

Marketing Malaysian fruits to British consumers: Exploring influential factors

(Pemasaran buah-buahan Malaysia kepada pengguna British: Meneroka faktor berpengaruh)

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Abstract

The Malaysian National Agrofood Policy (MNAFP) sets the strategic directions for Malaysian agricultural development. One of the key focuses of MNAFP is to increase export value of Malaysian fruits. One market that is under explored is the United Kingdom, hence this study was carried out with British nationals in Malaysia to ascertain the market needs of this niche community in Malaysia. The aim of this study was to identify factors that influence British consumers' preferences in consuming Malaysian fresh fruits with the hope of increasing Malaysian fruits' exports to the United Kingdom. The four major fruits studied were durian, mangosteen, rambutan and starfruit. Qualitative method via Focus Group Discussion (FGD) was employed in this study. A semi-structured questionnaire was utilised in assisting the smooth flow of the FGDs. This study concluded that six underlying factors on fruits, i.e. physical aspects and utilisation, intrinsic traits and cost, knowledge on consumption, appearance, texture and content uniqueness and health benefits are factors found to influence British consumers' decision in consuming Malaysian fruits. This research developed a customised questionnaire to measure consumer perceptions of Malaysian exotic fruits. This study is a first-of-its-kind to identify the factors influencing consumption of Malaysian fruits within the British community living in Malaysia.

Introduction

The Malaysian National Agrofood Policy (MNAFP) sets the strategic directions for Malaysian agricultural development (MNAFP 2011). The policy coverage period is between 2011 and 2020. It was formulated to ensure that the strategic role of Malaysian agricultural sector in national development is sustained and enhanced.

These directions are in light of new and emerging challenges facing agricultural development until the year 2020. One of the key focuses of MNAFP is to increase export value of Malaysian fruits. Generally, exports of Malaysian fruits have room for growth but market research on Malaysian fresh fruit has been limited, if any. Prior market studies suggest that new markets

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must be established to create demand while existing ones require a whole new set of marketing strategies. It is with this in mind that this study was carried out with British nationals in Malaysia to ascertain the market needs of the community. Specifically, this study was carried out to understand the British community preferences in consuming Malaysian fresh fruits.

The British were selected as the respondents in this study due to Malaysia's long history with the United Kingdom (UK) and it has been a major trading partner of Malaysia. However, in comparison to Netherlands (Malaysia's major importer from Europe), the export value of Malaysian fruits (dried and fresh) to United Kingdom has been rather low (*Table 1*). Henderson (1992) stated that a lack of knowledge on preparing exotic fruits is one of the elements that hinders exotic fruit consumption in the UK. Since Malaysian fruits are considered exotic, hence, the low demand for Malaysian fruits could be attributable to this reason. In order to increase consumption of these

Table 1. Total fruit exports to United Kingdom and Netherlands

Year	United Kingdom RM ('000)	Netherlands RM ('000)
2009	951	20,846
2010	759	26,652
2011	1,474	20,491
2012	5,772	20,233
2013	2,107	21,508

Source: UNCOMTRADE (2015)

Table 2. Selected* fruit exports to United Kingdom and Netherlands

Year	United Kingdom		Netherlands	
	Quantity (kg)	RM ('000)	Quantity (kg)	RM ('000)
2009	83,977	819	2,194,059	19,371
2010	169,046	684	4,395,578	25,281
2011	121,748	781	2,739,806	19,010
2012	127,494	1,449	1,926,612	18,109
2013	246,627	1,726	1,877,476	20,933

Source: UNCOMTRADE (2015)

*Include HS code H1-0810 (fresh fruits, not elsewhere specified)

fruits, Clarke and Moran (1995) indicated that it is important that consumers are educated by retailers on preparation method and presentation of new fruits.

Methodology

In this study, the four major fruits studied were durian, mangosteen, rambutan and starfruit. The export quantity and value of these fruits to UK is relatively low as compared to Netherlands, an indication that there is high potential to market Malaysian fruits to UK (*Table 2*).

Prior studies concerning Malaysian fruits, in general have only been carried out to determine the consumption of fruits among locals (Arshad et al. 2005) and patterns of fruits consumption among adults of different ethnic groups in Selangor (Izzah et al. 2012). No studies concerning preference of foreign nationals in consuming Malaysian fruits have been reported based on the author's knowledge. It is with this in mind, this study was carried out among the British community in Malaysia to address consumption. Qualitative method via Focus Group Discussion (FGD) was employed in this study. FGD was utilised in this study since there is no better than qualitative research to understand the in-depth motivations and feelings of consumers (Mc Daniels and Gates 1993). In addition, qualitative research is practical in obtaining people's perception, opinions and ideas on the research topic in a group discussion setting (Churchill 1991; Kinnear and Taylor 1996; Vaughn et al. 1996) as in this study.

Purposive sampling was employed in this study. According to Barbie (2003), purposive sampling is appropriate to be used in situations, as in this study where a targeted sample was needed to be achieved quickly and where sampling for proportionality is not the primary concern. It is a popular mode to be used in qualitative research (Abd Rahim 2009). Patton (1990) stated that purposive sampling is also appropriate when the study carried out has restrictions in time and costs, has better access to the population and finding a sample in which the snowball process is much more effective.

Official invitation letters were sent out to 10 international schools and various Britain affiliated associations in Malaysia explaining the purpose of the study. This was followed by telephone calls confirming participation. As a result, only four international schools' staffs agreed to participate in this study. The principals of the respective schools and the presidents of the parent-teacher associations were approached to discuss on the implementation of the FGDs. Ultimately, the British school teachers and staffs working in these four schools along with parents of children attending these schools participated in the FGDs. Various communication tools namely newsletters, posters, school notice boards and e-mails were utilised in disseminating information regarding the study to target respondents.

A total of 20 respondents participated in four FGDs. The FGDs were held during the recess period and/or after school in a quiet corner of the school canteen. All four FGDs lasted over a two-month period, during the fruit season. Each FGD session was between 60 and 90 minutes. The moderator of the FGDs was the principal investigator of this study who has experience in moderating similar FGDs in the past. The research team member consists of primarily trained research assistants. They have carried out similar market studies previously and hence, were equipped with

the required expertise and knowledge to assist in this study.

Once target respondents were identified, arrangements, i.e. date, time and venue were finalised to carry out the FGDs. The flow of event for the respective FGDs was as follows:

- Posters of FGD providing brief information about the study were displayed at visible locations of the school canteens to attract additional respondents to participate in the study
- All four fruits were displayed on a table along with government-published pamphlets. The pamphlets briefly introduced the respective fruits, i.e. their nutritional benefits and method of consumption
- A set of four semi-structured questionnaires catering to the four fruits, respectively were placed at the end of display table
- Four research team members were stationed at the display table, each attending to the respective fruit type
- The moderator of the FGD walked the respondents through the respective fruits under study, mainly introducing them to the whole and cut/opened fruits
- The respondents were then requested to sample the fruits and subsequently selected a fruit of choice according to their preferences. Then, they were directed to the research team member who was responsible for the fruit type. Awareness on the correct method of consuming this fruit type was created via demonstration from the specific research team member
- The respective team members then provided additional units of the respondents' preferred fruit type on a plate along with the respective fruit questionnaire. Respondents were requested to answer only one set of questionnaire representing the fruit they selected
- The respondents then sat in a group according to their fruit type and shared

their experiences with the moderator with assistance and guidance from the questionnaire. The questionnaire was mainly utilised to complement the discussions and to ensure the smooth running of the FGDs

- Discussions were recorded and completed questionnaires were collected once the session ended

The questionnaire was a 52 item instrument employing nominal and ordinal data type questions primarily and with some open-ended ones. The instrument was a modified version of Miyauchi's and Perry's research (1999) and divided into five sections:

- Demographic profile of respondents
- Consumption of fruits
- Consumption of Malaysian fruits
- Stimulating consumption of Malaysian fruits
- Distribution channel

Data were analysed both qualitatively and quantitatively. Qualitative data was gathered via feedback and observation that was compiled and summarised using content analysis to quantify the data. The Statistical Package of Social Sciences version 16.0 was used for all quantitative analyses. Non-parametric testing, i.e. Chi-square test was utilised in data analysis as it was found to be useful in this study due to the small sample size (20). The assumption in non-parametric testing is that the population variable values from which the samples were drawn are not normally distributed, similar to the population in this study. Additionally, Chi-square test of independence was appropriate to analyse questions that were in ordinal and nominal scales. It was carried out to establish relationships between two discrete variables and the level of significance selected for use was defined at $p < 0.10$.

Principal component and factor analyses were used to portray the influential factors affecting respondents' decision to consume the fruits under study. Both

analyses are exploratory and confirmatory. These methods have been discussed at length in many statistical books and studies (Harman 1970; Mardia et al. 1979; Seber 1984; Haris 1985; Johnson and Wichern 1988; Tabachnick and Fidell 1989; Muhamad Setefarzi and Tengku Mohd Arif 2006). The objective of both analyses is to identify a relatively small number of factors that can be used to represent relationships among sets of many interrelated variables. A minimum of five subjects per variable is required for factor analysis (Coakes and Steed 1999). The basic assumption of factor analysis is that underlying factors can be used to explain complex phenomena. Observed correlation between variables results from their sharing of these factors. Using factor analysis in marketing research, for example, enables researchers to express consumer ratings of products as a function of factors such as product quality and utility (Abd Rahim 2009). Only factors with eigenvalues greater than 1.0 were retained, while factors with less than 1.0 were not included in the model. Aaker et al. (2003) recommended that the factors extracted should account for at least 60 – 70% of the variance, respectively. Influential fruit attributes are listed in *Table 3*.

Factor analysis and principal component analysis involve many variables, and in general the model is written as:

$$X_i = A_{i1}F_1 + A_{i2}F_2 + \dots + A_{ik}F_k + U$$

Where,

X_i = i th standardised variable

A_{ij} = Standardised multiple regression coefficient of variable i on common factor j

F = Common factor

U = Unique residual factor

k = Number of common factors

The unique factors are set to be not correlated with each other and with the common factors. The factors are inferred from the observed variables and can be

estimated as linear combinations of them. The general expression for the estimate is:

$$F_i = \sum_{i=1}^p W_{i1}X_1 + W_{i2}X_2 + W_{ip}X_p$$

Where,

F_i = Estimate of the i th factor

W_i = Weight of factor score coefficient

p = Number of variables

The first factor explains the largest portion of total variance, and then a second set of weights can be selected, so that the second factor accounts for most of the residual variance, subject to being not correlated with the first factor. This same principle is applied to select additional weights for the additional factors. Unlike the values of the original variables, factor scores are

Table 3. Fruit attributes that influence respondents in consuming Malaysian fresh fruits*

Code	Variable
X1	Fruit shape
X2	Fruit size
X3	Flesh/pulp size
X4	Fruit colour
X5	Flesh/pulp colour
X6	Thickness of flesh/fruit
X7	Fruit/pulp texture
X8	Taste
X9	Aroma
X10	Seed size
X11	Water content
X12	Presentation of fruit
X13	Freshness
X14	Ease of consumption
X15	Fruit quality
X16	Uniqueness (something different)
X17	Health benefits
X18	Price
X19	Knowledge on when to consume
X20	Variation in the way to consume (different preparations)
X21	Use of fruit in the food service sector (restaurants, hotels, cafes etc)

*Represents rambutan, durian, starfruit and mangosteen

not correlated. The first factor accounts for the highest variance in the data, the second factor the second highest, and so on.

Results and discussion

Demographic profile of respondents

Out of 20 respondents, 8 selected mangosteen, 7 selected starfruit, 4 selected rambutan and 1 selected durian as their preferred fruit choice (Table 4). The total number of female respondents was 75% and male 25%. Majority of respondents (85%) were in the age group of 20 – 39 years old with an average age of 34. About 60% respondents possessed postgraduate

Table 4. Demographic profile of respondents (n = 20)

Variables	Percentage
Fruit type	
Mangoesteen	40
Starfruit	35
Rambutan	20
Durian	5
Gender	
Male	25
Female	75
Age	
20 – 29	30
30 – 39	55
40 – 49	10
>50	5
Education	
Postgraduate	60
Undergraduate	30
High school/diploma	10
Marital status	
Married	60
Single	40
Number of years living in Malaysia	
<1 year	10
1 – <2 years	20
2 – <3 years	25
3 – <4 years	10
4 – <5 years	10
5 years and above	25

qualification, 30% attained undergraduate degree while 10% obtained high school and diploma qualification. Majority of the respondents (60%) were married. About 70% of the respondents have lived less than 5 years in Malaysia.

Consumption of fruits

Majority of respondents (65%) consumed fruits on a daily basis, seven times a week, an indication that fruits are generally consumed frequently by the British population in Malaysia. Chi-square analysis indicated that among the popular 16 fruits, respondents only consumed two fruits, i.e. apple and banana frequently on a weekly basis (Table 5), in consensus with findings by Mintell Marketing Intelligence (1994) that, apples and bananas remain the most popular fruits in the UK. The remaining 13 fruits such as guava, orange, kiwi, papaya, pear, strawberry, mango, dragon fruit, pineapple, blueberry, lychee,

melon and cherry were not consumed on a weekly basis. The FGD revealed that all of the respondents do not consume durian, mangosteen and rambutan, despite being in season and also starfruit, although available all year long, on a weekly basis. Majority (34%) of respondents consumed fruits during lunch, followed by breakfast (24%) and during tea (16%).

Consumption of Malaysian preferred fruits

In general, this study found that although 60% of respondents observed the sale of these fruits in the UK, yet none of them consumed these fruits previously in their countries. This is because, according to the respondents in UK, these fruits were expensive, in poor quality condition and respondents lack sufficient knowledge on timing of consumption (determination of consumption is dependent on the ripeness) and method of preparation. The findings of this study conform to Henderson (1992), in which it was found that exotic fruits in the UK were perceived as expensive, risky to be purchased and there exist a lack of understanding on how to prepare them.

In this current study, 85% of respondents consumed their preferred fruit type, prior to this study while the rest have not, during their stay in Malaysia. About 85% of respondents who had previously tasted their preferred fruit did so at hotels (41%), friend's place (23%), restaurants (23%) and shops (18%). Although they have consumed these fruits before, they were never exposed on the correct preparation technique (i.e. for example method of opening durian). This is because these fruits were already prepared to be consumed. The 15% of respondents who have not tasted these exotic fruit types were relatively unaware of the proper preparation technique, had inadequate knowledge of the fruit type and had a tendency of consuming fruits that are familiar to them. The reasons provided by this group of respondents were similar to the findings reported by Henderson (1992).

Table 5. Number of respondents and the type of fruits consumed frequently on a weekly basis with their *p*-values (Chi-square) (n = 20)

Fruit type	Respondents		χ^2	<i>p</i> -values
	Yes	No		
Apple	17	3	9.8	0.002
Banana	14	6	3.2	0.074
Grapes	11	9	0.2	0.655
Kiwi	6	14	3.2	0.074
Mango	6	14	3.2	0.074
Orange	5	15	5	0.025
Melon (rockmelon, honey dew)	4	16	7.2	0.007
Papaya	3	17	9.8	0.002
Blueberry	2	18	12.8	<0.001
Pear	2	18	12.8	<0.001
Pineapple	2	18	12.8	<0.001
Strawberry	2	18	12.8	<0.001
Cherry	1	19	16.2	<0.001
Dragon fruit	1	19	16.2	<0.001
Guava	1	19	16.2	<0.001
Lychee	1	19	16.2	<0.001

According to the respondents, except for durian, the three fruits (mangosteen, rambutan and starfruit) were found to taste between sweet and sour (55%) and exotic (45%). The common physical traits that were described by majority of the respondents in all fruits were fleshy (50%) and juicy (45%). The respondents also singled out their preferences on the starfruit shape and its crunchiness. Majority of respondents (90%) preferred consuming these fruits fresh as compared to processed fruits (Table 6). About 85% of respondents do not favour ice-cream and 95% do not prefer juice (95%).

Stimulating consumption of Malaysian fruits

The correlation matrix, constructed from the data obtained, is shown in Table 7 and 8, respectively. Please refer to the fruit attributes listed in Table 3 for understanding of the attributes involved.

The communalities (Table 9) show that over 90% of the variances of 18 variables (X2, X3, X4, X5, X6, X7, X8, X10, X11, X12, X13, X14, X15, X16, X18, X19, X20 and X21) are accounted for, and the same is indicated by over 80% in the three remaining variables (X1, X9 and X17).

The eigenvalues which accounted for the variances of the factor pattern are presented in Table 10. As explained in the data analysis section, only eigenvalues greater than 1 were used. Initial analysis showed variations in the values of the variable and correlations among several variables (as explained above), both indicating the possibility of using factor

analysis. Initial solution resulted in six factors (components) that had eigenvalues of more than one with a total of 95.6% variance explained. The first factor accounted for 47.6% of the variance explained, the second factor contributed 17.0%, the third factor 11.2%, the fourth factor 9.2%, the fifth factor 5.8% and the sixth factor 4.8%.

The varimax rotated factor matrix for 21 fruit attributes is shown in Table 11. Only factors that accounted for at least 60% to 70% of the variance were considered. The factor matrix contains the factor loadings or coefficients used to express the standardised variables in terms of the factors. These factor loadings represented the correlations between the factors and the variables. A loading with large absolute value (equal or more than 0.5) indicates that the factor and the variable are closely related. Factor one is accounted by 47.56% of the total variation which seems heavily loaded (loading >0.80) on use of fruit in the food service sector, fruit colour, flesh/pulp colour, flesh/pulp size, thickness of flesh/fruit and variation in the way to consume. Generally, factor 1 is associated with fruit physical aspects and utilisation. Factor 2 is heavily loaded on taste, price, fruit quality and highly loaded on freshness while moderately loaded on aroma. Factor 2 can be categorised as fruit intrinsic traits and cost. Factor 3 is heavily loaded on ease of consumption and knowledge on when to consume while highly loaded on seed size. Factor 3 can be labelled as knowledge on fruit consumption. Factor 4 is heavily loaded on presentation and fruit shape, and highly loaded on fruit size. This factor can be considered as fruit appearance. Factor 5 is heavily loaded on fruit/pulp texture and moderately loaded on water content. Fruit texture and content best describe this factor. Factor 6 is heavily loaded on uniqueness and moderately loaded on health benefits. This factor can be considered as fruit uniqueness and offers health benefits.

Table 6. Preferred mode of fruit consumption (Chi-square) (n = 20)

Preferred mode of consumption	Respondents		χ^2	p-values
	Yes	No		
Fresh	18	2	12.8	<0.001
Ice-cream	3	17	9.8	0.002
Juice	1	19	16.2	<0.001

Table 7. Correlation matrix for 21 fruit attributes influencing respondents' decision in consuming Malaysian fresh fruits

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	X21	
X1	1.000																					
X2	0.577	1.000																				
X3	0.105	0.357	1.000																			
X4	0.105	0.357	1.000	1.000																		
X5	0.105	0.357	1.000*	1.000*	1.000																	
X6	0.098	0.134	0.935*	0.935*	0.935*	1.000																
X7	0.194	0.151	0.491	0.491	0.491	0.566*	1.000															
X8	0.105	0.357	0.357	0.357	0.357	0.334	0.661*	1.000														
X9	-0.025	0.068	0.679*	0.679*	0.679*	0.635*	0.449	0.679*	1.000													
X10	0.069	0.661	0.661*	0.661*	0.661*	0.354	0.100	0.236	0.449	1.000												
X11	0.127	-0.347	0.434	0.434	0.434	0.649*	0.596*	0.043	0.268	-0.229	1.000											
X12	0.732*	0.737*	0.347	0.347	0.347	0.324	0.229	0.152	-0.082	0.229	0.184	1.000										
X13	0.127	0.434	0.434	0.434	0.434	0.406	0.390	0.824*	0.639*	0.287	0.053	0.421	1.000									
X14	-0.038	0.577	0.577*	0.577*	0.577*	0.392	0.444	0.341	0.199	0.693*	-0.159	0.159	0.127	1.000								
X15	0.392	0.535	0.535*	0.535*	0.535*	0.500*	0.354	0.735*	0.635*	0.354	-0.081	0.324	0.649*	0.392	1.000							
X16	0.098	-0.267	0.535*	0.535*	0.535*	0.750*	0.354	-0.067	0.254	-0.177	0.649*	0.081	-0.081	0.098	0.250	1.000						
X17	0.243	0.189	0.614*	0.614*	0.614*	0.707*	0.350	0.402	0.561*	0.125	0.229	0.287	0.488	0.243	0.707*	0.707*	1.000					
X18	0.381	0.661	0.236	0.236	0.236	0.088	0.100	0.661*	0.449	0.438	-0.488	0.229	0.545*	0.381	0.884*	-0.177	0.406	1.000				
X19	-0.098	0.267	0.668*	0.668*	0.668*	0.500*	0.495	0.267	0.508*	0.707*	0.081	-0.081	0.081	0.784*	0.250	0.250	0.354	0.177	1.000			
X20	-0.105	0.286	0.929*	0.929*	0.929*	0.869*	0.529*	0.446	0.696*	0.614*	0.347	0.238	0.542*	0.603*	0.468	0.468	0.661*	0.189	0.735*	1.000		
X21	0.055	0.189	0.869*	0.869*	0.869*	0.919*	0.620*	0.529*	0.683*	0.350	0.642*	0.390	0.642*	0.305	0.495	0.495	0.550*	0.125	0.354	0.832*	1.000	

*Indicates high correlation (more than 0.5)

Table 8. Correlation matrix showing high correlation breakdown among the 21 fruit attributes

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	X21		
X1																							
X2											◊												
X3																							
X4																							
X5				◊																			
X6				◊	◊																		
X7						◊																	
X8							◊																
X9								◊															
X10									◊														
X11										◊													
X12											◊												
X13												◊											
X14													◊										
X15														◊									
X16															◊								
X17																◊							
X18																	◊						
X19																		◊					
X20																			◊				
X21																				◊			

◊ Indicates high correlation (more than 0.5)

Table 9. Communalities of different respondents' variable

Attribute	Communality
X1	0.855
X2	0.994
X3	0.993
X4	0.993
X5	0.993
X6	0.989
X7	0.999
X8	0.996
X9	0.865
X10	0.957
X11	0.968
X12	0.966
X13	0.938
X14	0.916
X15	0.964
X16	0.990
X17	0.894
X18	0.972
X19	0.922
X20	0.949
X21	0.975

These six underlying factors (fruit physical aspects and utilisation, fruit intrinsic traits and cost, knowledge on fruit consumption, fruit appearance, fruit texture and content, fruit uniqueness and health benefits) can be considered as the influential factors affecting the respondents' decision in consuming Malaysian fruits. In this study, all 21 fruit attributes that were obtained based from previous studies were also found to be useful in influencing respondents' decision to consume Malaysian fruits.

In a move to save the environment, 63% of respondents indicated their strong packaging preferences towards biodegradable container and paper box. Majority of the respondents (85%) also mentioned that due to this study, they have become aware and have learnt the appropriate preparation technique of these fruits, hence, they will definitely consume these fruits in the future. Additionally,

Table 10. Unrotated eigenvalues and variance explained

Component/ Factor	Eigenvalue	Variance explained (%)	Cumulative variance explained (%)
1	9.987	47.56	47.56
2	3.567	16.99	64.55
3	2.357	11.22	75.77
4	1.935	9.21	84.98
5	1.224	5.83	90.81
6	1.018	4.85	95.66

majority of respondents (90%) stated that supermarkets would be the best channel of promotion and distribution for Malaysian fruits in the UK. This finding is similar to Clarke and Moran (1995), in which they indicated that supermarkets have been and will continue to be, the best channels of distribution for exotic fruits.

Conclusion and recommendation

Generally, respondents were delighted to partake in this one-of-a-kind study on Malaysian fruits. This study realised its objectives of identifying influential factors pertaining to British consumers' preferences in consuming Malaysian fresh fruits.

It is important to take note of the various factors that are associated in promoting and selling a fruit (fruit physical aspects and utilisation, fruit intrinsic traits and cost, knowledge on fruit consumption, fruit appearance, fruit texture and content, fruit uniqueness and health benefits). Meanwhile, in order to increase return purchases of British consumers, it is crucial to position local fruits among popular and familiar fruits such as apples and bananas. Since apples and bananas are frequently purchased, hence the chances of consumers purchasing Malaysian fruits are relatively higher since they are easily visible and accessible. In addition, leaflets and recipe cards detailing the fruit type, its consumption method and variation in consumption should also be placed strategically along-side with the respective

Table 11. Varimax rotated factor pattern - A matrix of factor loadings for respondents' decision on consuming Malaysian fruits

Code	Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
X21	Use of fruit in the food service sector (restaurants, hotels, cafes etc)	0.890					
X4	Fruit colour	0.885					
X5	Flesh/pulp colour	0.885					
X3	Flesh/pulp size	0.885					
X6	Thickness of flesh/fruit	0.883					
X20	Variation in the way to consume (different preparations)	0.847					
X8	Taste		0.869				
X18	Price		0.852				
X15	Fruit quality		0.820				
X13	Freshness		0.773				
X9	Aroma		0.626				
X14	Ease of consumption			0.908			
X19	Knowledge on when to consume			0.830			
X10	Seed size			0.706			
X12	Presentation of fruit				0.930		
X1	Fruit shape				0.873		
X2	Fruit size				0.746		
X7	Fruit/pulp texture					0.869	
X11	Water content					0.644	
X16	Uniqueness (something different)						0.818
X17	Health benefits						0.656
Eigenvalues		9.987	3.567	2.357	1.935	1.224	1.018
Proportion of variance (%)		47.56	16.99	11.22	9.21	5.83	4.85
Cumulative proportion of variance (%)		47.56	64.55	75.77	84.98	90.81	95.66

Significant loading criterion:

$A_{ik} < 0.50$ = not significant; $0.51 < A_{ik} < 0.69$ = moderate loading;

$0.70 < A_{ik} < 0.79$ = higher loading; $A_{ik} = > 80$ = heavy loading (highly significant)

fruits. The purpose of doing so will assist in educating not-so-familiar consumers on our local fruits which hopefully translates to increase purchases of exotic fruits. These leaflets and recipe cards can also be placed at the soup, snack, dessert and pastry food shelves so as to introduce these fruits as enriching ingredients that can be added into the preparation of healthy diets.

Limitation and suggestion for future research

This study churned out some pertinent findings in relation to British consumers' preferences on selected Malaysian fruits attributes. These preferences must be considered and looked into before these fruits undergo extensive market testing with a larger group of consumers in the

UK. This is necessary as it would assist to gauge the acceptance level of Malaysian fruits in the UK before efforts of marketing these Malaysian exotic fruits are carried out rigorously.

The results of this study cannot be generalised because our sample size was small and the participants were not randomly selected. Survey methods are recommended to be carried out as to confirm the findings of this study, establish some generalisability and provide greater contribution to consumer preference studies on fruits.

This study also established a need to conduct further research concerning the relationship between fruit intake and health benefits, and nutritional habits of the growing population, i.e. locals and foreigners in Malaysia. By doing so, future studies will be able to contribute, enrich and validate findings of current like-minded studies which will aid in promoting healthy lifestyles through fruit consumption among its population. Since food safety has been identified as a crucial factor in marketing fresh agriculture produce, as such, this study suggests that this element is incorporated in educating consumers on fruit consumption.

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Abstrak

Dasar Agromakanan Negara (DAN) menetapkan hala tuju strategik bagi pembangunan industri pertanian dan asas tani. Salah satu fokus utama DAN adalah untuk meningkatkan nilai eksport buah Malaysia. Pasaran United Kingdom merupakan salah satu pasaran yang mempunyai potensi tinggi bagi pengimportan buah Malaysia, namun pada masa kini, nilai eksport Malaysia adalah rendah. Tujuan kajian ini dijalankan adalah untuk mengenal pasti faktor yang mempengaruhi pilihan pengguna British dalam memakan buah segar Malaysia. Kajian ini berasaskan empat buah utama iaitu durian, manggis, rambutan dan belimbing. Kaedah kualitatif melalui kumpulan fokus perbincangan (FGD) digunakan di dalam kajian ini. Satu soal selidik separa berstruktur digunakan bagi membantu dalam pengendalian kumpulan fokus. Dapatan kajian menunjukkan bahawa terdapat enam faktor yang mempengaruhi pengguna British memakan buah segar Malaysia. Faktor ini tergolong di bawah aspek fizikal dan penggunaan, sifat intrinsik dan kos, pengetahuan mengenai penggunaan, rupa, tekstur dan kandungan, keunikan dan faedah kesihatan. Kajian ini merupakan yang terulung dalam mengenal pasti faktor yang mempengaruhi penggunaan buah-buahan Malaysia oleh masyarakat British yang menetap di Malaysia.