

## CONSUMER BUYING BEHAVIOR TOWARDS HERBAL-BASED PRODUCTS IN MALAYSIA

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### Abstract

Remarkable growth in the use of herbal-based products has recently been noted. In Malaysia, herbal-based product consumption has gained increasing attention by consumers over the past several years. A variety of factors may influence this increasing trend of consumption including changes in lifestyle and belief in natural product. The aim of this paper is to identify the factors influencing the usage of herbal-based products. Data from four hundred and fifty respondents was collected by means of self-administered questionnaire, using the snowballing method. The findings revealed that 57.8% of total subjects have experience in buying herbal-based products. Research indicates that there are significant differences based on gender, education level and age on the use of herbal-based products. Other than the attribute and quality of products, the consumption of herbal-based products are also influenced by both lifestyle and personality of the consumers. With the growing demand of herbal-based product, Malaysians government as well as the industry players has to increase their effort in terms of research and consumer education with respect to herbal-based products. The results of this study will hopefully enlighten the marketers of herbal-based products and help them in devising appropriate marketing strategies in targeting consumers in Malaysia.

Keywords: *herbal-based products; Malaysia; Consumer buying behavior*

### Introduction

The growth of herbal-based product in Malaysian is at a rapid stage. Herbal based products are products such as food, cosmetics, beverages, or personal care that contains herbs as an added value. Based on an interview at the Chemical Engineering Pilot Plant (CEPP), herbs are defined as plants grown and processed for the application in culinary, nutraceutical, cosmeceutical, flavor, and fragrance. Malaysia is one of the centers of biodiversity with an estimated 15,000 known plant species, 3700 are known to be useful, 2000 species with medicinal value and the balance remain largely unexploited [1]. Mainly, they can be found in the wild and only small numbers are being cultivated. Mostly the types of plants that are cultivated in Malaysia are herbs such as tongkat ali (*Eurycoma longifolia*), kacip Fatimah (*Labisa Pumila*), pegaga (*Centella Asiatica*).

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The current estimates for world market of herbal-based product ranges between USD40 to USD100 billion with an average annual growth rate of 15 to 20 percent [2] [3]. On the domestic front, the herbal industry in Malaysia is estimated to grow at the rate of 15 percent per annum, with the market value rising from RM7 billion in 2010 to some RM29 billion in 2020 (Yakcop, April 2011). Due to this, herbal industry has become a strategic investment opportunity, both from economic as well as a social stand-point. Recognizing the need to capitalize on the strength of our biodiversity in health-related natural products, the Malaysian Government is fully committed in making Malaysia as a regional hub for the herbal cluster through greater promotional efforts to local and international herbal and biotechnology industry players (Yakcop, April 2011). In addition, rising consumer awareness on 'green' initiatives and Halal principles have also resulted in the increasing popularity of herbal-based products.

The market nowadays is flooded with many types and brands of herbal-based products. This product can be found in various outlets such as small stalls, restaurants, supermarkets, hypermarkets, and also beauty centers. This shows that herbal-based products can be sold in wide range of Malaysian markets. Thus, in this case, the requirement of competing firm on the knowledge about factors that influencing consumer buying behavior of herbal based product is crucial. The presence of such market environment gives rise to the following research questions: How do Malaysian consumers perceive herbal-based products? What factors influence Malaysians consumers in purchasing herbal-based products? Hence the objectives of the study are to ascertain the relationship between demographic factors and consumers' buying behavior towards herbal-based products, assess the main external factors that influence the purchase of herbal-based products among Malaysian consumers and determine the main internal factors that influence the purchase of herbal-based products among Malaysian consumers.

### **Literature Review**

Herbs are plant, part or extract used for flavor, fragrance or medicinal purpose (Clarkson, 1996). Malaysia is endowed with a tropical rainforest which is rich in medicinal and aromatics plants that can be utilized as medicines, foods, and cosmetics by Malays, Indians, Chinese and aborigine's communities. There are about 1,200 medicinal plants in Malaysia [5]. Most of them are reported of having potential pharmaceutical values and only a small number of these species have been utilized as active ingredients in cosmetics,

fragrances and health care products. All of them showed an increase in the production of local plant-based products by the local industries [6]. Recognizing the importance of herbs or medicinal plants, efforts are now being taken by many agriculture sectors and entrepreneurs to cultivate herbs into their products. The current trend worldwide indicates a preference for natural alternatives to synthetic products. Given the tremendous diversity of plants available in the Malaysian rainforest and the continuous demand for new product with added value, the economical potential for herbal-based product looks very promising.

Consumer behavior is a complex pattern and sophisticated understanding for marketing researches, but simply defined, it is a study of psychological, social and physical actions when people buy, use and dispose product, services, idea and practices (Solomon, 2006; Black et al., 2001; Peter and Olson, 2008). Such activities involve mental and emotional processes, in addition to physical actions. Buying behaviour is the decision processes and acts of people involved in buying and using a product. It is needed to understand why consumer makes the purchases that they make, what factors influence consumer purchases and the changing factors in our society [9].

The three internal factors affecting consumer buying behaviour are demographics and personal choices, consumer attitudes and learning and knowledge. Demographics is especially an interest of marketers as it is important to see how population is changing in numbers, distribution of genders, age, economic situation, birth rate and etc. Family structure, marriage and divorce rates of each country also have effects on consumption habits. Children can also have effects on changing buying decisions of the parents when they shop in a supermarket, therefore advertisements are more relevant to children in some countries with young population (Solomon M. B., 2002). Lifestyle of a person is a further key for buying habits and this attributes is important to be measured to know how consumer spend money, time and in which way a person is showing of own values and choices consumption [7].

Attitude has been defined by Allport (1935) as 'a mental and neutral state of readiness, organized through experiences, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which is related'. Attitude has a significant effect on purchasing of brand and choosing the place for shopping. Moreover, new products in the market or existing product's future demand can be predicted by measuring consumer's attitude. Learning is gained by experience and it is affecting behavior. Companies have to examine consumer's knowledge about a product carefully.

Finding out on consumers shopping habits; from where they buy, how often they purchase, which product groups have importance and how much they are aware of the product or brands help companies to motivate and reinforce consumer's buying behavior.

Culture and subculture, social class and family and group influence are the external factors affecting consumer factors. Culture is one of the main external factors that have big effect on consumer behavior, wishes and ideas. Culture is circulation of the values, norms, and traditions among the society between the generations [11]. Nowadays, a big trend in developed countries is the change of eating habits. Most of the societies start to choose more healthy diets especially with balanced nutritional meals. Consumer's position in a society based on income level, family background, and profession are the indicators of person's social class. The amount of money spent and the way they spent it are both considered in the social class. The people in the common groups seemed to have similar lifestyle, jobs and tastes and they socialised with each other and affect the behavior of other people in the same social class [10]. A group is cumulative of people that have something common and distinctive relation between each other. The most common and natural group in the society is family that mostly act together with certain aims. Family members have different roles like initiator, decider, influencer, buyer and user. The impact of family members on different assortments of products are changing depending on family size, structure and hierarchy in buying decision process. The group of people can be formed by sharing the same profession, belief and hobbies [12].

## **Methodology**

The aim of this study is to determine the factors that influencing consumer buying behavior towards herbal-based product among Malaysian consumers. Given the fact that certain individual factors may affect buying behavior towards herbal-based product, demographic variables such as gender, age, educational level are taken into consideration. Fig. 1 shows the conceptual framework of this study.

The data was collected from major cities in Malaysia, with a sample size of 500 people. For the purpose of this study a quantitative; non-probability snowballing sampling design was used to assess the consumer buying behaviour towards herbal-based products. Although careful consideration was given to collect data, fifty were discarded due to incomplete responses; the final sample was 450 for an effective response rate of 90 percent. The questionnaire was divided in two sections. The first section deals with socio-

demographic background of the respondents and second section cover respondents' consumption and purchasing pattern of herbal-based products. First part in the questionnaire enlists factors such as age, gender, marital status, race, education level and income. The second section measures the reason and factors that influence the purchasing behavior of the consumer.

Descriptive statistics were used to identify socio – demographic characteristics of the respondents. Cross tabulation analysis used to determine the relationship between demographic factors with the consumption of herbal-based product. In addition, factor analysis was used to reduce the data for reason and factors influence the purchasing behavior of herbal-based products.

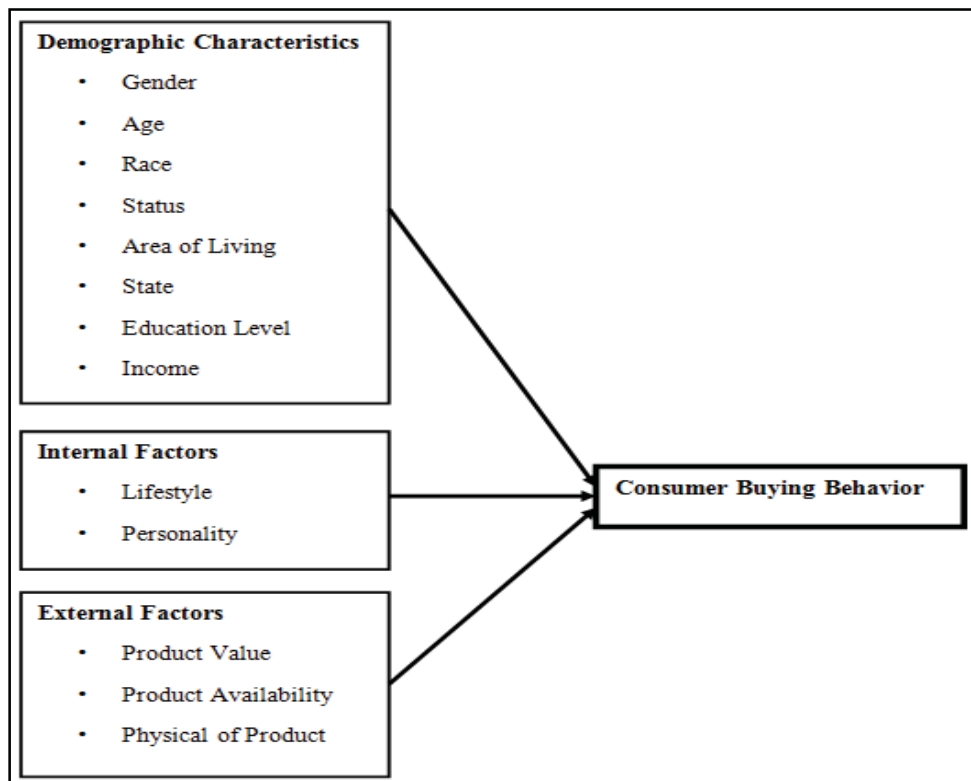


Figure 1: Conceptual Framework

## Result and Discussion

### A. Analysis of Socio-Demographic Background

Table 1 show that the number of male and female respondents was equally distributed. In terms of age, 26.7% of the respondents were below 25 years old, 27.3% between 25 to 34, 16.2% between the age of 35 to 44, 10.2% between 45 to 54 years old, 11.1% between 55 to 64, and 8.4% above 65 years old. Majority of the respondents were

Malay (77.8%) followed by Chinese (11.1%), Indian (9.3%) and others (1.8%). As per marital status of the respondents, 62.4% were married, while the rest were single. 66.2% of the respondents lived in the urban area while 33.8% of them resided in rural area. Many of the respondents came from Selangor which made up of 29.1%. In term of education level, 34.9% of the respondents were diploma holders followed by 32.4% still pursuing undergraduate degree. 12.7% of the respondents have certificate and 8.9% of the respondents held postgraduate degree. Only 8.7% of the respondents had received secondary education while 2.7% of respondents had received only primary education. As per monthly income, 25.8% of the respondents have no official income, since many of the respondents are still studying or have no permanent job. 23.3% of the respondents earned between RM3001 to RM5000, 22.0% earned between RM1001 to RM3000 and 11.1% of the respondents earned less than RM1000. 11.1% of the respondents earned the income in the range of RM5001 to RM7000, 5.8% of respondents earned between RM7001 to RM9000 per month and only 0.9% of the respondents earned more than RM9001 per month.

Table 1. Socio-demographic Background of Respondents

Demographic	Categories	n	Percentage (%)
Gender	Male	225	50.0
	Female	225	50.0
Age	Below 25	120	26.7
	25-34	123	27.3
	35-44	73	16.2
	45-54	46	10.2
	55-64	50	11.1
	65 above	38	8.4
Race	Malay	350	77.8
	Chinese	50	11.1
	Indian	42	9.3
	Others	8	1.8
Status	Single	169	37.6
	Married	281	62.4
Area of Living	Urban	298	66.2
	Rural	152	33.8

Demographic	Categories	n	Percentage (%)
State	Perlis	28	6.2
	Kedah	26	5.8
	Pulau Pinang	16	3.6
	Perak	26	5.8
	Selangor	131	29.1
	Negeri Sembilan	43	9.6
	Melaka	14	3.1
	Johor	12	2.7
	Pahang	10	2.2
	Kelantan	32	7.1
	Terengganu	18	4.0
	Sabah	18	4.0
	Sarawak	8	1.8
	Federal	68	15.1
Education Level	Primary School	12	2.7
	Secondary School	38	8.4
	Certificate	57	12.7
	Diploma	157	34.9
	Undergraduate Degree	146	32.4
	Postgraduate Degree	40	8.9
Income Level	No Official Income	116	25.8
	Less than 1000	50	11.1
	1001-3000	99	22.0
	3001-5000	105	23.3
	5001-7000	50	11.1
	7001-9000	26	5.8
	9001 and above	4	0.9

## B. Analysis of Purchasing Pattern

Figure 2 shows that 47.3% of male respondents used herbal-based products compared to 52.7% of the female respondents. From the total of 260 of the respondents who use herbal-based products, 45% of them have experienced use herbal-based product less than 1 year. This shows that the trend of purchasing herbal-based products is on the rise. 30.4% of buyers said they have used herbal-based products for more than 5 years, 21.5% have used between 1-3 years and 3.1% have used herbal-based product between 3 to 5 years (Figure 3). Nearly 46% of respondents who used herbal-based products spend between RM0 to RM50 per month on the product, 22.1 % said they spent from RM51 to RM100 per month, followed by 13.8% who spent from RM150 to RM200 per month. 8.8% of the buyers indicated that they have spent RM201 to RM 250 per month and only 8.5% of the buyers have spent RM101 to RM150 per month to purchase herbal-based products (Figure 4). Kacip Fatimah is the most popular herbal-based product among the respondents (18.4%), followed by Tongkat Ali (13.2%) and Habatus Sauda (12.8%) (Figure 5).

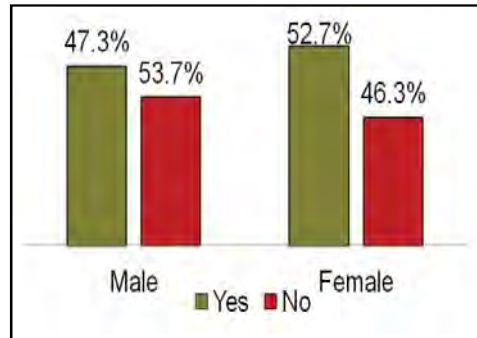


Figure 2: Gender versus purchasing pattern

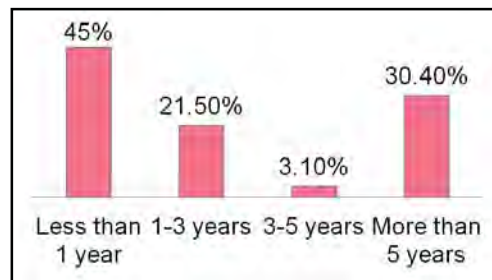


Figure 3: Respondents' consumption period

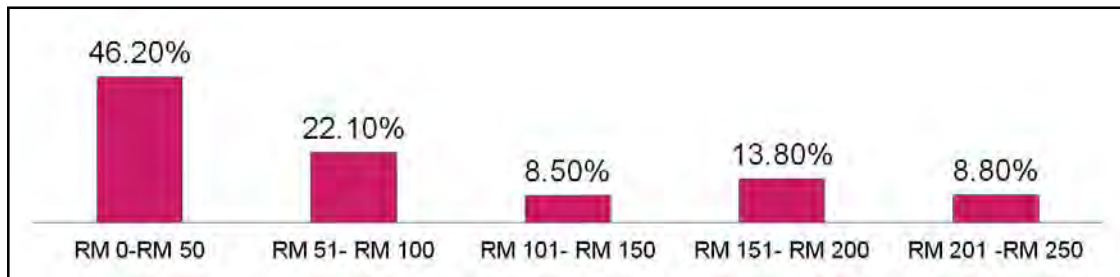


Figure 4: Respondents' money spending pattern for herbal-based product

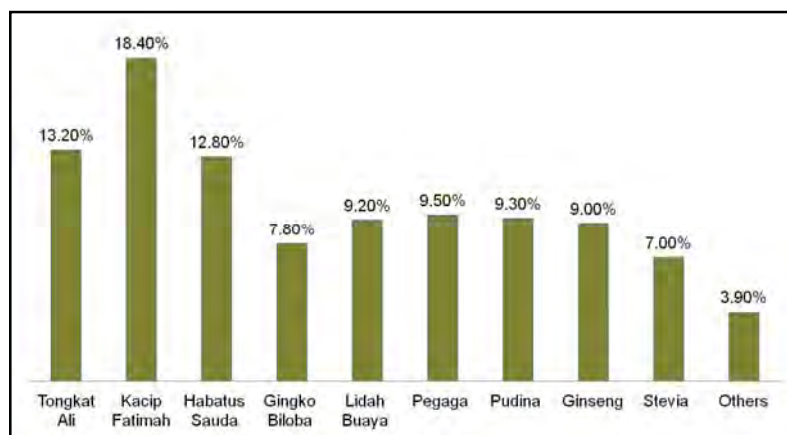


Figure 5: Types of herbal-based products purchased



### C. Analysis of Reason and Factor Influence The Purchasing Pattern

Based on the study, the main internal factor in the purchase of herbal-based products was to enhance existing health/boost energy/wellbeing, followed by to stay healthy and preference of natural products (Table 2). The main external factors that influence the purchasing behavior of herbal-based product were quality/attribute of the product, effectiveness of the ingredient and reasonable price (Table 3).

Table 2. The reason of buying herbal-based product

The Reason of Buying Herbal-Based Product	Mean
To stay healthy	5.9038
To stay attractive	5.3231
To complement medical treatment	5.3192
To enhance existing health/boost energy/wellbeing	5.9077
For anti-aging/ prevailing youth	5.3769
To satisfy my interest and curiosity	4.8154
To compensate for dietary deficiencies/ lifestyle	5.2885
I prefer natural product/ holistic belief	5.5577

Table 3. The factor that influence the purchasing of herbal-based product

The factor that influence on your purchase of herbal-based product	Mean
Price	5.6231
Brand	5.3231
Quality/attribute of the product	6.2423
Effectiveness of the ingredient	6.0462
Promotion and advertising	4.1192
Packaging	3.8692
Store location	4.4808
Taste or flavor	5.1538

Table 4 and 5 show the reason for non-purchasing of herbal-based product, which highlighted the high price of herbal-based products as a deterrence, and their non-purchase is mainly influenced by the consumer's family members.

Table 4. The reasons for the non-purchase of herbal-based product

The reasons for the NON-PURCHASE of herbal-based product	Mean
Expensive	4.9421
Not effective	3.7842
Fear of artificial additives	4.5474
Fear of side effect	4.6421
Bad taste	4.6158

Table 5. The influential person on non-purchasing respondents

The influential person on your non-purchase of herbal-based product	Mean
Spouse	3.8368
Family	4.2053
Friend/colleague	3.7842
Expert (e.g.: medical doctor)	4.0421
Sales representative	3.8842
Presenter/ celebrity endorsement	3.9263
Fitness center/cosmetician	3.6368
Other	3.7316

#### D. Cross Tabulation Analysis

Comparing the socio-demographic background with consumption of herbal-based product, female purchase more than male (Figure 6). When compare with age group, young adults consumed herbal-based products more than elder generations (Figure 7). In addition, comparison between races and types of herbal-based products purchased showed that Malay consumers purchased more as compared to other race groups except for ginkgo biloba and ginseng which is lead by the Chinese (Figure 8).

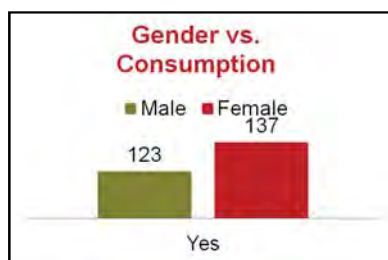


Figure 6: Gender versus consumption of herbal based product

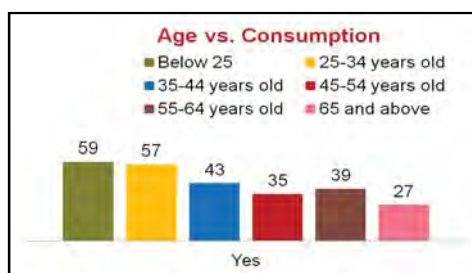


Figure 7. Age versus consumption of herbal based product

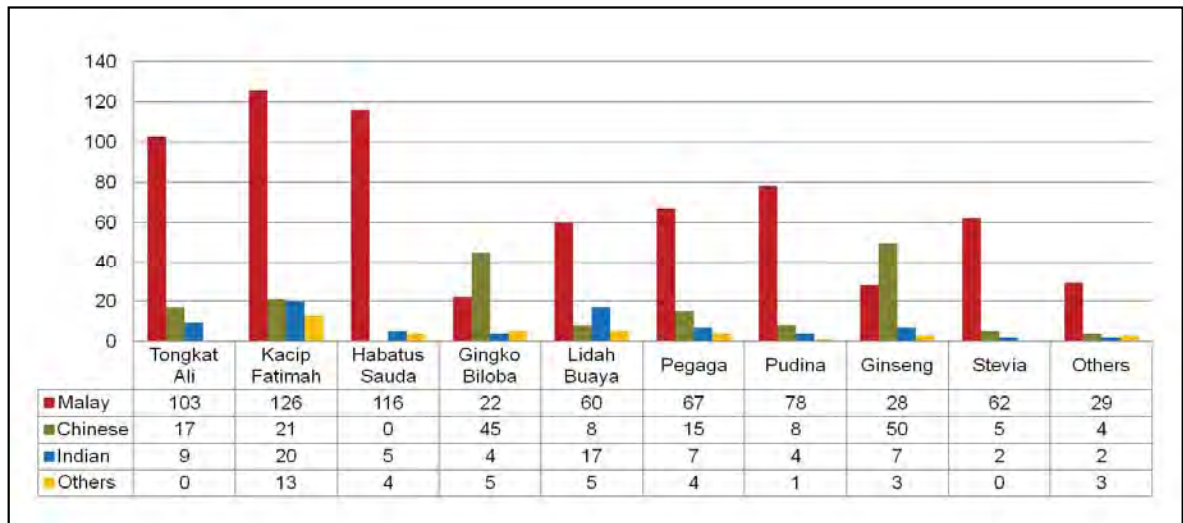


Figure 8: Races versus types of herbal-based product

**E. Factor Analysis**

1) *Internal factor affecting purchase of herbal-based product.* Table 6 shows the two internal factors which affected consumer purchasing behavior of herbal-based products, which are personality and lifestyle, with personality being more influential than life style. Personality consist of 5 sub-variables, namely to enhance existing health/boost energy/ wellbeing, to complement medical treatment, preferring natural product/holistic belief, to stay healthy and to compensate for dietary deficiencies/lifestyle.

Table 6. Internal Factors Affecting Purchase of the Herbal Based Product

Rotated Component Matrix		
	Component	
	1	2
To enhance existing health/ boost energy/ wellbeing	.884	
To complement medical treatment	.757	
I prefer natural product/ holistic belief	.708	
To stay healthy	.700	
To compensate for dietary deficiencies/ lifestyle	.694	
For anti-aging/ prevailing youth		.891
To stay attractive		.675
To satisfy my interest and curiosity		.593

2) *External factor affecting purchase of herbal-based product.* Table 7 shows the three external factors which affected the purchase of herbal-based products, which are product availability, physical product and product value. Among these factors, product availability is the most influential factor affecting the purchasing behavior. This group consists of 3 variables, namely; promotion and advertising, packaging and store location.

Table 7. External Factors Affecting Purchase of the Herbal Based Product

Rotated Component Matrix			
	Component		
	1	2	3
Promotion and advertising	.940		
Packaging	.933		
Store Location	.819		
Brand		.917	
Taste or flavor		.822	
Effectiveness of the ingredient (e.g.: medicinal value)			.797
Quality/attribute of product			.723
Price			.674

## Conclusion

The use of herbal-based product is increasing globally with a demand driven by variety of factors including an ageing population, complement medical treatment, and also the availability of the product. Consumers often face decisions about engaging in healthy lifestyle and the market is flooded with products that are meant to help them achieve that goal. This market includes health and beauty remedies supplements, and also drinks and beverages.

This study data revealed that 57.8% of respondents use or buy herbal-based product. Currently Malaysian consumers are not prepared to spend too much money on herbal-based products. Different herbs are being sought by different races in Malaysia. Products contain Tongkat Ali and Kacip Fatimah is the main types of product that are frequently consumed by the consumers in Malaysia. In addition, the category of herbal-based product that consumers usually consume is drinks and beverages.

In the process of assertion of the relationship between demographic factors and consumption of herbal-based product, the finding shows that age, income, status and state have significant difference with the consumption of herbal-based product. It means the

consumption of herbal-based product is depended on the stratums, such as being older or having higher income or being married. Purchase rate among young adults is increasing, in addition to the older generation.

In the act of determining the factors that influence the buying behavior of the consumer towards herbal-based product; this study suggests that personality of the consumer is the greatest influence in consumption of herbal-based product. Most of the consumer consume herbal-based product due to concern with their health, and prevailing youth. Additionally, the external factors also influenced the consumption of herbal-based product. Most of the consumer agreed that promotion, packaging, and store location influence them most in the purchase of herbal-based product. The main internal factor which influenced consumer's usage of herbal-based product is their lifestyle. High percentage of respondents used herbal-based product to enhance their existing health and wellbeing. Lastly, promotion and advertisement of herbal-based product are considered to be the external factors that influenced consumer's purchase of herbal-based products.

This research had provided some insights on consumer's buying behavior towards herbal-based product in Malaysia context. The result provides a good source of information for the use of marketer and product manufacturer to understand the factors behind the consumption of herbal-based product. However, the findings showed that majority of the respondents choose herbal-based products in the category of drinks and beverages as they consume them most commonly. Further study in this field should consider focusing on herbal-based drinks and beverages as the subject of study, and increase the sample size to assure that future results will better reflect the consumption pattern of consumers in Malaysia.

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