade activities (Arshad *et al.*, 2006). Given such innovations, the demand of consumers in favour of food products with higher quality materials have increased substantially. Accordingly, the products have been differentiated based on their branding and labelling information in an attempt to facilitate higher competition with respect to the quality of their products and to attract more customers (Ishida *et al.*, 2003). Additionally, as consumers become more educated, they tend to be more conscious about health and wellness issues related to food choices and diet (Quah & Tan, 2009). All of these factors are driving shifts in Asian diets away from starch-based staples (e.g. rice), and increasing demand for wheat-based, meat, and dairy products, as well as fruits and vegetables (Prescott *et al.*, 2002).



The consumption pattern of food products in Malaysia has been evolving in a similar manner with those of other emerging and developing Asian countries, such as Korea, China, and Thailand (Warr *et al.*,2008; Ishida *et al.* (2003). The records showed that the consumption rate of livestock, including dairy products on a per capita basis in Malaysia is far below the OECD<sup>2</sup> countries, which includes major developed countries, such as the United States of America, Australia, and Japan. Yet, compared to developing nations such as Thailand, China, and the Republic of Korea, Malaysia's per capita consumption rate of livestock products is higher. Dong (2006) and (Beghin (2006)) estimated that due to the population and income growth of the Malaysian community, such a consumption rate will still grow on a continuous basis for the next ten years.

Based on Figure 1.2 that shows the global factory milk use by product in 2011, some dairy products are widely consumed around the world, and these basic dairy products play important roles in exports in the proportion of product consumption. Prominent dairy products, such as dairy milk, cheese, ice cream, and yoghurt products' consumption and production are discussed in the following subsections:

### 1.3.1 Drinking Milk Products in Malaysia

Since a wide variety of products are available in Malaysia, which contains added protein, newly-introduced healthier drinking milk products helped sustain sales. However, Malaysia has one of the lowest per capita milk consumption rates in the region FAO (2013), and many consumers are largely unaware of the health benefits associated with its consumption. So, the Malaysian government and manufacturers cooperated to enhance milk consumption by organizing events and encouraging the Malaysian population to do so. Moreover, for encouraging adult milk consumption, some marketing strategies were adopted, such as advertising in televisions and magazines, as well as a six-days fair event for motivating children to consume milk (Euromonitor, 2012).

Among the kinds of milk, semi-skimmed fresh/ pasteurized milk experiences the most dynamic growth among Malaysian consumers, mostly driven by their awareness of its benefits. Consumers found milk as a main source of calcium, vitamin, and omega fatty acids, while full fat fresh/ pasteurized milk is recognized to have slightly higher fat content, so consumers consume this milk in moderation. Moreover, the average unit price of milk is going to increase during these years, mostly due to rapid urbanization in Malaysia and the raw material being used in the manufacturing process of milk. The major factors influencing price enhancement are urbanization and the requirement for a convenient packaging of milk. Thus, sophisticated packaging increases the price per unit of milk.

Long-life/UHT milk is a kind of milk available in Malaysia dairy market, although it seems less healthy than fresh/pasteurized milk due to its longer shelf life. Most consumers believe that longer shelf-life milk requires the addition of more preservatives, which makes it unhealthy for consumption. However, consumers' perception towards long-life/UHT milk are gradually changing, especially when the pasteurization process used for this type of milk was disclosed to the public through different mediums, including articles written by milk processing specialists. Consequently, the demand for long-life/UHT milk is experiencing an increase.

Furthermore, international brands and manufacturers dominated different kind of milk in 2012 in Malaysia. The leading international brands, such as Nestle' and Dutch Lady have established their strong positions in Malaysia via their wide comprehensive advertising and strong marketing activities. On the other hand, domestic milk producer such as Yeo Hiap Seng Bhd and Malaysia Milk Sdn Bhd are ranked fourth and fifth in 2012 in Malaysia respectively. Domestic brands are vying to increase their rankings via well thought-out strategies, for example, Malaysia Milk Sdn Bhd launched its Marigold HL Low Fat Milk with Plant Sterols. This brand is the first to apply the benefit of sterols in milk product, though the awareness of Malaysian consumers of the benefits of this plant is limited. Plant sterols lower the cholesterol levels in the blood. Furthermore, international company, such as Dutch Lady Milk Industries Bhd, launched a two-year Sugar Reduction Campaign and reduced sugar usage by 40% in its dairy products in 2013; the aim of this company is in conjunction with the Malaysian

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<sup>2</sup>Organization for Economic Cooperation and Development,2012

government's aim to improve Malaysian's health by reducing sugar in their food intake and promoting healthier lifestyles (Euromonitor, 2014). Based on FAO (2013), Malaysia is ranked eighth in terms of sugar consumption in Asia, on the average, Malaysians consume 26 teaspoon of sugar every day. So, the prevalence of diabetes and obesity is high among Malaysians.

On top of the sugar reduction plan, Dutch Lady came up with its new product with lower sugar content, such as Dutch Lady Kid, Dutch Lady School drinking milk product, and Dutch Lady Low Fat Drinking Yoghurt. In addition, Dutch Lady Milk Industries Bhd applied natural sweeteners instead of sugar to improve the nutritional content of its products, and introduced this healthy portfolio to its consumers. The Malaysians milk consumption is growing, and it is expected to post a Compound Annual Growth Rate (CAGR) of 2% in constant value terms in 2014 (FAO, 2013). Many manufacturers cooperate with the Malaysian government in increasing Malaysians' milk consumption by planning some events and strategies to increase the awareness of consumers to the nutritional components of milk, such as calcium, omega fatty acids, vitamins, and minerals. Among the milk products in Malaysia's dairy market, semi skimmed fresh/ pasteurized milk is currently experiencing the fastest growth, at a CAGR of 4% in 2013 over 2012, and this is reflective of the fact that Malaysians tend to be aware of health and wellness dietary consumption, and several dairy manufacturers are increasing their presence in this category by introducing their new products to expand their market share and promote their product among Malaysians, such as Malaysia Milk Sdn Bhd, with its various Marigold brand extensions (Euromonitor, 2014).

### **1.3.2 Cheese Industry in Malaysia**

The barrier to enter in the cheese industry in Malaysia is low, and this is why many distributors and manufactures are motivated to import a variety of cheese to Malaysia. Since Malaysians are increasingly using cheese for cooking, importers are optimistic of the potential of cheese consumption in Malaysia. Additionally, the increasing number of expatriates and tourists in Malaysia has resulted in encouraging demands toward international foods with cheese ingredients, examples of which are Italian foods, thus expanding the market for various brands of cheese in local foodservice outlets. (Euromonitor, 2014).

In recent years, the growth rate in cheese consumption has been marginally higher. Increasing in growth rate means an increasing number of people who can purchase cheese and afford it, dispelling the belief that cheese is a luxury food. Among the variety kind of cheese, unspreadable processed cheese posted the fastest growth rate (6%) in 2012 (FAO, 2012). Consumers that found the role of cheese as a calcium enhancement drive this growth rate. Moreover, processed cheese slices are introduced to children as a nutritional benefit food. Furthermore, the variety of unspreadable processed cheese, such as cheese slice brands SCS from Auric Pacific (M) Sdn Bhd and Emborg from Emborg Foods Aalborg A/S were introduced to Malaysia as well.

Cream cheese is a popular kind of cheese among Malaysians that dominated spreadable processed cheese, with a 100% value share. Since 2012, many brands of cream cheese have been offered to Malaysia by a variety of differentiation, for instance, Kraft Food (M) Sdn. Bhd market Philadelphia cream cheese, Philadelphia Honey Nut, as well as Philadelphia Salmon Variants. Cheddar cheese, as unprocessed cheese type, is a popular cheese among Malaysians, with a 55% value share. Moreover, Parmesan and mozzarella are ranked as other priorities, which show the popularity of this kind of cheese in pizza and pasta dishes. Other types of cheese, such as Brie and Camembert, account for smaller but significant shares in Malaysian market (Euromonitor, 2014).

### **1.3.3 Ice Cream in Malaysia**

As mention earlier, Malaysians trend to stick to health and wellness diets, and change their lifestyle by consuming nutritional products. Despite this fact, Malaysian consumers are interested in ice-cream consumption, which is a non-health or wellness dairy product. Still, Malaysian consumers prefer sugar-

free or low-fat ice-cream, and found them healthier than traditional ice-cream, however, health and wellness ice-cream are more expensive than regular ice-cream in Malaysia's dairy market, which limits the demand of consumers who are sensitive to price fluctuation. The growth of ice-cream consumption in 2012 was 5% compared to the growth rate in 2011. This growth in ice-cream consumption was driven by the offer of new products, such as single-portion dairy ice cream, multi-pack dairy ice-cream, and bulk dairy ice-cream, and various flavors, such as the Magnum brand from Unilever (M) Holdings Sdn Bhd, which launched its new flavor in 2012, and widened its single-portion dairy ice cream range and Bulk dairy ice cream and multi-pack dairy ice cream both saw the strongest growth rates in 2012, each increasing by 7% in its current value terms (Euromonitor, 2013).

#### **1.3.4 Sour and Yoghurt Product**

Today, sour and yoghurt product play an important role in healthy digestion for Malaysians, and this issue encourage health-conscious consumers to purchase sour and yoghurt products, which increases its sale in the dairy market. In 2012, sour and yoghurt product category experienced a considerable growth of about 11% (FAO, 2012). In this category, domestic and international brands are active, and compete closely together. The variety of yoghurt and sour product is available in the Malaysian dairy market, and foodservice channels, such as frozen yoghurt, fruited yoghurt, drinking yoghurt milk, and kind of sour under different brands, so there are many choices for consumers with different tastes and preferences. For example, a frozen yoghurt specialist, Moo Cow Frozen Yoghurt, has been expanding its outlet numbers aggressively throughout Malaysia. New flavour varieties and options offered by foodservice outlets is also assisting in enhancing consumer awareness of yoghurt.

Due to the hot climate and urbanization in Malaysia, most of yoghurt and sour consumers tend to opt for drinking yoghurt with different flavours. Some flavours, such as strawberry, berries, mango, and peach are the most popular flavours among Malaysian consumers. Drinking yoghurt and sour products are poised for highest growth of about 11% in 2012. Moreover, the price of yoghurt and sour product due to milk price fluctuation is increasing annually (Euromonitor, 2013). Nestlé as an international brand, attempts to increase its market share in this category, and offer the drinking yoghurt product at a low price. In the face of this competition, Malaysia Milk Sdn Bhd launched a strong campaign for its Marigold brand, with emphasis on supermarkets and hypermarkets in order to raise consumer awareness. Among available yoghurt and sour products brand in dairy market, Malaysia Milk Sdn Bhd led this category of products in 2011, with a 36% value share after that of Yakult (M) Sdn Bhd, who participated in market by 26% of the market share in 2012. In 2011 and 2012, there were no new products in this category, but existing brands introduced the available products via new design and packaging, as well as new value-added flavors. During these years, Dutch Lady Milk Industries Bhd launched its 0% fat regular drinking yoghurt product, which includes 25% sugar reduction as part of Sugar Reduction Campaign in 2011. Moreover, Malaysia Milk Sdn Bhd introduced its new packaging for regular drinking yoghurt to offer health and wellness product for health-conscious consumers (Euromonitor, 2014).

#### **1.4 Issues in Malaysia Dairy Markets**

Malaysian's diet is similar to other Asian diets; relatively low in meat and dairy, while plant and fish based foods are the core of her daily food intake (FAO, 2013). Besides dietary habit, lactose intolerance discourages many Asians from consuming milk. In order to address this problem and change Malaysians' habit in dairy consumption, the government and major dairy producer implemented many plans to encourage Malaysians to improve their diet with dairy consumption. Dutch Lady Milk Industries Bhd, as a major dairy producer in Malaysia, established an alliance with the Olympic Council of Malaysia (OCM) in April 2012 to reinforce its stand on the importance of nutrition. Dutch Lady supported four athletes at the London 2012 Olympic Games, which included taking the athletes' mothers to London to watch their children compete.

Besides enriching the Malaysian diet with calcium, obesity is also an issue in Malaysia. Statistics indicated that Malaysia is the eighth highest sugar consumer in the world and the fourth highest in Asia; consuming an average of 26 teaspoons of sugar each day. The population is therefore at high risk of obesity and diabetes. Many manufacturers and producers are cooperating to support the Government's aim to promote healthier lifestyles among Malaysians as the company is also committed to help improve the health of its own consumers. In contrast, with this expectation of steady dairy consumption growth in all Asian countries, dairy product suppliers are heterogeneous across Asian countries. In Southeast Asian countries such as Malaysia, dairy productions are constrained by small scale, herd quality, environmental and land constraints, and scarce feed; their dairy productions are expected to grow significantly with government support, technology improvement, and demand stimulation. Southeast Asian countries do not produce enough fresh fluid milk to satisfy their fresh milk needs. Their dairy industry has been plagued with problems in the cattle feeding systems, farm management, herd replacement quality, acquisition and distribution systems, and unfavourable weather. Although, Southeast Asian governments provided some aids such as technical assistance and financial support. These programs did not expand the local dairy industries sufficiently to satisfy domestic demand as these countries are highly reliant on imports.

On the other side, from the country of origin perception and image of country, it is considerable that Malaysian consumers often show some unpredictable purchasing behaviour. Malaysians are proud of exporting their products overseas and they have a common perception that products made in advanced countries such as America, Europe and Australia have higher quality in comparison to domestic brands and locally produced products. Furthermore, there is a misconception that products made in less developed countries have lower quality. Malaysian consumers compare their locally produced products to those produced in the less developed countries thus evaluating Malaysian made products as having higher quality (Garten, 2002).

### **1.5 Problem Statement**

Nowadays, Malaysians are health-conscious consumers who are aware of the benefit of dairy consumption, they know from a biological perspective that dairy products are the most important source of calcium, and it can provide sufficient amount of calcium to the body (Charles, 1992). The consumption rate of Malaysian consumers in favour of dairy products is much higher than those in other Southeast Asian countries. This is basically due to urbanization, and is related to the increased income level of household (Dong, 2005). However, there are still many concerns regarding the lower consumption rate of Malaysians toward dairy products compared to global levels. On the other hand, Malaysia has low self-sufficiency rate in dairy products, so the dairy market has been opened for many countries to export dairy products to Malaysia. Different dairy products with different packaging, size, price, quality, and other characteristics are imported by the Malaysian dairy market every year. So, there is a variety of choice for consumers based on their attitude, interest, and knowledge about specific dairy product(s) from specific individual countries. Previous studies showed consumers with different age, education, race, religion, and income having different knowledge, attitude and behaviour. Obviously, Malaysia, a country that is culturally and religiously diverse will face different attitudes and behaviour. Followers of certain religion(s) are forbidden from consuming certain foods. For example, the Muslims only consume products with Halal logo verifying that the products have been prepared based on Islamic regulations. So, the Muslim consumers look for Halal logos on labels more than the non-Muslim consumers, as the concept of COO is important to them. Thus, most Malaysians are familiar with the COO concept, and deal with it as "made in" on the label of dairy products.

Many countries export their dairy products to Malaysia for many years now. However, in the recent years, manufacturers and wholesalers have been much more concerned about where their target markets would possibly be, considering certain evaluations of significant factors contributing toward consumers' decision-making processes (Hashim, 2008). Given the fact that the Malaysian populations are generally more concerned about health issues and the benefits of food they consume, dairy products play significant role in the Malaysians' routine meal habits, which are not necessarily

relegated to “diet food” status. Instead, it has been positioned for its health benefits. Such a fact implies tremendous potential for future growth of milk and related dairy consumption rate among Malaysians. This study deals with the study of the consumers’ preference for dairy products. The preference of consumers changes from COO to COO depending on the quality, price, brand, taste, Halal certification, safety certification, and the likes.

Based on the study of Garten (2002), Malaysian consumers have some unpredictable purchasing behaviour as they tend to build relationship between quality of product with manufacturer economic status and advancement. On the other side, some researchers showed that country of origin about low involvement product like food product is not a very meaningful concept. The complications involved in identifying factors of purchasing behaviour of consumers are many. Therefore, the interest in knowing the degree at which consumer’s preferences for dairy products varies with gender, age, income or others has induced the selection of this study.

### **1.6 Objectives of the Study**

The general objective of this study was to examine Malaysian consumers’ awareness based on country of origin towards dairy products. The specific objectives of the study were as follows:

- i. To analyse the relationship between consumers’ socio-demographic factors and their awareness towards COO of dairy products.
- ii. To identify the factors influencing consumers’ awareness towards COO of dairy products.
- iii. To determine the relationship between extracted factors and socio-demographic characteristics with consumers’ awareness towards COO of dairy products.

### **1.7 Significance of the Study**

According to previous studies and their findings, there are numerous factors that affect Malaysians’ purchasing decision based on COO, such as the Halal logo, country image, brand, quality, and price. This study hope to determine the effect strength of factors on the awareness to COO based on data of survey and priority of factors. Since dairy products are vital for everyone, many companies in the market are willing to capture markets with modern approach using the latest technology. Dairy products differ by price, quality, packaging, size and so on, so it is necessary to know the customers’ intention. This study is undertaken with a view to find the factors influencing the purchasing pattern towards dairy products based on COO among Malaysians. The findings of this study can help develop the marketing activities associated with dairy products in Malaysia. Thus facilitates developing better strategic plans and policies towards the expansionary and developmental plans for the domestic dairy industry of Malaysia. More so, the outcome of the study will be of immense value to foreign multinationals in marketing their products to the Malaysian market.

### **1.8 Organization of the Study**

The thesis is divided into five chapters. Chapter one shows the background information and image of dairy industry, discussions on challenges and gaps in the Malaysia’s dairy industry as problem statement. Chapter two illustrates previous studies related to influence of country of origin on purchasing decisions. Chapter three determines the methods and analysis that was applied to the study, choice of suitable conceptual framework that shows relationship between dependent and independents variables. Chapter four discusses the analysis of the raw data and the results of the study, while Chapter five provides summary and conclusions relevant to the study.

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