

Determinants of Consumers Purchasing Behavior for Rice in Malaysia

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Abstract

The goal of this research is to examine the determinants affecting the consumer's purchasing behaviour for rice in Malaysia. It was based on a survey of rice consumers in the Shah Alam City of Selangor, West Malaysia. From the analysis the variables of great importance that affect the purchasing behavior are the marital status, gender, age, occupational status, head and household number. The results also indicated that rice attributes such as flavor, taste of cooking, price, and location also affect their choices of the brands available in the market. The majority of the consumers however, preferred to purchase local white rice instead of those imported from overseas. They were loyal to the brand and the results pointed to the needs of producing high quality local rice and to develop the pricing and marketing strategies.

Keywords: Rice brands, consumer, purchasing behavior, attributes, preferences.

INTRODUCTION

Consumer preference for rice varies from country to country. Usually they were very concerned about the quality and price of the commodity when they made a purchase (Diako et.al 2010). In America consumers preferred rice which were associated with specific cooking types and menu as well as the processing characteristics. Whereas, in the Middle East they mostly favored a long grain and well-milled rice with strong aroma compared to the Europeans who tend to prefer the long grain with no scent. The Japanese on the other hand gave high priority on the well-milled, very recently processed, short-grain Japonica rice. The well-milled and long grain Indica rice however, were preferred by consumers in Thailand (Lancon et. al. 2003, Galawat and Yabe, 2010, Unnevehr et.al. 1985, Suwannaporn and Linnamenn, 2008). In contrast, the imported rice became a consumer choice in Nigeria due to their cleanliness and swelling capacity, taste, availability and grain shape. These characteristics of imported rice also are mostly preferred by restaurants and fast food industries to be used in their businesses.(Akaeze, 2010).

Suwannaporn and Linnemann (2008) and Basorun (2008) reported that consumers in Japan, Korea, North China and Taiwan, prefer to purchase rice at low price. There were increasing demand for local rice in these countries as the price was cheaper than imported one. High price will be a factor that prevents consumers to purchase certain brand of rice that they preferred. The dominance of the demographic factors were also highlighted in a number of studies. Consumers who lived in urban area and had high standard of living, high income and education, tend to purchase rice of high quality based on their nutritional content (Tomlins et. al. 2005). Whereas Kassali et. al (2010) found that income, age of the consumers and frequency of purchase were the important factors that influence household food consumption. Consumers tend to make a purchase at the retailers closer to their homes because it makes them easier to get the rice and will purchase whichever rice brand that is available in the market. (Azabagaoglu and Gaytancioglu, 2009).The consumers in Brunei tend to purchase an imported rice rather than local one due to its availability in the market and family inherent where consumers have been using imported rice since childhood (Galawat and Yabe, 2010). The effects of the marketing factors such as branding, advertising and promotions were also being discussed in the studies conducted by Hogg and Kalafatis (1992) and Opoku and Akorli (2009). They reported that consumers from United States, for example, had a strong response on brand name and packaging of rice. Whereas consumers in Ghana prefer to purchase imported rice brand rather than the local ones.

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Wong et. al (2010) suggested that in future, in order to cope with the demand and changing lifestyle and consumer preference, rice should be made available in different forms: pre-cooked or instant rice, easy-to-cook and ready meal, and various packaging. In addition it was also reported that changes in lifestyle and time constraints on women would also affect the purchasing behavior on rice brands in the market. Some of them may prefer to eat outside rather than preparing cook at home. (Abdullah Farah *et al*, 2011).

In Malaysia despite of the increase in population growth, the national requirement for rice has declined around 15% from 1995 to 2005 (Warr.et al.,2008). The reasons for the decline are primarily triggered by the global food crisis at the end of 2007 and for the whole year of 2008, exacerbated by the burgeoning urbanization and rising income where many Malaysians have opted for other substitutes like wheat and bread (Norimah et al., 2008). Although the consumption of rice is declining, rice is still the most preferred food and important meal in Malaysian's menu. Most Malaysians prefer to take local rice due to their cultural eating habits.(Wong, 2004)

Different types of brands compete in the Malaysian rice market. There are many types of rice brands in the market today such as *Jasmine*, *Cap Rambutan*, *Cap Ketupat*, *Jati*, *Sunwhite*, and *Mogul Faiza*. These brands differ from each other based on the physical characteristics, quality, and the price offered. Although there are many brands available, information on the level of consumer preferences and their purchasing behavior are limited in this country. Thus, this study was undertaken with the objectives of examining the factors affecting consumers preference for the rice brands, their purchasing behavior and to explore their consumption patterns.. The findings have several important policy considerations especially pertaining to the production and the marketing strategies to be adopted in order to ensure that the products are able to sustain in the markets.

METHOD

The primary data were obtained by distributing the questionnaires to the customers at the two largest hypermarkets in Selangor areas in Malaysia, that is Giant and Tesco. One hundred customers have been randomly selected to be the respondents by using a convenient sampling method. The data were collected from December 2010 until February 2011. The set of questionnaire had three sections. Section A consisted of demographic profile of the consumers such as age, gender, educational level, income, and employment status. Section B dealt with 16 questions regarding the preference and consumption pattern of eating rice which contained questions like how often they do purchase rice, size of rice packaging they purchase, and rice brand that they prefer to buy while Section C discussed on the marketing of rice by using a rating scale. The Likert scale had been used to examine how strongly consumers agree or disagree with statements where each statement with 1 indicates "strongly disagree" and 5 is "strongly agree", while 2, 3 and 4 signify "strongly disagree" to "strongly agree".

RESULTS AND DISCUSSION

The respondents in this survey consisted of 17 males and 83 females (Table 1) which reflected women were mostly responsible for the household and food purchase. The majority of the respondents involved in this survey were 93 percent Malays, followed by Indian (5 percent) and Chinese (2 percent). The majority of the respondents were in the category of 33 – 54 years old (48%), with a mean age of 38.8 years. Out of 100 respondents surveyed, 87 percent were married, 86 percent were employed and 49 percent of them are working with the government. It was discovered that 81.7 percent had a spouse who was also employed. Most of the respondents (60%) earned a monthly income ranging from RM 1500 to RM 3000, with an average of RM 2123.34 per month. About five percent had attained primary education, 44 percent at the secondary school level, 22 percent at the certificate and the diploma while the remainder, 29 percent completed university education. The majority of the consumers (56%) had an average household size between 4 – 6 people.

Figure 1 reveals the rice brands that were available in the area of study (Tesco and Giant Hypermarket, Shah Alam). The results indicated that about 34 percent of the respondents purchased *Jasmine*, followed by *Faiza* 24 percent, and *Jati*, 23 percent while the remaining (19 percent) purchased *Cap Rambutan* as their preferred brand.

a) Purchasing behavior of consumers on rice

There were variations in the purchasing behavior of the consumers surveyed. Table 2 shows the rice purchasing behavior of the consumers that are classified and grouped under; frequency of purchasing, location of purchase, package preference, and quantity of rice purchased. The results indicated that the majority of the consumers (70%) bought rice every month. Generally, housewives would purchase rice for consumption once in a month when they spent money and time for grocery items.

In fact, many of them were working housewives with hectic schedule in the workforce. Also, the majority of respondents (68%) preferred to purchase only one pack when they purchased rice. This study revealed that the majority of the respondents preferred to buy rice with the smaller packaging size which is 5kg (49%). In addition to that, identifying the retail stores or markets are important in the marketing strategy as it may influence the consumers' preferences and purchasing behavior on the rice brands. A total of 53% of respondents preferred to purchase food from supermarket rather than the mini market (15.9%) and retailers (19.8%). It was due to the location of these stores that were proximate to their homes and the availability of various kinds of products which gave them more options and greater choices.

The relationship of the demographic factors with the purchasing behavior of the respondents was analyzed using Chi-Square Tests (Table 3). The results revealed that gender, marital status, working status and age of respondents had significant relationship with the frequency of purchasing rice. Whereas, the number of the households to a large extent determined both the frequency and amount of rice that would be purchased by the household. Normally, the larger the household size, the bigger the quantity of rice consumed as opposed to those with smaller one. This is because the large households would have less per capita income and would consume more on cheaper local rice compared to the smaller one.

b) Factors affecting consumers' preferences on rice brands

There are many factors that can affect consumers' preference on rice brands. However, this study only concentrates on gender, race, monthly income, age, and number of households. Table 4 shows the cross-tabulation on rice brands and demographic variables which are gender, race, monthly income, number of households and age of respondent. Chi-square Tests had been used to see the relationships between these variables and rice brand preferred. However, only gender showed a significant relationship with the rice brands (Table 5). This indicated that women were responsible in the buying decision process and preferences of the rice brand in their households.

c) Marketing factors of rice brand preferred

Consumers were asked five opinion questions regarding rice marketing. The questionnaire comprised of five point- Likert scale (closer to 1 is definitely disagree, closer to 5 is definitely agree). The results are reported as follows; when it examined the averages in general, there was a tendency towards the mid-score (Table 6). The reason underlies that the amount of respondents who agreed and those who did not agree was close in value and some opinions were recorded as neutral. For this reason, the scores for each opinion were evaluated through frequency distribution.

The marketing activities apparently had impacted on consumers buying decision making. More than half of the respondents remarked that price was the most important factor in choosing which brand to purchase. On the question whether the brand name was important or not, the majority of the respondents gave affirmative answers. The majority of the respondents responded neutral to the question whether advertising influence them to purchase rice or not. Although there were varied advertisements on the rice brands in the studied area, the respondents claimed that these advertising campaigns did not significantly influenced them to purchase that particular brand since they were already brand loyal. However, the majority of respondents stated that the packaging of the rice brand played an important role to easily attract and persuade them to purchase the product. According to them, packaging of rice brand can link with the quality. Thus, the packer of the particular rice must be more cautious in changing the grade and quality of the brand. Whereas, the majority of participants also mentioned that the availability of the rice in the market was also of important determinant in their decision making. The brand which was easily located in all stores, especially the provision market would be highly preferred.

d) Consumption pattern of eating rice

Rice is the main staple food being consumed by most people in Malaysia. The results of the survey indicated that most of the respondents were regular consumers on a daily basis (Figure 2). More than half (53%) of the number of respondents consumed rice once a day, normally during lunch hour. This was because they wanted to stay energetic for the whole day. It was then followed by the consumption of rice twice a day (45%) where rice was taken during lunch and dinner, and the remainder 2%, three times a day. The small amount of rice intake on daily basis implied that there was a decreasing trend in Malaysian food consumption for this commodity. This outcome was in line with the similar findings obtained by Warr *et al.* (2008) and Norimah *et al.* (2008). Rice is used in a wide range of food products in Malaysia, and the most common includes plain rice, *nasi lemak*, fried rice, *nasi impit/ketupat*, and porridge (Figure 3).

When the respondents were asked on which particular meals contained rice that they consumed, about 42.4 percent responded that they ate plain rice, followed by fried rice (21.2%), and *nasi lemak* (20.3%). Fried rice and *nasi lemak* became the preferred meals eaten by respondents since these meals were popular among Malaysians especially during breakfast. (Figure 4). The other preferred meals were porridge, *nasi impit*, *ketupat*, *nasi kerabu* and *nasi tomato*. While *Nasi beriani* and *lemang*, are normally prepared during festive, ceremony seasons and certain occasions only.

The various types of rice available in the market gave them more options to choose and purchase (Figure 5). More than half (58.6%) of respondents said they preferred to purchase local white rice while 19.8% of the respondents chose to buy fragrant rice and Basmathi rice (14.4%). The fragrant rice is increasingly preferred due to the odor and its aroma when the rice is cooked. Basmathi, on the other hand, contains less starch, non-stickiness and organically cultivated makes it preferred rice for special occasion and for those who are health conscious.

There were various reasons why they preferred to purchase certain rice brand in the market (Figure 6). Generally, the rice attributes become the main reasons and normally used to judge rice quality and taste. Respondents would likely to purchase a particular type of rice largely due to its flavor and taste of cooking (30.6%). Price (19.7%) was also becoming the important factor for respondents to concern during purchasing rice. Apart from the flavor and taste of cooking, the respondents also demanded that rice should also be well-cooked (17.2%), and had good features including less starch content with fine aroma (14.0%).

The results also revealed that majority of respondents (70%) preferred to purchase local rice (Figure 7). Almost all the household respondents reported that they preferred the latter due to its cheaper price and easily available at retail outlets. Whereas, about 14 percent of respondents preferred to purchase both locally produced and imported rice. While, another 13 percent remarked that they preferred to purchase imported rice because of its high quality and grade.

SUMMARY AND CONCLUSIONS

Consumers' purchasing behavior differed greatly in this study. Demographic factors, quality and rice attributes, location and accessibility to the marketing outlets, price, packaging as well as branding were the determinants that need to be focused in the production and marketing of rice. The majority of the consumers preferred to purchase local white rice in small packs over the imported one. Producers as well as distributors need to comprehend these situations in order to meet the needs of their consumers notwithstanding the marketing efforts, rice brand is a noteworthy attribute that consumers are looking for. The most popular brand was the *Jasmine* and it seemed that they were loyal to the brand in this study. They will thrust the brand that concurs with quality and likely to increase the volume of purchase. The findings from this study also are useful for the producers and distributors to strengthen their rice brand and to segment their target market. Besides that they should label information on the rice packaging to inform the consumers which cuisine is suitable for each type of rice to avoid them from purchasing the wrong one.

Table 1: Socio-economic characteristics of rice consumers in Shah Alam, Malaysia.

Characteristics	Category	Number	%
Gender	Male	17	17.0
	Female	83	83.0
Race	Malay	93	93.0
	Chinese	2	2.0
	Indian	5	5.0
Age	22 – 32 years	40	40.0
	33 – 43 years	28	28.0
	44 – 54 years	20	20.0
	55 – 65 years	12	12.0
Monthly income	Less than RM 1500	30	30.0
	RM1500 – 3000	60	60.0
	RM3001 – 4500	8	8.0
	RM4501 – 6000	2	2.0
Education	Primary school/ Standard 6	5	5.0
	Secondary school/PMR/SPM/STPM/Others	44	44.0
	Certificate/ Diploma	22	22.0
	Degree/ Master/ Ph.D	29	29.0
No. of Household	1 – 3	38	38.0
	4 – 6	56	56.0
	7 – 9	6	6.0

Table 2: Purchasing behavior of consumers on rice brands

Variables		Cap Rambutan	Jasmine	Faiza	Jati	Total
Frequency of purchasing rice	Every week	1	2	1	1	5
	Every month	14	22	17	17	70
	Rarely	4	10	6	5	25
Rice purchased each month	1 pack	10	25	15	18	68
	2 packs	4	7	5	4	20
	Others	5	2	4	1	12
Size of packaging	5 kg	6	19	11	13	49
	10 kg	11	14	12	9	46
	15 kg	1	2	1	0	4
	Others	1	0	0	1	2
Location of purchase	Retailers	5	6	6	8	25
	Mini market	2	6	4	8	20
	Supermarket	11	20	11	11	53
	Hypermarket	2	13	9	4	28

Table 3: Result of Chi-Square Tests on demographic factors and purchasing behavior

Variables	Groups	N	P	Decision
Frequency of purchase	Gender	100	.011	Significant
	Marital status	100	.000	Significant
	Working status	100	.022	Significant
	No. of households	100	.023	Significant
	Age	100	.016	Significant
Amount of rice purchase	No. of households	100	.001	Significant

Table 4: Cross-tabulation on rice brands and demographic variables

Variables		Cap rambutan	Jasmine	Faiza	Jati	Total
Gender	Male	5	2	2	8	17
	Female	14	32	22	15	83
Race	Malay	16	32	22	23	93
	Chinese	1	1	0	0	2
	India	2	1	2	0	5
Monthly income	Less than RM1500	5	9	7	9	30
	RM 1500 – 3000	10	23	15	12	60
	RM 3001 – 4500	3	2	1	2	8
	RM 4501 – 6000	1	0	1	0	2
No. of households	1 – 3	5	16	7	10	38
	4 – 6	12	17	15	12	56
	7 – 9	2	1	2	1	6
Age	22 – 32 years	4	15	10	11	4
	33 – 43 years	4	10	8	6	4
	44 – 54 years	7	7	3	3	7
	55 – 65 years	4	2	3	3	4

Table 5: Summary on Chi-Square Tests on rice brands and demographic factors

Variables	Groups	N	P	Decision
Preference	Gender	100	.014	Significant
	Race	100	.479	Not significant
	Monthly income	100	.696	Not significant
	No. of households	100	.646	Not significant
	Age	100	.423	Not significant

Table 6: Means of consumer preferences on marketing factors

Marketing factors	Means ^a	Standard Deviation
Price is an important factor for me while purchasing rice	3.97	.949
Brand name is very important while purchasing rice	3.69	.910
Advertising influence the purchasing of rice	2.98	1.197
It is important for the packaging of rice to be attractive	3.90	.852
Availability of the product in the market	4.23	.884

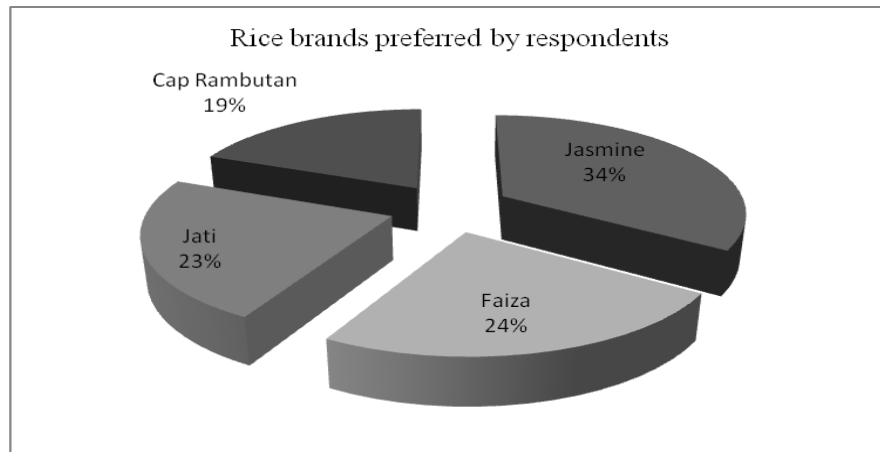


Figure 1: Rice brands preferred by respondents

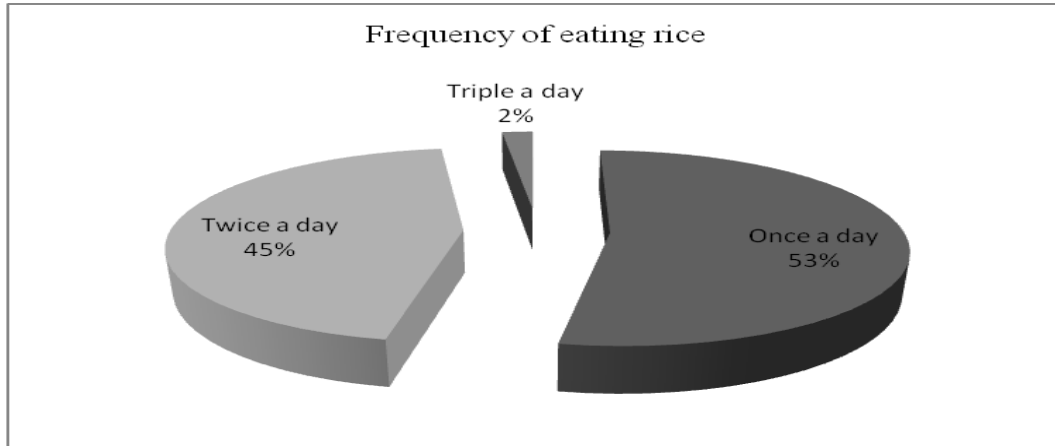


Figure 2: Frequency of eating rice

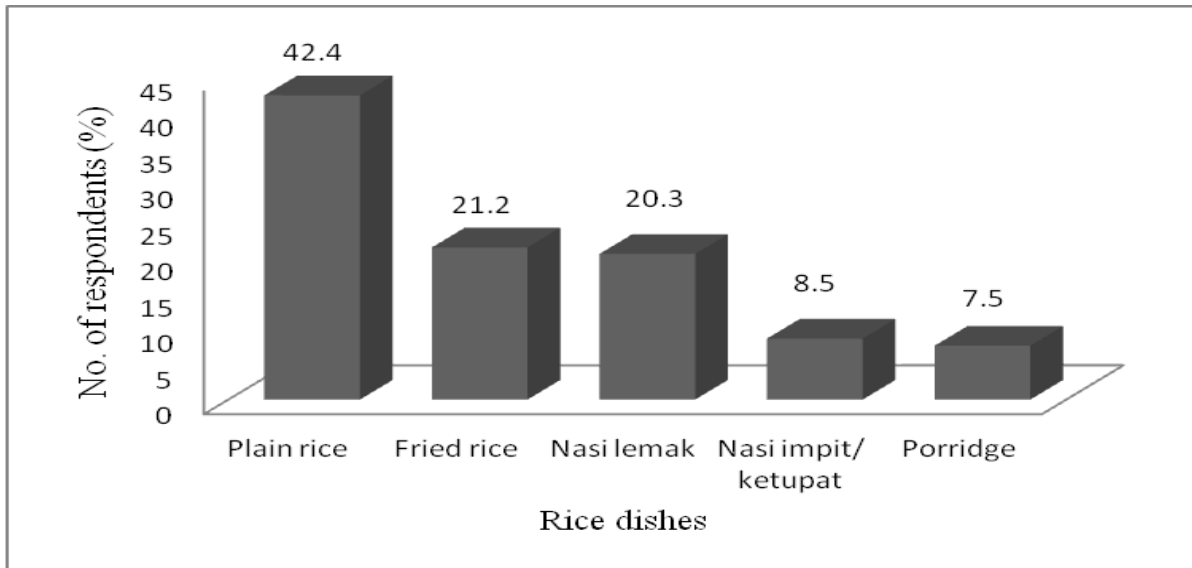


Figure 3: Common rice dishes eat by respondents

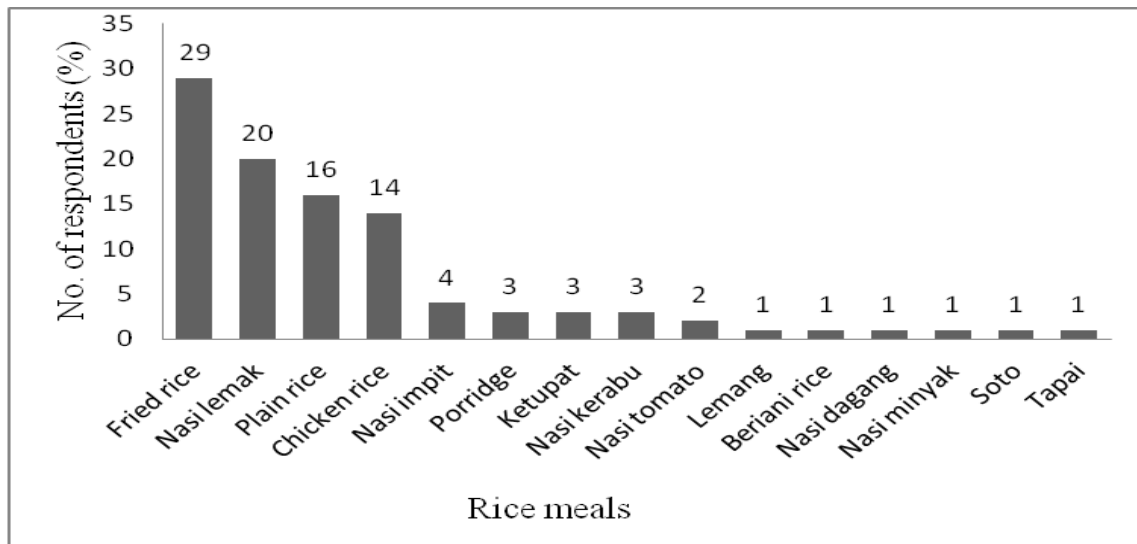


Figure 4: Favorite rice meals preferred by respondents

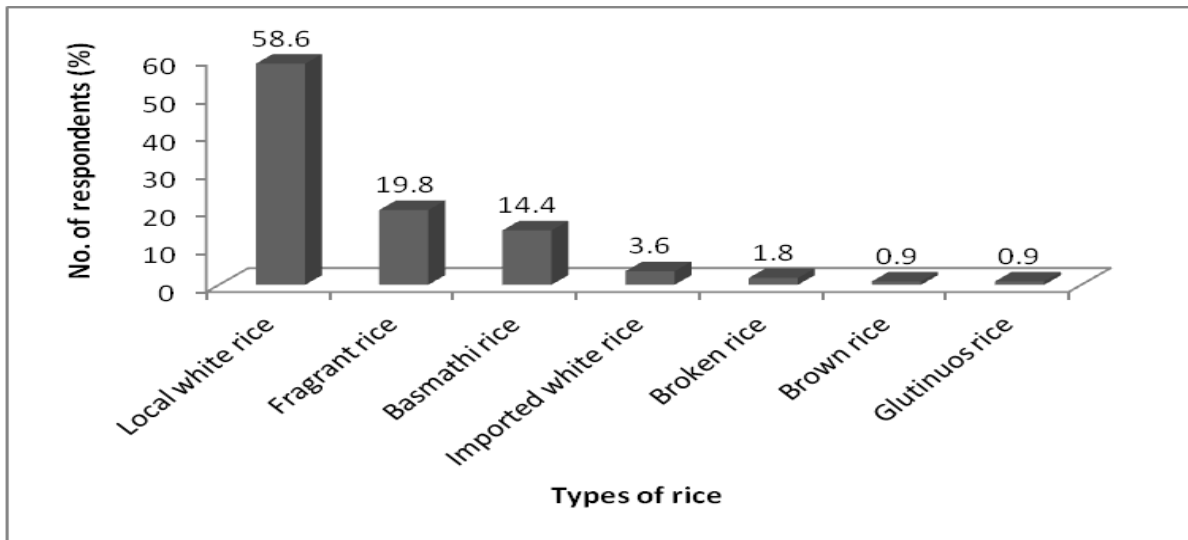


Figure 5: The types of rice preferred by respondents

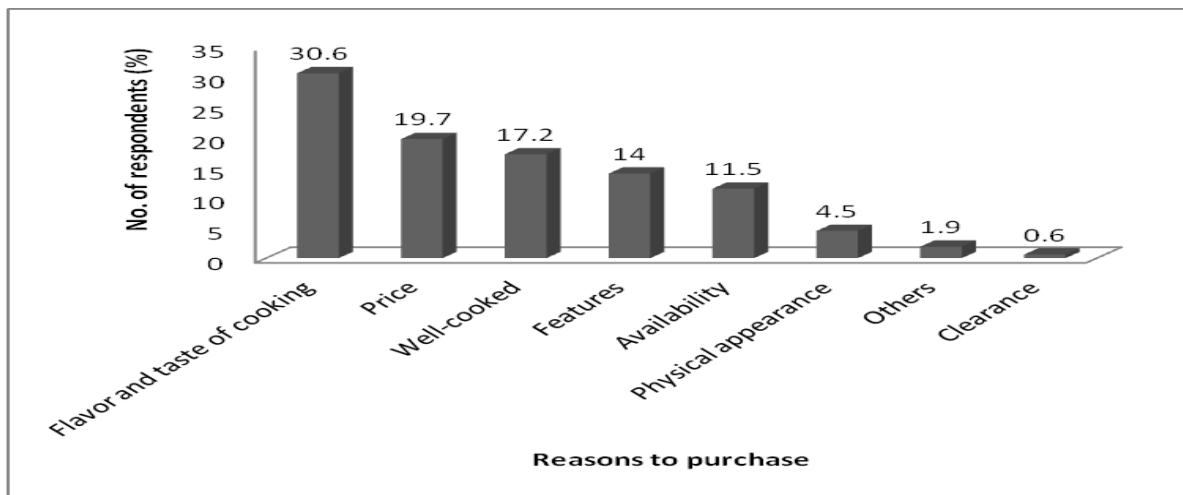


Figure 6: Factors of great concerns when purchasing rice

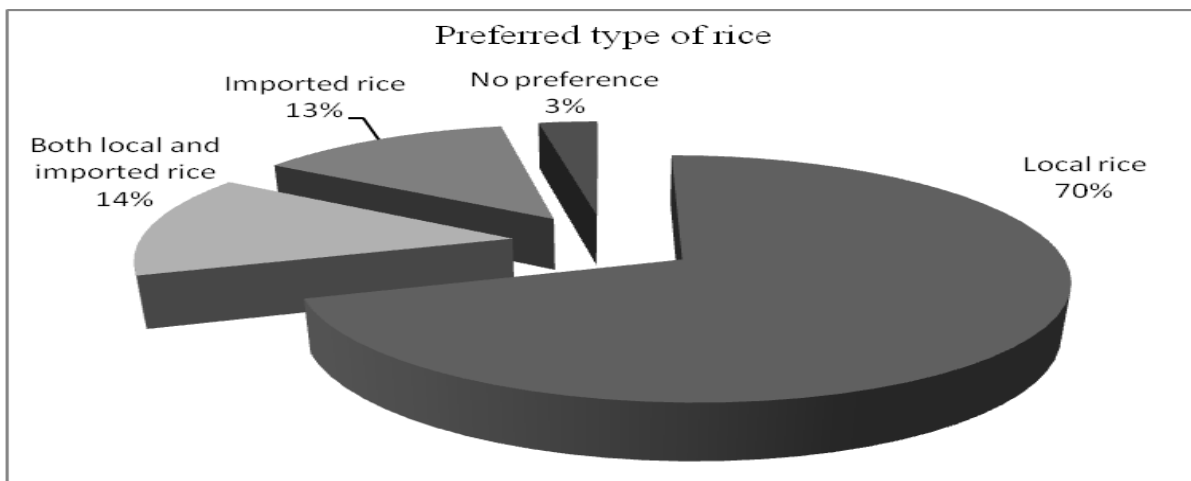


Figure 7: Preferred origin type of rice

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