

## Evaluating bahulu the traditional food: From the perspective of consumers

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### Abstract

Bahulu, a popular traditional food in Malaysia is produced mainly by the Small and Medium Entrepreneurs (SMEs) who are often micro in size and function as both producers and sellers of the food in the marketplace. A problem usually faced by these enterprises is on matching their bahulu offer with consumers' preferences that eventually will lead to loss of sales volume, loss of customers and stunted business growth. This study attempts to find out how consumers evaluate bahulu using various aspects of the food product offer. A survey on 671 consumers from three different states in Malaysia (Penang, Perlis and Kedah) revealed that consumers in general prioritize the product aspect more than on how it is packaged, priced and branded. Overall, halal (label) is the most critical component expected by consumers, followed by its color and softness (product), and manufacturer's address (label). Interestingly, branding, packaging and health aspect of the food were amongst the lowest ranked by consumers for this product. Some similarities and slight differences in how each consumer group evaluates the bahulu components were also found. The findings provide some insights for the bahulu micro entrepreneurs (BMEs) on what to focus on when marketing the food.

### Keywords

Traditional snack  
Bahulu  
Product attributes  
Malaysia

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### Introduction

While the Small and Medium Enterprises (SMEs) are acknowledged as the backbones of the Malaysian economy (Bank Negara Malaysia, 2006; National SME Development Council, 2007; Normah, 2007), the country's SMEs are mainly made up of micro enterprises. The micro enterprises are characterized by their limitation in capital ability especially in resources such as human and financial aspects (Abdul Wahid *et al.*, 2010a), and commonly face problems like lack of capital, obsolete machines, lack of entrepreneurship knowledge, inadequate assistance from relevant government agencies, slow delivery system and lack of skills in running their projects (Salleh *et al.*, 2010). Micro enterprises struggle to compete with big companies in the marketplace (Euromonitor International, 2007); examples include the ability in offering consistent product quality as well as other marketing related aspects like branding, labeling, certification, pricing, packaging, promotion and image (Abdul Wahid, 2009; Abdul Wahid and Mudor, 2009; Abdul Wahid *et al.*, 2010; Mudor *et al.*, 2010; Omar *et al.*, 2015). Within the food sector like the small enterprises that produce and sell local traditional snack foods like bahulu and keropok lekor (fish snack), these issues are real (Abdul Wahid and

Mudor, 2009; Mudor *et al.*, 2010; Haron *et al.*, 2010; Omar *et al.*, 2015).

An observation made on the bahulu micro enterprises (BMEs) by Abdul Wahid *et al.* (2010b) revealed: "they produce only what they know best, which generally follows strictly on tips and advices from their ancestors, on whom they inherited their traditional bahulu recipes and business from" and neglected other product quality aspects that they do not know like the ones from their consumers. Shafie *et al.* (2010) found that the BMEs have neglected the issue of securing Halal certification which is an important issue for consumers when purchasing food product. As they note, the BMEs are from the Malay ethnic group, a dominant ethnic group in Malaysia who in general are Muslims, thus, the BMEs perceived that halal will not be an issue with their consumers. Haron *et al.* (2010) observation concluded that the BMEs can only succeed if they are willing to change their business mindset to suit the current marketplace thinking which is 'outside-in' rather than the one practiced by the BMEs, i.e. the 'inside-out'. The adoption of such thinking style may be due to the fact that majority of the BMEs are made up of veterans or the elderly who continue to produce bahulu the traditional way instead of willing to open up for new ideas in their practices.

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These issues if not tackled, can impact the BMEs (as well as other SMEs) directly in terms of product sales, business growth and enterprise's survivability (Abdul Wahid *et al.*, 2010a; Haron *et al.*, 2010; Mudor *et al.*, 2010; Shafie *et al.*, 2010). Omar *et al.* (2011) study on keropok lekor (fish snack), another popular traditional food in Malaysia found similar findings as in the bahulu's case. The food quality aspect i.e. taste was found to be the main reason for why consumers consume the food. While their respondents suggested for variation of taste of the keropok lekor to be offered in the marketplace, Omar *et al.* also observed that the food producers, made up of micro and small enterprises continue to produce the food the traditional way, as they had learned from their ancestors. This means the consumer's suggestion for food taste variation to be taken up by many of these micro producers is unlikely. As local studies indicate potential continuous growth and development for the food industry, like in the young consumers market (Ahmad and Jamaluddin, 2010); it is important for the traditional food producers to start focusing on using the available business tools to help them market the products. To do this however, an understanding on consumers' behavior towards the products must be built. In line with this intention, in this study, the researchers attempt to find out how consumers evaluate bahulu, as a representative of traditional food on various importance aspects of the product offer. The findings will be important for BMEs to help them strategize how they are going to market their product to attract the customers as per customers' requirements, not theirs.

The literature identified two types of bahulu in the market; i.e. traditional and modern bahulu (Abdul Wahid *et al.*, 2010a). Traditional bahulu is a bahulu laden with specific bahulu characteristics i.e. authentic taste, aroma, shape ('cermai' and fish), and colour (golden yellow colour is considered the natural color of the food); whereas modern bahulu is when it is added with new attributes like flavour (e.g. strawberry, chocolate, pandan, etc.), colorful (either one or more), and with modern shapes that have not been associated with bahulu before (e.g. car shaped bahulu). Local studies conducted on bahulu's quality have focused on two types of bahulu's quality; namely, the objective quality and the subjective quality of the food.

In brief, objective quality refers to the sensory (feeling of pleasure or delight in consuming the food which can be represented from the food's taste, texture and aroma/smell), functional (represented by the various cognitive benefits offered by the food, e.g. health-related benefit) and symbolic (attributes that

help to express or symbolize something like related status, brands etc.) aspects of food (e.g. Abdul Wahid and Mudor, 2009; Abdul Wahid *et al.*, 2009; Mudor *et al.*, 2010). Other local studies on traditional food quality focused on the sensory aspect or on functional and symbolic aspects perceived by customers (Omar *et al.*, 2011). While objective quality is evaluated cognitively (decided rationally), subjective quality in contra emphasized on subjective evaluation (not necessary rational as it is basically perceived evaluation) made by consumers of the food.

A study by Abdul Wahid and Mudor (2009) found gaps on how bahulu quality is perceived between bahulu producers and consumers in Penang; mainly the consumers' evaluation of the food's quality attributes were lower than the producers in all three dimensions they investigated (sensory, functional and symbolic). Similar conclusion is found for consumers and BMEs in Perlis although the importance placed on the attributes were slightly different from the ones found in Penang (Mudor *et al.*, 2010). The perception mismatch between bahulu producers and consumers on bahulu quality as shown in these studies indicates the importance to solve the bahulu quality perception issue in the marketplace. In marketing, quality problem is directly linked to product offer which is considered critical in the traditional marketing mix that consists of the 4Ps – product, price, place and promotion. The 4Ps are supposed to be controllable factors for an organization when deciding on the planning and marketing of its products/services. In brief, the first P – Product refers to the ready-made product and/or services for the end consumers; the second P – Price deals with the profit that the firm intends to make from the product and/or services sales, hence various strategies like fixed pricing, economy versus premium pricing, psychological pricing and others are usually used to attract consumers to buy the product offer; the third P – Place includes various distribution channels, warehouses, transportation, and inventory control that firm needs to ensure the products and/or services can be accessible to the end-consumers; while the fourth P – Promotion focuses on the many interesting short term activities taken up by the firm like publicity, public relations, advertisements, sales promotion, exhibitions, festivals, demonstrations, etc. to attract consumers into buying when they have no intent to do so in the first place, or buy in bulk when they only need a piece or two of the product and/or services offered, and willingly become the promoter of the products and/or services to other people (through word-of-mouth, social media and all). For SMEs particularly those who are micro in size, managing the 4Ps may

not be the only problem to solve as prior to this, they need to understand what the 4Ps are, when, where, why and how to use them in their practice. Coupled with their lack of resources as pointed out by Salleh *et al.* (2010), it is normal to find the SMEs to adopt what they can in their micro business practice. This includes focusing only on some of the 4Ps described earlier which are sometimes carried out via 'trial and error' basis.

The literature has reported many studies that focus on investigating the effect of the marketing mix components either on all four or some of the 4Ps on consumer's behavior. Many researchers for instance concluded that consumer's behavior towards food aspects depend very much onto what they know about the product in question. For example, Rimal and Fletcher (2003) concluded that consumers' positive or negative attitudes towards nutrition depend very much on what they know about food nutrition and food characteristics. Similarly, Dixon *et al.* (2006) concluded that incorrect convenience food choices, consumption and consumers' obesity are the result of consumers' limited knowledge to assess the marketing information given to them on the food. For example, although hand size portion (snacking) food benefits consumers, what they may not know is that the convenience food can lead them towards obesity as the hand size portion food is easily consumed when consumers are on the move or mobile.

Other studies associated product brand, branding and packaging issues with consumer's purchase decision (Desai and Ratneshwar, 2003; Silayoi and Speece, 2004). A dominant and highly visible product brand in the market can easily affect how consumers perceive that brand with the major attribution of the product category like size, shape, ingredients and taste of cookies (Desai and Ratneshwar, 2003). On the other hand, brands that are not well known in the market often face consumer's acceptance problem (Wells *et al.*, 2007). Abdul Wahid *et al.* (2010b) and Haron *et al.* (2010) found that BMEs acknowledged the importance of packaging although branding is acknowledged only by some. As for packaging, attractive product package helped to evoke not only children's memory to brand names but also the symbolic environment made up of visual and verbal codes in which brand names are stated (McNeal and Ji, 2003). Wells *et al.* (2007) reported that majority of consumers indicate that they rely very much on product packaging at the point of product purchase. This is also the reason for why company's own label brand of products like Tesco can create consumer loyalty.

McCullough *et al.* (2003) examination on pot

snacks, brands, health concerns and frequency of consumption found that consumers choose convenience food mainly because they are provided with quick and tasty snacks. In sum, this study identified convenience as the main asset of snack foods and the reason behind the food's success in the marketplace.

In addition, the importance of food attributes has been found to vary depending on the type of food consumed and the group of consumers investigated by researchers. A comparative study on a yogurt snack consumption between the elderly and young consumers for instance reported the importance of aroma as more important for elderly consumers rather than for the young (Kalviainen *et al.*, 2003); or that of the food's freshness importance in consumer's acceptance of a new high pressure freezing method for food (Lampila and Lahteenmaki, 2007). Literature review made on food's attributes or characteristics from various studies (e.g. Kalviainen *et al.*, 2003; McCullough *et al.*, 2003; Desai and Ratneshwar, 2003; Dixon *et al.*, 2006; Lampila and Lahteenmaki, 2007; Wells *et al.*, 2007; Abdul Wahid *et al.*, 2010b) managed to identify many attributes that vary from food quality like taste (e.g. sweetness, flavor) to physical appearance (e.g. neat, clean, natural colour, colourful), brand (e.g. specific, general), food label (e.g. halal, expiry date, manufacturing date), food product benefit (e.g. digestible size, healthy food, nutritiously balanced, light calories, less fattening, less sugar, high energy food, no preservatives, handy to carry, convenient to serve), price (e.g. price variation, economy price, not pricey, inexpensive, medium price, expensive price), and packaging (e.g. user friendly packaging, environmentally friendly packaging, transparent packaging) amongst others; and some of these attributes are also observed to be sometimes overlapping or quite similar termed to one another (e.g. sweet, sweetness, sugarless, less sugar, sugary are amongst the attributes reported in past studies that actually refers to the sugar component found within the food product). Some of these are found to be very much related with *bahulu* while others are not.

## Research Methodology

A survey was carried out on 1000 shoppers at 16 major shopping mall complexes in Pulau Pinang, Kedah and Perlis and at one SMEs expo held in Seberang Jaya, Pulau Pinang. The 16 shopping mall complexes identified were chosen based on their popularity and crowd pulling aspects. These consist of 8 shopping mall complexes in Kedah

Table 1. Profile of respondents

Demographic Variables	Categories	Frequency	Percentage (%)
Place of residence	1. Pulau Pinang	137	20.4
	2. Perlis	111	16.5
	3. Kedah	423	63.0
Gender	1. Male	198	29.5
	2. Female	473	70.5
Age	1. 25 years old and below	414	61.7
	2. 26-35 years old	139	20.7
	3. 36-45 years old	71	10.6
	4. More than 45 years old	47	7.0
Marital status	1. Single	441	65.7
	2. Married	230	34.3
Race	1. Malay	630	93.9
	2. Indian	9	1.3
	3. Chinese	20	3.0
	4. Other	12	1.8
Education level	1. Primary school	66	9.8
	2. Secondary school	393	58.6
	3. Diploma	127	18.9
	4. 1 <sup>st</sup> degree (Bachelor)	50	7.5
	5. Postgraduate (e.g. Master, PhD)	15 20	2.2 3.0

(Pekan Rabu Complex, City Plaza, Souq Al-Bukhari, Star Parade, Kulim, Tikam Batu, Central Square at Sg. Petani and Tesco Sg. Petani); 5 shopping mall complexes in Penang (Summit Bukit Mertajam, Bagan at Butterworth, Queensbay Mall, Bukit Jambul Shopping Complex and Gurney Plaza); and 3 shopping mall complexes in Perlis (Kompleks Kayangan Square, Medan Bazar Kangar, and Kompleks Perniagaan MARA).

Respondents for the study were selected through convenience sampling. Although the 1000 shoppers indicated their willingness to participate as respondents in the study, they were still subjected to answer three qualifying questions (i.e. Do you eat bahulu?, Have you purchased bahulu before?, Are you currently residing in any of these three states; i.e. Pulau Pinang, Kedah, or Perlis?) before they can proceed with the questionnaire. Only 776 of those shoppers who answered 'yes' to all of the three qualifying questions (by answering 'yes', the shoppers indicated that they are bahulu eaters, have past experience(s) in bahulu purchase, and come from Pulau Pinang, Kedah or Perlis) were invited to participate in the study. Respondents were asked to respond to the questionnaire that consists of demographic background questions and 17 components of the bahulu product offer which have been used by previous researchers as found in the literature and suited with the food offer in question (Table 1). A five-point Likert scale was used to measure respondent's level of agreement

to the statements starting from 1=strongly disagree to 5=strongly agree. The data were analysed using mean values to measure the bahulu attributes gaps and One-Way Analysis of Variance (ANOVA) Test of Differences to test for group differences amongst the Pulau Pinang, Perlis and Kedah bahulu consumers.

## Results and Discussion

From the total of 776 returned questionnaires, only 671 (86.5%) questionnaire were found usable for further data analysis. Usability of questionnaires was determined by the completeness of answers given by the respondents in the study. This means that any returned questionnaire with incomplete answers (those with more than three quarters missing) and questionable response/answers given to each of the statements (e.g. respondent only tick Likert scale no. 3 all the way through the questionnaire, or give more than one answer - tick three scale numbers like 2, 3, and 4 at once) were considered unusable and thus dropped from further analysis. The usable data were then descriptively analyzed by calculating the mean average for each of the bahulu component's importance as per Pulau Pinang, Kedah and Perlis consumer's evaluation responses. The mean value for each attribute was then rank-ordered accordingly with the highest mean value ranked as 1st whereas the lowest mean value ranked last (Table 1). One-Way Analysis of Variance (ANOVA) Test of Differences was also applied on the mean values of each attribute

Table 2. Mean average and ranking of bahulu's offer evaluation by consumers in Pulau Pinang, Perlis and Kedah (n=671)

Item	Bahulu's Offer Evaluation							
	P.Pinang (n=137)		Perlis (n=111)		Kedah (n=423)		Overall (n=671)	
	M	R	M	R	M	R	M	R
1. Price – Variation Of Price	4.04	11	3.86	14	3.96	12	3.95	13
2. Packaging Type - User Friendly	3.93	14	3.87	13	3.86	14	3.89	14
3. Packaging Type - Environmental Friendly	3.74	15	3.59	15	3.64	16	3.66	15
4. Labeling - Expiry Date	4.13	9	4.20	7	4.20	7	4.18	8
5. Labeling - Ingredient Contents	4.20	5	4.13	10	4.12	10	4.15	9
6. Labeling - Nutrient Contents	4.02	12	4.00	12	4.05	11	4.02	11
7. Labeling - Manufacturing Date	4.15	8	4.25	4	4.22	5	4.21	6
8. Labeling – Manufacturer's Address	4.18	7	4.27	3	4.24	4	4.23	4
9. Labeling – Halal Logo	4.34	1	4.40	1	4.37	1	4.37	1
10. Brand – Specific	3.68	16	3.56	17	3.65	15	3.63	16
11. Product – Freshness	3.95	13	4.06	11	3.87	13	3.96	11
12. Product – Clean	4.20	5	4.23	6	4.14	9	4.19	7
13. Product – Aroma	4.26	4	4.18	8	4.22	5	4.22	5
14. Product – Color	4.28	3	4.35	2	4.29	3	4.31	2
15. Product – Sweet	4.12	10	4.18	8	4.18	8	4.16	9
16. Product – Soft	4.31	2	4.25	4	4.	2	4.29	3
17. Product - Healthy	3.64	17	3.60	16	3.60	17	3.61	17

C= Consumers, R= Ranking based on mean's average  
Mean is calculated based on Likert scale of 1= strongly disagree to 5= strongly agree

from the Pulau Pinang, Kedah and Perlis consumer groups to determine the possibility that their evaluations of bahulu component's importance may differ from one another.

#### Profile of respondents

From the total of 671 respondents who participated in the study, 137 (20.4%) of them were from Pulau Pinang, 111 (16.5%) from Perlis and another 424 (63.1%) from Kedah. The respondents' profile display various level of education background from primary school to postgraduate level. The majority of the respondents was female (473 or 70.5%), aged around 25 years old and below (414 or 61.7%), not married (441 or 65.7%), and from Malay ethnic group (630 or 93.9%).

#### Consumers' evaluation on bahulu offer

From the results displayed in Table 2, overall, the halal label is identified and ranked as the most critical component expected by consumers. This is an important finding as Shafie *et al.* (2010) has found that this aspect is very much neglected by the BMEs in the country. This finding implies that excuses normally used by BMEs like consumers know that bahulu producers are Muslims, and/or that application of halal certification costs money in this country is no longer applicable as it is required by consumers. This may be so as halal covers the whole process of what and how the food is produced, as

such, seeing the halal logo or certification will make consumers feel at peace as they know that the food is safe to be consumed.

As expected, the food's color (product attribute), softness (product attribute), and aroma (product attribute) are ranked in second to fifth positions respectively. While the researchers expected to find product's components to be highly rated as product is the basis of any food offer, it is interesting to note that consumers ranked the manufacturer's address to be within the same position importance (ranked fourth). This finding is again important since many of the bahulu's package found sold in the marketplace by the BMEs have been observed not to include this information.

The study also found other labelling information that consumers require to be on the food's package include manufacturing and expiry dates of the food. These are also observed to be non-existent on some of the bahulu's packages sold in the market. These findings also supported Haron *et al.* (2010) suggestion that labelling is an aspect not to be ignored by SMEs like the BMEs although this study does not support their suggestion on the importance of packaging and image. The findings revealed that consumers ranked the importance of bahulu to be marketed as a healthy food (product image) last on the list. Equally ranked low in the list are the use of specific brands for the food (ranked 16), and type of packaging which are

Table 3. One way ANOVA test of differences based on mean average values of bahulu's offer evaluation by consumers in Pulau Pinang, Perlis and Kedah (n=671)

Bahulu component	Mean Value of Bahulu Offer Evaluation			ANOVA Test of Differences	
	Pulau Pinang (n=137)	Perlis (n=111)	Kedah (n=423)	F Value	Sig (p=0.05)
1. Price – Variation Of Price	4.04	3.86	3.96	.430	.651
2. Packaging Type - User Friendly	3.93	3.87	3.86	.412	.662
3. Packaging Type - Environmental Friendly	3.74	3.59	3.64	.366	.694
4. Labeling - Expiry Date	4.13	4.20	4.20	.430	.650
5. Labeling - Ingredient Contents	4.20	4.13	4.12	.688	.503
6. Labeling - Nutrient Contents	4.02	4.00	4.05	.195	.822
7. Labeling - Manufacturing Date	4.15	4.25	4.22	.590	.555
8. Labeling – Manufacturer's Address	4.18	4.27	4.24	.612	.543
9. Labeling – Halal Logo	4.34	4.40	4.37	.195	.823
10. Brand – Specific	3.68	3.56	3.65	.488	.614
11. Product - Freshness	3.95	4.06	3.87	2.166	.115
12. Product - Clean	4.20	4.23	4.14	.980	.376
13. Product - Aroma	4.26	4.18	4.22	.385	.681
14. Product - Color	4.28	4.35	4.29	1.262	.284
15. Product - Sweet	4.12	4.18	4.18	.428	.652
16. Product - Soft	4.31	4.25	4.33	.465	.658
17. Product - Healthy	3.64	3.60	3.60	.069	.934

user and environment friendly (ranked 14 and 15). It is not certain whether the fact that bahulu is considered traditional food and being sold by traditional sellers may have something to do with the responses found in the study. The study also found that product taste which is represented by bahulu's sweetness and freshness to not as highly ranked in importance (ranked 9 and 11 overall) by the consumers. This is different from the keropok lekor study finding by Omar *et al.* (2011) whereby product taste was found to be the main reason for consumer's purchase of the traditional food. If one investigates further, it can be seen that amongst product's attributes, both are ranked lowest. They are surpassed by other attributes like softness, colour, aroma and cleanliness.

Some similarities and slight differences can also be seen from the mean value ranks of each of the three consumer groups. For example, similarities are found in how all three groups from Pulau Pinang, Perlis and Kedah agreed on the importance of halal logo/certification which has been ranked first; or agreeing that it is not important for bahulu to be marketed or promoted as a healthy food in the marketplace. Only slight differences can be noticed on the ranking made by the three consumer groups (e.g. healthy food is ranked last for both Penang and Kedah consumers but not for Perlis who ranked it at 16<sup>th</sup> position). It is surprising also to find consumers to be more

concerned about halal issue rather than the food price (variation in price range) for all the three states. The results are similar as shown in the overall evaluation.

While the overall mean values and attribute ranking provide the descriptive scenario of the bahulu evaluation from all consumers surveyed, another test, i.e. One Way Analysis of Variance (ANOVA) was carried out on consumers' evaluations of the 17 bahulu components to find out whether the bahulu components' importance will affect consumers in Pulau Pinang, Perlis and Kedah differently. Similar to the descriptive analysis carried out earlier, the ANOVA analyses on all 17 components show no significant difference amongst the consumers from the three states (at the  $p < .05$  level of significance for the three groups). This indicates that the three groups evaluated the bahulu components' importance quite similarly, suggesting that they may come from a homogenous market of consumers rather than heterogeneous. The ANOVA results are displayed in Table 3.

### Conclusion and implication

In conclusion, the most important attribute to consumers is the halal label as they need to find it on the bahulu that they purchased. Other components that are related to the traditional food product's

characteristics like color, softness and aroma are also perceived to be important. Labels that provide consumers with information about manufacturer's address, manufacturing and expiry dates of the food, as well as ingredients and nutrients are evaluated more important than other aspects like branding, packaging and health. Although consumers who participated in the study came from three different states in Malaysia, the similarities in their evaluation led to the study's conclusion that they are from a homogenous group rather than heterogenous market.

The findings imply that strategizing to segment consumers into heterogenous markets would have no effect on how they evaluate the food. Instead, for the BMEs, the focus should be on improving the components identified in this study particularly the halal aspect. Improved components could help satisfy bahulu consumers' needs; so, higher consumer acceptance of the food can be achieved in the marketplace. The findings have provided some insights on how bahulu consumers evaluate the food which are helpful in the planning and the implementation of the BME's marketing mix strategies. To find out whether bahulu consumers in Malaysia are homogenous or otherwise, future studies can focus on consumers from other states in Malaysia and/or on foreign consumers. Similar study can be applied to other traditional snack food products like rempeyek, banana chips, etc. or to other food product categories. Undertaking a qualitative approach (e.g. using focus groups, in-depth interviews, etc.) is recommended for in-depth investigation of how consumers acted or reacted on the many aspects of food products too. The benefit of qualitative approach is that it enables researchers to explore in-depth the what, why, where, when, who and how behavior of consumers that are important to be understood by food industry and entrepreneurs like the BMEs.

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