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# Lifestyle Demographic and Food Label Consumption

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## Abstract

The lifestyle aspect can influence people buying intention on food label products and services. This paper is conducted to examine on the lifestyle demographic of consumer that need to be highlighted before consumer come up with the buying decision on food labelling products. Knowing how consumer lifestyle pattern is important in order to gain information on food label products about what they most preferred in purchasing the products or services. Furthermore, this study also helps in fulfilling the national agenda in Malaysia National Agro Food Policies 2011–2020. Hence 200 respondents were given a structured questionnaire to know the lifestyle aspect in consumer behaviour of food label consumption the result of this study shows that attitude and awareness of consumer play a crucial role in deciding the food labelling products that contains nutritious, healthy and most important is halal certificate. The major finding shows there are different awareness and attitude of consumers on food labelling towards buying decision when they are in the different of lifestyle aspect. In addition result also shows that consumers are concern about the quality, safety, and nutritional content of food labelling on food products enable to obtain healthy lifestyles.

**Keywords:** lifestyle, attitude, knowledge and awareness, religious awareness, health consciousness, environmental activist and consumer

## 1. Introduction

The pattern of lifestyle nowadays has reflected on the image of someone or public life. Knowing the personal habits of someone like what individual love or what they do not like will cause someone to have lifestyle based on what they want and need which can give full satisfaction to the users. People currently love own lifestyle to meet the expectation towards products or service rather than copying or followed others lifestyle. This is because individual are already in comfort zone. The consumer behaviour towards food label consumption is one of the lifestyle patterns. Majority of public is concern about food label before deciding to purchase or buy the products and services. Therefore, the lifestyle aspect in consumer behaviour of food label can enhance and influence someone on making buying decision. The awareness and knowledge and attitude might be reflected to the lifestyle aspect. The different lifestyle aspect of consumers means that they are having different awareness and knowledge as well as attitude towards food labelling products. The Food and Drug Administration recognizes the importance of food labelling as a vehicle for dietary messages and, produce guidelines to the users in order to maintain the integrity of the food label. As food labels is one of key element, the upgrading of

food labels is compulsory in making them more effective and easier to understand, the Food and Drug Administration considers what information will be most useful for consumers to make right decision. Harold W. Berkman and Christopher Gilson [1] define lifestyle as 'unified' patterns of behaviour that both determine and are determined by consumption. The term 'unified patterns of behaviour' refers to behaviour in its broadest sense.

## **2. Literature review**

Lifestyle aspect in consumer behaviour of food label consumption in determining and deciding what should buy or what should not buy is very important part because it can generate level of satisfaction if the consumers know what to buy especially by looking and depending on food label. The Marketing Dictionary of Rona Ostrow and Sweetman R. Smith [2] describes lifestyle as 'a distinctive mode of behaviour centred around activities, interests, opinions, attitudes and demographic characteristics distinguishing one segment of a population from another. Lifestyle marketing is a process of establishing relationships between products offered in the market and targeted lifestyle groups [3]. This shows lifestyle aspect can be highlighted as a vital before come up with the purchasing decision. Modern theory gives the definition of lifestyle as a summary construct defined as patterns in which people live and spend time and money [4]. In order to describe lifestyle, it is important to know the demographics characteristics in the market segment. The demographics characteristics that need to be concerned are gender, age, income and occupation. There are three elements of lifestyle that give impact in considering food label which are health consciousness, environmental activist, and religious awareness.

### **2.1 Health consciousness**

People with more available time for grocery shopping have been found to be more likely to be classified as label users. It also appears that consumers who are more concerned about nutrition and health are more likely to use nutritional labels. Consequently, consumers on a special diet, organic buyers, and those aware of the diet-disease relation are more likely to search for on-pack nutrition information than others [5]. The regulatory environment of some countries (e.g. the USA, Australia, etc.) has also recognized the potential of standardized on-pack regarding nutrition information available and has mandated the presence of nutritional labels on all processed food products. This health consciousness will help consumer to choose food that contain nutrition label rather than pick up food or products contain high chemical.

### **2.2 Environmental activist**

Consumers are expected to double their spending on 'green' products, reaching \$500 billion in 2009 [6], and many consumers state that they are willing to pay a price premium for these products [7]. Environment information on food label may represented by a local such as eco-friendly and green food. This environment label also can be recognized by organic ingredients. Consumer who environmental friendly usually intended to purchase products of food that free from preservative ingredients. The quality of environment can be improved when people choose to buy organic food. Environmental information on products can be presented on a continuum that ranges from simple symbols, to colour codes to other labels with basic information and to detailed environmental information about single or multiple product ingredients [8].

### 2.3 Religious awareness

The food label that has halal logo plays important role for consumer especially Muslim. This logo helps consumers to buy food or products confidently. According to Burgmann [9], the halal growth status can be linked to religion and beliefs which means it is cleaner, healthier, and tastier. Sumali [10] stated that manufacturers and producers who manage to obtain the halal products certification by Jabatan Kemajuan Islam Malaysia (JAKIM) are providing the consumers assurance the ingredients that has been use in processing, preparation, hygienic, and cleanliness procedures complying with the halal requirement and are consistent with HACCP and other quality assurance standards. The religious awareness gives a great impact to those who put their religion as first priority especially Muslim consumer. For Muslim consumers, confidence in Halal food relates to the ways of production, processing, and handling food along with safety in terms of wholesomeness [11]. In Malaysia's food industry, food status especially involving Halal status is one of the prime area that has potential to leverage this technology. This is simply because the Malaysian Muslim consumers' are very much concern about the authenticity of Halal food products claimed by food producers [12]. This shows that the religious awareness in food label becomes one of the important aspects in creating consumer buying intention.

These three elements can be link and recognized after knowing the consumers awareness and knowledge as well as attitude towards food label. These elements also represent that the consumers have different awareness and knowledge as well as attitude when they are in different lifestyle aspect which are health consciousness, environmental activist and religious awareness. Attitude can be defined as an individual's overall evaluations of the behaviour as positive or negative [13]. While awareness and knowledge is refer to the knowing that something (such as a situation, condition, or problem), exists feeling, experiencing, or noticing something (such as sound, sensation or emotion), knowing and understanding or having knowledge about what is happening in the world or around community.

### 3. Methodology

The research methods used for this thesis are includes survey questionnaire design, the sample and method of data analysis. The sample for this study is random sampling where 200 respondents were given a structured questionnaire to know the lifestyle aspect in consumer behaviour of food label consumption. The questionnaire of this study is more focus on lifestyle aspect in consumer behaviour of consumption on deciding to purchase the food with labelling or not. By using this questionnaire, the study can know the relationship between the lifestyle aspect with the awareness and attitude that can influence buying decision of food with labelling. The different awareness and knowledge and attitude influence the lifestyle aspect by using the questionnaire. The questionnaire was divided into three sections which include socio-demographic characteristics like gender, residential area, age, marital status, education, occupation, religion, income and lifestyle aspect in Section A. Whereas in Section B focus on awareness and knowledge and the third section is Section C focus on attitude. Both of the Sections B and C were intended to measure the relationship between lifestyle aspect which are health consciousness, environmental activist and religious awareness with the awareness and the attitude towards food label before deciding to purchase the products. These sections also allow the study in knowing the different awareness and attitude bring different lifestyle aspect.

3.1 Method of analysis

The data collected was analysed using SPSS. This study use one-way ANOVA to know about the differences of lifestyle aspects like health consciousness, environmental activist and religious awareness in purchasing products with labelling by using awareness and knowledge as well as attitude of consumers towards food label. Here, the data can show whether there is a relationship between lifestyle aspect with the awareness and knowledge as well as attitude of consumers towards food labelling products. And by having this data, the result obtained can show whether the objective of the study can be achieved or not. Factor analysis is used in collecting data in order to know the total variance explained and Kaiser Meyer Olkin (KMO) to measure the strength of relationship among the variables.

4. Result

Socio demographic information is consists of gender, marital status, education, race, occupation, religion and life style. The socio demographic information is as **Table 1**.

This table indicates the respondents' profile. The highest respondents for this study are female with the percentage of 52%. While for the race, the highest is male which 62.5%. The marital status show married is the highest respondents which contribute the percentage value of 64.5%. The next is education level. There is an equal amount of education level from bachelor and postgraduate which is 28%. The highest type of occupation is come from public sector that is 48.5%. The lowest amount of percentage in term or religion is Hindu which is 6.4%. The lifestyles of the respondents are concerning on religious awareness that can be represented by the percentage of 42% which is the highest percentage from this lifestyles aspect. This socio demographic can help this study to know about the characteristic and profile of the population sample.

The descriptive (**Table 2**) in one-way ANOVA shows the result that provides some very useful descriptive statistics, including the mean, standard deviation and 95% confidence intervals for the dependent variables. The descriptive table shows how many consumers concerns in terms of awareness and knowledge and attitude that can lead to the lifestyle aspect of environmental activist, health consciousness and religious awareness. Each of the questions show those consumers choose depending on their awareness and knowledge and attitude towards their lifestyles aspect.

This below result shows the awareness and knowledge section can influence consumer lifestyle aspect in deciding to purchase products with label. This descriptive table shows the number of consumer which has different awareness and knowledge that influence and lead to the different lifestyle aspect.

**Table 3** shows the results obtained from different attitude of consumer which can influence and lead to the different lifestyle aspect.

This above results shows how important knowledge and awareness and attitude which can link to lifestyle aspect of consumer by using food label in deciding what to buy or purchase.

To know the different exist between awareness and knowledge and attitude towards lifestyle aspect, the F-ratio with an F-profitability values need to less than 0.05. The less of 0.05 results shows the significant value. The ANOVA table can show the output of the ANOVA analysis and whether results have a statistically significant value or not.



Characteristics	Frequency	Percentage (%)
Gender		
Male	96	48.0
Female	104	52.0
Race		
Malay	125	62.5
Indian	21	10.5
Chinese	47	23.5
Missing	7	3.5
Education		
Secondary	34	17
Diploma	54	27
Bachelor	56	28
Postgraduate	56	28
Marital status		
Married	129	64.5
Single	71	35.5
Occupation		
Public sector	97	48.5
Private sector	87	43.5
Self-employed	4	7.0
Retired	2	1.0
Religion		
Islam	133	66.5
Christian	14	7.0
Buddhist	40	20.0
Hindu	13	6.5
Lifestyles		
Physical activity	49	24.5
Environmental activist	15	7.5
Health consciousness	52	26.0
Religious awareness	84	42.0

**Table 1.**  
*Socio-demographic profile of the respondents (n = 200).*

All the results in **Tables 3** and **4** show that there are differences between lifestyles aspect which influenced by the different awareness and knowledge and attitude as the results above state that the awareness and knowledge and attitude have significantly influence the different lifestyle aspect. This is because all the values are less than 0.05 which is ( $p < 0.05$ ).

For the factor analysis, the awareness and knowledge results show minimum adequacy as it is 0.524 which means the amount of it is barely accepted. According to Fen and Sabaruddin [14] and Hair et al. [15], to have a statistical significant of factor analysis, factor loadings must greater than 0.50. There is a relationship between

		N	Mean	Std. deviation	Std. error	95% Confidence interval for mean		Minimum	Maximum
						Lower bound	Upper bound		
PB1	Environmental activist	15	6.20	1.373	0.355	5.44	6.96	4	7
	Health consciousness	52	5.00	1.804	0.250	4.50	5.50	1	7
	Religious awareness	84	6.48	1.275	0.139	6.20	6.75	1	7
	Total	200	5.88	1.621	0.115	5.65	6.11	1	7
CA9	Environmental activist	15	6.27	0.884	0.228	5.78	6.76	5	7
	Health consciousness	52	5.90	1.107	0.154	5.60	6.21	3	7
	Religious awareness	84	6.50	0.736	0.080	6.34	6.66	4	7
	Total	200	6.25	0.965	0.068	6.12	6.38	3	7
Ingredient	Environmental activist	15	3.80	3.098	0.800	2.08	5.52	1	7
	Health consciousness	52	6.42	1.786	0.248	5.93	6.92	1	7
	Religious awareness	84	5.64	2.525	0.276	5.09	6.19	1	7
	Total	200	5.83	2.383	0.169	5.50	6.16	1	7
Nutritional	Environmental activist	15	5.73	2.052	0.530	4.60	6.87	1	7
	Health consciousness	52	6.00	1.597	0.221	5.56	6.44	1	7
	Religious awareness	84	4.98	2.313	0.252	4.47	5.48	1	7
	Total	200	5.35	2.135	0.151	5.05	5.64	1	7
Halal	Environmental activist	15	6.20	2.111	0.545	5.03	7.37	1	7
	Health consciousness	52	4.02	2.697	0.374	3.27	4.77	1	7
	Religious awareness	84	5.29	2.623	0.286	4.72	5.85	1	7
	Total	200	4.91	2.644	0.187	4.54	5.27	1	7
Health	Environmental activist	15	4.27	2.840	0.733	2.69	5.84	1	7
	Health consciousness	52	6.27	1.300	0.180	5.91	6.63	1	7
	Religious awareness	84	5.24	2.171	0.237	4.77	5.71	1	7
	Total	200	5.50	2.059	0.146	5.21	5.79	1	7

		N	Mean	Std. deviation	Std. error	95% Confidence interval for mean		Minimum	Maximum
						Lower bound	Upper bound		
Television	Environmental activist	15	4.73	1.486	0.384	3.91	5.56	1	6
	Health consciousness	52	5.02	1.163	0.161	4.70	5.34	1	7
	Religious awareness	84	4.46	1.571	0.171	4.12	4.81	1	7
	Total	200	4.79	1.427	0.101	4.59	4.99	1	7
Family members	Environmental activist	15	4.73	1.223	0.316	4.06	5.41	2	7
	Health consciousness	52	5.21	1.319	0.183	4.84	5.58	2	7
	Religious awareness	84	4.52	1.668	0.182	4.16	4.89	2	7
	Total	200	4.89	1.514	0.107	4.67	5.10	2	7
Bill board	Environmental activist	15	4.60	1.404	0.363	3.82	5.38	2	7
	Health consciousness	52	3.69	1.766	0.245	3.20	4.18	1	7
	Religious awareness	84	3.57	1.638	0.179	3.22	3.93	1	7
	Total	200	3.91	1.705	0.121	3.67	4.15	1	7
Do you always check halal logo before purchasing food products?	Environmental activist	15	1.27	0.458	0.118	1.01	1.52	1	2
	Health consciousness	52	1.56	0.502	0.070	1.42	1.70	1	2
	Religious awareness	84	1.11	0.311	0.034	1.04	1.17	1	2
	Total	200	1.29	0.455	0.032	1.23	1.35	1	2

**Table 2.**  
*Descriptives.*

lifestyles aspect with them as SPSS shows that the Bartlett test of sphericity is significant when the value is 0. This factor analysis can determine the relationship between lifestyle aspect with the awareness and knowledge. This can be proved in **Table 5**.

But the total variance explained shows the result in vice versa. Total variance explained stated that the higher the percentage of variance a proposed model manages to explain, the more valid the model seems to be. **Table 6** shows the result of total variance explained. The result below come up with the percentage of 29.223 from total variance explained. According to Salman and Siddiqui [16], the factors with the variance explained less than 50% were figured as not significant. Hence, the model is not valid for this study.

However the result from attitude segment shows there is a link and relationship between lifestyles aspect as the Bartlett test of sphericity is significant when



ANOVA						
		Sum of squares	df	Mean square	F	Sig.
PB1	Between groups	73.359	3	24.453	10.656	0.000
	Within groups	449.761	196	2.295		
	Total	523.120	199			
CA9	Between groups	11.700	3	3.900	4.398	0.005
	Within groups	173.800	196	0.887		
	Total	185.500	199			
Ingredient	Between groups	87.842	3	29.281	5.506	0.001
	Within groups	1042.378	196	5.318		
	Total	1130.220	199			
Nutritional	Between groups	37.615	3	12.538	2.826	0.040
	Within groups	869.580	196	4.437		
	Total	907.195	199			
Halal	Between groups	78.712	3	26.237	3.918	0.010
	Within groups	1312.483	196	6.696		
	Total	1391.195	199			
Health	Between groups	59.353	3	19.784	4.942	0.002
	Within groups	784.647	196	4.003		
	Total	844.000	199			
Television	Between groups	17.108	3	5.703	2.880	0.037
	Within groups	388.072	196	1.980		
	Total	405.180	199			
Family members	Between groups	21.837	3	7.279	3.283	0.022
	Within groups	434.518	196	2.217		
	Total	456.355	199			
Bill board	Between groups	36.887	3	12.296	4.451	0.005
	Within groups	541.493	196	2.763		
	Total	578.380	199			

ANOVA						
		Sum of squares	df	Mean square	F	Sig.
Do you always check halal logo before purchasing food products?	Between groups	6.609	3	2.203	12.489	0.000
	Within groups	34.571	196	0.176		
	Total	41.180	199			

**Table 3.**  
*Awareness and knowledge.*

ANOVA						
		Sum of squares	df	Mean square	F	Sig.
Ing2	Between groups	23.304	3	7.768	7.549	0.000
	Within groups	201.691	196	1.029		
	Total	224.995	199			
Ing3	Between groups	20.127	3	6.709	10.354	0.000
	Within groups	126.993	196	0.648		
	Total	147.120	199			
Ing4	Between groups	8.070	3	2.690	3.920	0.010
	Within groups	134.485	196	0.686		
	Total	142.555	199			
Ing7	Between groups	23.561	3	7.854	10.276	0.000
	Within groups	149.794	196	0.764		
	Total	173.355	199			
PB2	Between groups	15.400	3	5.133	3.523	0.016
	Within groups	285.595	196	1.457		
	Total	300.995	199			
The well-known brand of manufactured foods are worthy	Between groups	12.912	3	4.304	2.863	0.038
	Within groups	294.683	196	1.503		
	Total	307.595	199			

**Table 4.**  
*Attitude.*

Kaiser-Meyer-Olkin measure of sampling adequacy		0.524
Bartlett's test of sphericity	Approx. Chi-Square	54.721
	df	10
	Sig.	0.000

Table 5.  
KMO and Bartlett's test.

Factor	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.436	28.727	28.727	0.879	17.576	17.576	0.879	17.576	17.576
2	1.336	26.723	55.450	0.582	11.647	29.223	0.582	11.647	29.223
3	0.887	17.743	73.193						
4	0.738	14.755	87.948						
5	0.603	12.052	100.000						

Extraction method: principal axis factoring.

Table 6.  
Total variance explained.

Kaiser-Meyer-Olkin measure of sampling adequacy		0.848
Bartlett's test of Sphericity	Approx. chi-square	948.520
	df	55
	Sig.	0.000

Table 7.  
KMO and Bartlett's test.

Factor	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.606	41.872	41.872	4.215	38.316	38.316	4.131	37.555	37.555
2	1.540	14.000	55.872	1.081	9.824	48.140	1.007	9.153	46.708
3	1.222	11.107	66.979	0.688	6.255	54.394	0.845	7.686	54.394
4	0.838	7.620	74.599						
5	0.606	5.505	80.104						
6	0.579	5.259	85.363						
7	0.444	4.032	89.395						
8	0.376	3.417	92.812						
9	0.305	2.770	95.583						
10	0.252	2.287	97.870						
11	0.234	2.130	100.000						

Table 8.  
Total variance explained.

the value is 0. This indicates that there is relationship occur between attitude and lifestyles aspect. This can be proved in **Table 7**.

The KMO from attitude results shows an adequacy as it is greater than 0.6. The amount of it is 0.848 and it is acceptable. According to Cerny and Kaiser [17], interpretive adjectives for the KMO measure of sampling adequacy are: marvellous (0.90–1.00), meritorious (0.80–0.90), middling (0.70–0.80), mediocre (0.60–0.70), miserable (0.50–0.59) and unacceptable (0.00–0.49).

**Table 8** explains on the total variance. The total variance explained give the greater value which is more than 50%. This variance of the results is 54.304%. The greater the amount of variance explained the best result will be obtained. The result shows the validity of the model as the percentage of variance a proposed model manages to explain.

## 5. Conclusion

From overall of study, there are three objectives in this study that need to be achieved at the end of study. First objective is to determine intention level of consumers' lifestyles demographics and food label consumption. The factor of awareness, knowledge and attitude shows an impact toward consumers' lifestyles demographics and food label consumption.

Secondly was the relationship between lifestyles with awareness, knowledge and attitude. The finding shows that there is significant relationship between lifestyles with the factors of awareness, knowledge and attitude. This is because the values obtain are less than 0.05 which is ( $p < 0.05$ ).


Finally pertaining to the influential factors that influence the respondents, shows that attitude with the highest variance with 54.304% compare to knowledge and awareness. Hence the attitude behaviour influences toward the lifestyles demographic toward food label consumption. Nevertheless food label can guide consumers on deciding the products to purchase.

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