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FACTORS INFLUENCING FRUITS AND VEGETABLES CONSUMPTION BEHAVIOUR AMONG ADULTS IN MALAYSIA

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ABSTRACT

Numerous studies have been carried out on fruits and vegetables consumption and factors that influenced consumers' fruits and vegetables intake. However, there is limited knowledge on factors that influence fruits and vegetables consumption in Malaysia. Hence, it is important to determine factors that increase the consumption of fruits and vegetables. Therefore, the aims of this research were to evaluate the personal and environmental factors on fruits and vegetables consumption behaviour among adults in Malaysia. Social Cognitive Theory (SCT) supports this study. A total of 1200 respondents were selected in seven cities in Malaysia. Data were analysed by using multiple linear regressions, independent sample t-test and one-way ANOVA to address the research objective. Descriptive analysis was employed to profile the respondents. Based on the findings, attitude (p=.001), habit (p=.002), social influences (p=.001) and availability (p=.001) were found important towards fruits and vegetables consumption behaviour. Females were found to have higher interests than their counterparts in all those factors measured in this study. It indicates that women are more health conscious than men. Age and marital status were significant factors in fruits consumption behaviour whereas age, race, marital status and household income were found to have significant influences in vegetables consumption behaviour. In conclusion, the empirical and theoretical implications of this study can be recommended to marketers and stakeholders.

Keywords: Fruits, vegetables, consumption behaviour, adults, Malaysia

INTRODUCTION

Previous studies have confirmed that consumption of fruits and vegetables contributes to better health and can help to prevent the risks of critical chronic diseases such as heart disease, diabetes, cancer and hypertension (Hu, 2003; Key et al., 2002; Joshipura et al., 1999). These findings help to set the dietary recommendations in many countries. The US

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Dietary Guidelines and the Food Guide Pyramid recommend eating five or more servings of fruits and vegetables per day (USDA, 2010). In Malaysia, the recommended intake of fruits and vegetables is five servings (approximately 400 g) which are two servings for fruits and three servings for vegetables per day (Ministry of Health Malaysia, 2010). In the United Kingdom, only 25 per cent of men and 29 per cent of women adults consumed five or more portions of fruits and vegetables per day (HSCIC, 2009). Data from the US Department of Health and Human Services stated that 32.5 per cent of American adults consumed more than two portions of fruits per day and 26.3 per cent consumed more than three portions of vegetables per day. Overall, the proportion of adults who met the fruit target declined slightly from 34.4 per cent in 2000 to 32.5 per cent in 2009.

However, many developing nations, including Malaysia, fail to increase the fruits and vegetables consumption in their population (Justin, Spencer, Sam, & John, 2009). Results from the Malaysian Adult Nutrition Survey (Norimah et al., 2008), revealed that consumption of fruits is still low among Malaysians and is not included in the top ten daily consumed foods among Malaysian adults. This is a critical issue that needs to be investigated because it will help to prevent undesirable health conditions in the society. Identifying dietary behaviour factors and changes have been identified as a priority area for future behavioural research in dietary changes particularly those that focused on personal factors (e.g. attitude, habit), environmental factors (e.g. social influences, availability), and socio demographic factors related to fruits and vegetables consumption (Joanne, Jessie, & Joseph, 2007; Krebs et al., 1996; van Duyn & Pivonka, 2000). In Malaysia, there is a lack of research on the factors affecting consumption of fruits and vegetables. However, previous researches conducted to measure the socio-demographic factors among Malaysians by Steven, Andrew and Rodolfo (2011) indicates that education, age, ethnicity, income, location of residence, smoking status and health condition were significant predictors of fruits and vegetables consumption. The data were in line with previous findings from the United States Department of Agriculture, that the major factors affecting fruits and vegetables consumption were income, age and education (Lin, 2004). Therefore, in order to identify the factors influencing fruits and vegetables consumption, this research seeks to evaluate the personal and environmental factors among Malaysian adults related to their fruits and vegetables consumption behaviour.

LITERATURE REVIEW

One major goal of health promotion has been created by identifying efficient methods to the advanced lifestyles through behavioural change. In other words, consumer behaviour involves the thoughts and feelings people experience and the actions they perform in the consumption process. It also includes all the things in the environment that influence these thoughts, feelings and actions (Peter & Olson, 2008). In addition, consumer behaviour is a subset of human behaviour.

Several past studies were conducted on adults' consumption of fruits and vegetables (Baker & Wardle, 2003; Lin, 2004; Carljin et al., 2006; Dehghan, Akhtar, & Merchant, 2011; Manuel, Petra, & Ibrahim, 2009; Tamers, Collins, Dodd, & Nebeling, 2009; Vermeir & Verbeke, 2008). Children's eating habits will be continued to adult stage, making the

adulthood stage as the target population to be investigated (Mikkila, Rasanen, Raitakari, Pietinen, & Viikari, 2005). Besides that, adults are highly aware of their consumption choices and are better known as independent customers who know their needs very well (Belk, Bahn, & Mayer, 1982).

Personal and environmental factors are the main attributes to identify the consumption behaviour among consumers. Sallis and Owen (2002) defined environmental factors as all factors external to the individual and this refers to the impact of an individual's external environment, such as family, friends and availability. Personal factors are the internal factors that direct behaviours including personal expectations, beliefs, self-perceptions, goals and intention. In this study, attitude and habit are categorized under personal factors while availability and social influences are categorized under environmental factors. Peter and Olson (2008) summarized attitude as a person's overall evaluation of a concept that evaluations can be created by both the affective and cognitive systems. These responses are generated without conscious, cognitive processing of information about the product. Therefore, through a classical conditioning process, these evaluations may become associated with a product or a brand to create an attitude towards a product. Cox, Anderson, Lean and Mela (1998) reported that attitude is strongly associated with fruits and vegetables consumption.

Habit will be developed when behaviour is being repeated and practised (Bargh, 1994). It comes in a natural way in our life without awareness. Hence, it acts in a specific way under detailed circumstances (Verplanken & Faes, 1999). Furthermore, eating behaviours and habits established during childhood are likely to persist into adulthood.

Kathleen, Connie, Leslie and Frank (2009) found that when more food items are available, the amount of consumption will increase. Availability is a major influence to consumption of fruits and vegetables. Availability of fruits and vegetables at the workplace and canteen plays an important role.

Social influences refer to influences that one or more subjects have on eating behaviours of others. In addition, even when eating alone, food choice is influenced by social influences because attitudes and habits develop throughout contacts with other people (Story, Sztainer, & French, 2002). Research clearly states that a social facilitation leads to lower level food consumption when eating alone and higher level consumption when eating with a group, especially if the group composed of familiar persons (Castro, 2004). Family and friends provide a source of peer pressure for consuming foods and for trying new foods.

Steven and Andrew (2012) have examined the daily consumption of fruits and vegetables in Malaysia focusing on socio-demographic factors by using logistic regression. Their findings stated that working hours, education, age, ethnicity, income, gender, smoking status and location of residence have significant correlations with fruit consumption. However, income, gender, health condition and location of residence were found significant in the consumption of vegetables. These findings were supported by previous studies that show significant differences in socio-demographic attributes towards consumption of fruits and vegetables (Ball, Crawford, & Mishra, 2006; Havas et al., 1998; Subar et al., 1995; Thompson, Margetts, Speller, & McVey, 1999).

METHODOLOGY

This exploratory study by using self-administered questionnaires was distributed in seven selected cities in Malaysia from December 2011 to February 2012. The states were Selangor, Johor, Sabah, Sarawak, Perak, Kedah and Kelantan. All these states were the most populated areas in Malaysia. In each state, the most populated city was selected as the sampling frame of this study. The selected cities were Subang Jaya (Selangor), Johor Bahru (Johor), Kota Kinabalu (Sabah), Kuching (Sarawak), Ipoh (Perak), Alor Star (Kedah), and Kota Bahru (Kelantan). Based on a purposive sampling technique, the most crowded and the most visited shopping centre of each city was chosen. Frank Small & Association found that Malaysian adults (above eighteen years old) spent most of their leisure time in shopping centres or mall (Zafar, Morry & Zainurin, 2007). The study states that a shopping centre is also a community centre for social and recreational activity among Malaysian adults. Therefore, the main reason for choosing the shopping mall was to obtain an adequate number of respondents. An ideal sampling frame for the respondents is a complete listing of all members of the target population but it was impossible to develop a sampling frame since there was no way to know the exact number and personal details of the adults visiting the malls; hence, respondents were chosen by using convenience sampling. Even though this method would hardly lead to representative samples, it may be the best method available due to the unavailability of an accurate sampling frame (Trochim, 2006). Malaysian adults, with age ranging from 19 to 59 years old, were chosen and voluntarily participated in this research to identify the various variables contributing to the consumption of fruits and vegetables.

Data were analysed by using SPSS software (version 19). Multiple linear regressions, independent sample t-test and one-way ANOVA were conducted to answer the objective of this research.

Figure 1 denotes the conceptual framework of this study. The framework was modified from Social Cognitive Theory (SCT) developed by Bandura (1997). This theory explained the reciprocal effects between personal, environmental and behavioural factors or understanding consumer behaviour. The factors measured in this study can be supported by SCT. Thus, the framework of this study is based on this theory and the intention to consume fruits and vegetables was explained by the effects of personal factors (attitude and habit) and environmental factors (social influences and availability).

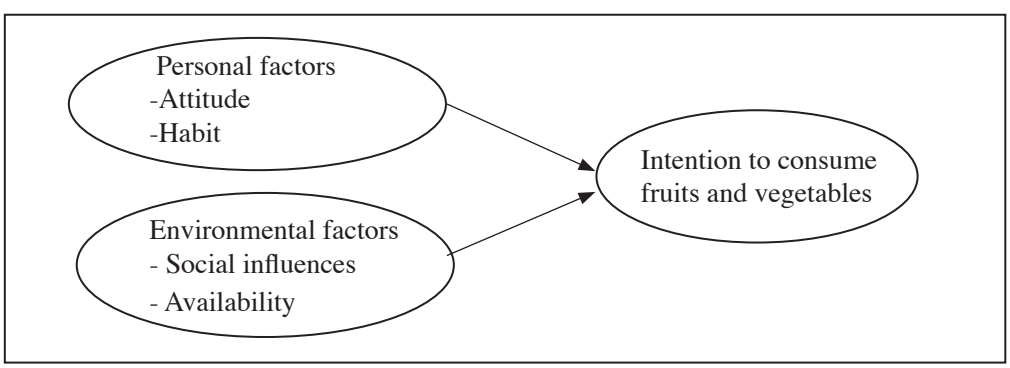

Figure 1: Conceptual Framework of the Study

The questionnaire consisted of four sections. The first section measured the personal factors, which consisted of attitudes and habits, which were measured by 12 items by using a seven point Likert scale (1=strongly disagree to 7=strongly agree). The questions were adopted from previous researches (Ahlstrom, 2009; Engelhaupt, 2006; Lai, 2007; Richards, 2004; Richards, 2007; Stables, 2001). The second section of the questionnaire measured environmental factors, which consisted of availability and social influences, which were measured by six items. The items were adopted from previous studies (Ahlstrom, 2009; Engelhaupt, 2006; Lai, 2007; Richards, 2004; Richards, 2007; Stables, 2001). The third section measured the intention to consume fruits and vegetables (consumption behaviour) as the dependent variable in this study with four items by using a seven point Likert scale. The last part asked about the socio-demographics of respondents. The reliability of the factors measuring fruits and vegetables consumption ranged between 0.700 and 0.784. The higher the score, the more reliable the generated scale is. Nunnally (1978) indicated that 0.7 is the cut-off value to be acceptable in social sciences. Therefore, all variables were reliable and included for further analysis.

RESULTS AND DISCUSSION

The relation of different attributes towards dependent variables (intention to consume) was examined by comparing the magnitude of regression coefficients. Among the total of 1200 collected questionnaires, 151 were excluded from the final analysis because they were not fully completed. As a result, 1049 questionnaires were useable (87.41%) and used for consequent analysis.

The results indicated that the number of female respondents were higher than males. Out of 638 respondents, (60.8%) were female and 408 (38.9%) were male. Most of the respondents were Malays, i.e., totalling 777 (74.1%), followed by other ethnics, 125 (11.9%), while 95 were Chinese (9.1%) and 47 were Indians (4.5%). Since ethnicity was not the major issue in this research, the proportion of respondents based on different ethnicity was not important. From the results, 617 (58.8%) were single, 419 (39.9%) were married and 10 (1%) were divorced. Respondents were asked about their educational backgrounds and the results showed that the percentage of participants with secondary school level (consisting of 35.2% of the total) was higher compared with other educational levels. Besides, most of the participants' household monthly income (i.e., 38.9% of the total) was in the range of RM1001 to RM3000.

Table 1 shows the effects of factors on intention to consume fruits among Malaysian adults.

Table 1: Regression of Factors towards Intention to Consume Fruits

Model	Standardized Coefficient		Unstandardized Coefficient	t	p
	Beta	Std.Error	Beta		
Constant	2.205	0.183		12.041	.001
Attitude	0.192	0.038	0.155	5.034	.001
Habit	0.065	0.029	0.073	2.240	.025
Social influences	0.210	0.023	0.270	9.087	.001
Availability	0.217	0.023	0.272	9.407	.001

F = 39.286 $R^2 = 0.348$
Sig-F 0.001

The R Square (coefficient of determination) was 0.348, which means that 34.8% of the total variance in the dependent variable could be explained by these four items. The F-ratio of 139.286 ($p \leq 0.05$) shows the model was significant. The final regression equation model was measured as follows:

Y = 2.205 + 0.192 Attitude + 0.065 Habit + 0.210 Social Environment
+ 0.217 Availability ... (1)

Where,
Y = Intention to consume fruits
Attitude = Attitude towards eating fruits
Habit = Habit of eating fruits
Social Influence = Influence from social influences while eating fruits
Availability = Availability of fruits at home and nearby areas

The value of Beta in the column determined the relationship between intention to consume fruits and independent variables of this study. The values for attitudes, habits, social influences and availability indicated that there were positive relationships between dependent variables of the study and the independent variables. These values indicate to what extent each independent variable affects the dependent variable. The regression equation for four attributes was significantly related to intention of consuming fruits. Attitudes towards eating fruits ($\beta = 0.155$), habits of eating fruits ($\beta = 0.073$), influences from family members and friends ($\beta = 0.270$) and availability of fruits ($\beta = 0.272$) indicate all these variables had significant effects on intention to consume. Therefore, this study suggests that all these factors had important effects on the intention to consume fruits, and among the variables, availability had the highest effect on fruits consumption.

Table 2 shows the effects of factors on intention to consume vegetables among Malaysian adults.

Table 2: Regression of Factors towards Intention to Consume Vegetables

Model	Standardized Coefficient		Unstandardized Coefficient	t	p
	Beta	Std.Error	Beta		
Constant	1.794	0.162		11.106	.001
Attitude	0.225	0.038	0.190	5.899	.001
Habit	0.095	0.030	0.107	3.139	.002
Social influences	0.206	0.024	0.245	8.411	.001
Availability	0.237	0.024	0.274	9.761	.001

F =180.256 $R^2 = 0.409$

Sig-F 0.001

Table 2 shows the R Square (coefficient of determination) was 0.409, which means 40.9% of the total variance in the dependent variable could be explained by these items. The F-ratio of 180.256 ($p \leq 0.05$) shows that the model was significant. The final regression equation model was measured as follows:

Y = 1.794 + 0.225 Attitude + 0.095 Habit + 0.206 Social Influences
+ 0.237 Availability ... (2)

Where,
Y = Intention to consume vegetables
Attitude =Attitude towards eating vegetables
Habit = Habit for eating vegetables
Social Influences = Influence from social environment on eating vegetables
Availability = Availability of vegetables at home and nearby areas

Attitudes towards eating vegetables ($\beta = 0.190$), habits of eating vegetables ($\beta = 0.107$), influence from family members and friends on eating vegetables ($\beta = 0.245$), availability of vegetables ($\beta = 0.272$) indicate all these variables had significant effects on intention to consume vegetables. Briefly, it can be concluded that attitudes, habits, social influences and availability are effective factors that contribute to fruits and vegetables consumption, and availability had the highest effect. This result is supported by previous studies regarding the importance of availability to increase fruits and vegetables' intake (Corwin, Sargent, Rheaume, & Saunders, 1999; Cullen et al., 2001; Erin, Kobayashi, Dubow, & Wytinck, 2008; Reynolds, Hinton, Shewchuk, & Hickey, 1999).

Availability and easy access to fruits and vegetables significantly give impact on consumption behaviour. Adults are responsible to purchase fruits and vegetables and this leads to higher consumption. The results were also supported by previous findings on the effectiveness of availability (Baker & Wardle, 2003; Smith & Smith, 2008). Duyn

et al. (2001) stated that the effect of social influences for healthy eating (e.g. partner or other members) is a major influence on fruits and vegetables consumption. These direct social interactions can have strong influences on adults' knowledge and feelings on their consumption behaviour. The findings also showed the importance of fruits and vegetables consumption among adults in facilitating their dietary change. When habit is well established, a conscious decision-making process no longer determines the behaviour (Ouelette & Wood, 1998) and psychosocial factors are therefore of less importance, since they are to a large extent already reflected in the habit. Last but not least, attitude produces a significant relationship towards fruits and vegetables consumption behaviour. Cox et al. (1998) reported that attitude is strongly associated with fruits and vegetables consumption. Attitude is the overall evaluation, including feelings, moods and emotions, as immediate direct responses to certain stimuli (Peter & Olson, 2008).

To identify the differences between socio-demographic factors and fruits and vegetables consumption behaviour, one-way analysis of variance (ANOVA) was used to identify if there were any significant differences. The differences in fruits consumption towards demographic attributes were tested to determine whether there was a significant difference ($p < .05$) for each attribute involved. Table 3 shows the results of one-way ANOVA between socio-demographic factors and fruits consumption behaviour among respondents.

It was obvious that significant differences ($p < .05$) were observed in the age group ($p=0.001$) and marital status ($p=0.001$) but not in other attributes. On the other hand, age group ($p=0.001$), ethnicity ($p=0.042$), marital status ($p=0.001$) and household income ($p=0.027$) showed significant differences towards intention to consume vegetables (Table 4). However, it was found that there were no significant differences between respondents with different educational levels and intention to consume fruits and vegetables.

Similar trends of increases in fruits and vegetables consumption in relation to advancing age were observed by Thompson et al. (1999) and Ball et al. (2006). It is known that as one gets older, the health condition of an individual is highly critical and hence they are more concerned of their food consumption. The present study showed that marital status had a significant influence on the consumption of both fruits and vegetables. This finding is consistent with previous work by Friel, Newell and Kelleher (2005) who reported that married couples usually have a greater household income compared to a single person. Interestingly, it was also observed that vegetable consumption differs among various ethnics.

Table 3: Consumption Pattern of Fruits Based on Demographic Profile

Factors	n	Mean	SD	F	p
Age				9.093	0.001
18-26	541	5.8698	1.00561		
27-35	230	6.0055	0.96144		
36-43	97	6.1161	0.9079		
44-51	86	6.2502	0.71324		
51-59	94	6.4176	0.69594		
Ethnicity				1.153	0.327
Malay	777	5.9853	0.9653		
Chinese	95	5.9316	1.00824		
Indian	47	6.0904	0.87914		
Others	125	6.132	0.89102		
Marital Status				17.56	0.001
Single	617	5.8635	1.01915		
Married	419	6.2125	0.79502		
Divorced	10	5.725	1.5521		
Educational Level				2.106	0.062
Primary School	38	6.4475	0.74238		
Secondary School	369	5.9507	0.97058		
Certificate	111	5.9438	1.04484		
Diploma	204	5.9927	0.90187		
Degree	288	6.0495	0.97683		
Postgraduate	36	6.0139	0.7019		
Household Income				1.099	0.349
<RM1000	327	5.9611	0.94653		
RM1001-RM3000	408	5.9756	0.96436		
RM3001-RM5000	205	6.0684	0.93683		
>RM5001	94	6.1197	1.03287		

Table 4: Consumption Pattern of Vegetables Based on Demographic Profile

Factors	n	Mean	SD	F	p
Age				13.451	0.001
18-26	541	5.662	1.15077		
27-35	230	5.9487	0.98155		
36-43	97	6.0552	0.96526		
44-51	86	6.1671	0.83308		
51-59	94	6.3695	0.82355		
Ethnicity				2.739	0.042
Malay	777	5.8208	1.11171		
Chinese	95	5.8577	1.01216		
Indian	47	6.1028	0.90047		
Others	125	6.0000	0.93831		
Marital Status				23.335	0.001
Single	617	5.6834	1.15043		
Married	419	6.137	0.8717		
Divorced	10	5.7000	1.53116		
Educational Level				1.921	0.088
Primary School	38	6.3518	0.83124		
Secondary School	369	5.8412	1.06693		
Certificate	111	5.7712	1.22146		
Diploma	204	5.8399	1.01342		
Degree	288	5.8862	1.11344		
Postgraduate	36	5.9894	0.68036		
Household Income				3.066	0.027
<RM1000	327	5.749	1.12279		
RM1001-RM3000	408	5.8538	1.08682		
RM3001-RM5000	205	6.0059	0.94447		
>RM5001	94	6.0145	1.11742		

The results indicated that Indians were highly motivated to consume vegetables compared with other races and it is probably due to cultural culinary practices and vegetarianism among Indian society (Kittler, Sucher, & Nelms, 2000). In this study, the respondents with household income of more than RM5000 were found to significantly consume more vegetables compared to other respondents in the lower income groups. This finding is expected, as low-income people tend to spend their income on basic needs, not on fruits and vegetables, and it is not considered as an important item to purchase in terms of the benefits. However, in terms of fruit consumption behaviour, no significant differences were found between respondents with different household income. This is due to the fact that fruits can be usually eaten anytime and is not consumed in a particular time while vegetables is part of a typical daily meal (Steven & Andrew, 2012).

Tables 5 and 6 show the differences of gender and intention to consume fruits and vegetables among Malaysian adults by using independent sample t-test.

Table 5: Differences in Fruits Consumption Behaviour between Genders

Factor	n	M	t	p
Attitude			-2.782	.001
Male	408	5.4524		
Female	638	5.5923		
Habits			-2.385	.003
Male	408	5.4382		
Female	638	5.6053		
Social Influence			-3.584	.003
Male	408	5.3440		
Female	638	5.6297		
Availability			-1.259	.239
Male	408	-1.266		
Female	638	-1.259		
Intention to Consume			-2.815	.005
Male	408	5.8990		
Female	638	6.0691		

Table 6: Differences in Vegetables Consumption Behaviour between Genders

Factor	n	M	t	p
Attitude			-2.597	.050
Male	408	5.0623		
Female	638	5.2139		
Habits			-2.150	.001
Male	408	5.0518		
Female	638	5.2199		
Social Influence			-4.330	.001
Male	408	5.1478		
Female	638	5.5065		
Availability			-2.631	.006
Male	408	5.4290		
Female	638	5.6401		
Intention to consume			-2.885	.019
Male	408	5.7440		
Female	638	5.9440		

Table 5 and Table 6 show t-test results that compared the differences between male and female groups with all variables that affect the consumption of fruits and vegetables. It shows that most of the variables were significant between gender groups where the means were higher among the female group. Possibly, it is due to women's higher health consciousness compared with men (Brannon, 2006). The results indicated that there were no significant differences in availability of fruits between genders.

CONCLUSION

The main objective of this study was to identify the effects of personal and environmental factors on intention to consume fruits and vegetables among Malaysian adults. The results present the differences between these factors. It was found that attitude, habit, social influences and availability had significant but low effect on intention to consume fruits and vegetables. These findings were supported by several previous studies (Erin et al., 2008; Cullen et al., 2001; Corwin et al., 1999; Reynolds et al., 1999). Based on the results of this study, environmental factors were more effective than personal factors to influence adults' intention to consume both fruits and vegetables. In terms of environmental factors, availability was found to be more effective than social influences towards fruits and vegetables consumption behaviour among adults. As a result, providing more locations to offer fruits and vegetables will help to increase the amount of consumption among adults. In terms of empirical implications, this study provides ideas to marketers and distributors to focus on the items that have more effects on adults' intention to consume fruits and vegetables in Malaysia. While consumption of fruits and vegetables had positive effects on society's health, the importance of consumption among people cannot be denied. The findings of this research may also shed light on the relation of some factors towards adults' intention and will help marketers and fruits and vegetables providers to determine the target consumers. Besides that, marketers can use the information and ideas from this study to further improve the marketing of fruits and vegetables and also to be more competitive in the markets.

In terms of theoretical implications, the findings of this study could provide foundation for future research in this area. It also can be suggested that this study enriches the body of knowledge of adults' consumption of fruits and vegetables in Malaysia. The important factors that were contributed and measured in this study might be used for other age groups or to develop better understanding on the consumption of fruits and vegetables among Malaysians. Since habit also produces significant effects, marketers or other authorities should educate that the health benefits of fruits and vegetables must start from the young generations. This is supported in previous researches (Verplanken & Faes, 1999) which highlighted that habits from childhood will carry on until adulthood.

There were a few limitations that may affect the current study**.** Firstly, the research instrument of this study was questionnaires. Future researches should refine the instrument in different settings (e.g. interview or focus group discussion) to produce more generalizable data. Secondly, the results confirmed that there were significant differences between personal and environmental factors with intention to consume fruits and vegetables. It is suggested that future studies measure other factors to get more in-depth data about the

behaviour of consumers. Lastly, the data only captures the adults' population regardless of their ethnicities in Malaysia. Future studies should capture the differences in consumption between ethnic groups in Malaysia. Such information would be an important source of information for the industry to better segment the market.

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Appendix

Factors Influencing Fruits and Vegetables Consumption Behaviour Checklist

No.	Variable	Mean (Fruits)	Mean (Vegetables)
1	I like to eat fruits/vegetables	6.41	6.03
2	I like to eat local fruits / vegetables	6.32	6.11
3	I like to eat imported fruits/ vegetables	5.28	4.99
4	I spend more money on local fruits / vegetables	5.50	5.37
5	I spend more money on imported fruits/vegetables	4.64	4.48
6	I like to eat fresh fruits/vegetables	6.52	6.32
7	I like to eat processed fruits/vegetables. (example : dried/pickle and canned fruits/vegetables)	3.65	3.25
8	I like to drink fruit/vegetable juice	5.97	4.71
9	I include fruits/vegetables in my main meal	5.47	5.62
10	I eat fruits/ vegetables as snacks throughout the day	5.30	4.82
11	I eat fruits / vegetables as dessert	5.77	4.90
12	I eat a lot of fruits/vegetables ever since I was a child	5.62	5.29
13	Looking at others who consume fruits / vegetables, motivates me to eat fruits /vegetables	5.38	5.09
14	Friends and family members encourage me to eat fruits / vegetables	5.82	5.78
15	'Word of mouth' influenced on my fruits / vegetables consumption	5.36	5.23
16	It is easy to find stores nearby to buy fruits / vegetables	5.84	5.78
17	Variety of choices for fruits / vegetables can be found in shop around my neighbourhood	5.58	5.57
18	I eat fruits/ vegetables because it is always available at home	5.41	5.33
19	Knowing the benefits of consumption fruits / vegetables will motivate me to consume more	6.19	6.04
20	Availability of fruits / vegetables at nearby stores and at home will increase my fruits / vegetables consumption	5.96	5.85
21	Lower prices for fruits / vegetables will stimulate me to eat more fruits and vegetables	6.05	5.91
22	I intend to consume more fruits/ vegetables if I have social support from family members and friends	5.81	5.67