

Consumer Rice buying behaviour in Hambantota District, Sri Lanka

^{1*}Senarath S.A.M.H and ²Samaraweera G.C.

^{1,2}Department of Economics and Extension, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Matara, Sri Lanka.

***Corresponding author email:** samhsenarath@gmail.com

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ABSTRACT

Rice is a major meal in Sri Lankans diet. Different types of rice and various attributes of rice are existing for peoples' consumption in Sri Lanka. Consumer rice preference can be described under the generally quality characteristics of rice. Also experience of consumers is one of major factors that can be affecting for consumer preference. Therefore, this study was conducted to identify consumer's preference for rice and rice buying behaviour. Four different rice types raw (red and white), parboiled (red and white)

were considered for this study. Also some of quality attributes; price, appearance, colour, grain size and rice type which affect for consumer buying process were used for this study. A questionnaire survey was carried out by using a purposively sample of 100 consumers in Hambantota administrative complex by considering the easy access to respondents with different occupation categories. Data analysis was done by using Preference ranking method. Chi-square test used for identify significant of the quality

attributes of rice. Red raw rice was the most preferred rice type. Rice type, colour, appearance and grain size were significant and price was insignificant.

Key words: Consumer preference, behaviour, rice colour, rice grain size, degree of milling, price of rice, appearance of rice

INTRODUCTION

Rice (*Oryza sativa L.*) is the one of oldest agricultural crop in Sri Lanka (Department of Agriculture, 2008-2010). Present rice production in the nation can be fulfilled the average annual consumption of rice. So it assumed that annual rice consumption has already achieved self- sufficient status. Rice is the staple food and most convenient meal for almost most of Sri Lankans. The demand for different types of rice may change with social economic characteristics such as age, gender, income, house hold number, education level, nationality, race and socioeconomic status, etc [1]. However, different occupation categories such as public sector worker, private sector worker, farmer, elementary occupant (Labour, odd job worker), self-employed and un-employed were used for this study due to rice buying behaviour is in related with income of consumers. Although, it is impossible to know consumers' real income because they may not tell about their true income. Quality attributes of rice are described under the grain length, stickiness, aroma, texture, flavour and price. Cooking quality, outlook, palatability and cleanliness are also considered as quality attributes of rice. Mainly different types of rice are available but in this study, preference of consumer for raw rice and parboiled rice are considered. Based on rice colour, four different rice types; Red-Raw rice, White-Raw rice, Red-Parboiled rice and White-Parboiled rice are available. Mainly some of quality attributes of rice such as price, appearance, rice colour, rice grain size and rice type were considered and that affect for consumer buying process of rice. In this study, consumer how fulfilled their rice requirement, frequency of rice buying and five quality attributes of rice such as price, appearance, rice colour, rice grain size and rice type were considered. Also identify main three attributes which can be affecting for consumer buying process based on occupation. This study is important to ascertain the buying behaviour of consumer.

MATERIALS AND METHODS

Hambantota Administrative Complex where several numbers of offices are housed in same premises was selected considering easy access to the respondents with different occupation categories.

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Purposively sampling method was used as survey design. A purposively sample of 100 respondents was selected in Hambantota administrative complex from inside workers and after questionnaire screening, 100 questionnaires were obtain from the survey. In order to achieve the objective of the study the relevant data and information were collected though primary and secondary sources. Primary data were obtained by distributing the questionnaires. The questionnaire consists of consumers' socioeconomics characteristics such as age, gender, educational level, household number, occupation and monthly income. But occupation categories were considered under this study. Also it includes of consumers' behaviour regarding rice buying process and 6 questions are consisted. Questions were included how they fulfilled their rice requirements from own production or buy from market. How often they do purchase rice and what are the quality attributes of rice, they considered when purchase. Secondary data were collected from related journals, articles, books and from internet. Data analysis was done by using and applying Preference Ranking Method. In preference scale analysis, the score assign to the rank order of preference was in the ratio 3:2:1 for the 1st, 2nd and 3rd ranks respectively. The final score for attributes was given,

$$\frac{(3f_{i1} + 2f_{i2} + 1f_{i3})}{6} = \text{score}$$

Where, f_{ij} ($i=1,2,3 : j=1,2,3$), is the frequency for rank j corresponding to reason number i [2]. The score calculated for each five reason and selected major three attributes which are having first three high scores. Chi-square test was used for identify significant of the five quality attributes of rice. Bar chart and pie chart also were used.

RESULTS AND DISCUSSION

Respondents with different job categories were shown by Figure 1. The analysis was done by under occupation categorizes, public sector, private sector, agriculture sector, self-employed, elementary occupant and un-employed. The majority respondents (35%) were public workers. There were variations in the rice requirement fulfilled pattern. Respondents fulfilled their rice requirement by mainly three ways; from their own product, basically from own production and occasionally from the market. Figure 2 showed that the ways of fulfilled rice requirement by consumers based on occupation categories. The results indicated that majority of Self-employed (69.2%) mainly fulfilled their rice requirement from only market. Most respondents of un-employed fulfilled rice requirement occasionally from market. Next analysis was frequency of buying rice of respondents

under different occupation category of fulfilled rice requirement only from market (Figure 3). In this analysis, farmers were not considered due to farmers was not fulfilled rice from only market also they had their own production. Four frequencies; once a week, once two weeks, once a month and other were considered for this study. The considerable percentage (about 68%) of self-employed and un-employed has for once a week frequency. In elementary occupant has same frequency for once a week, once two weeks and once a month. Also un-employed has zero percentage for once two weeks and once a month. Also self- employed has zero percentage for frequency of once two weeks. Under next analysis, the factors which affect for rice buying process were considered (Table. 1). In order to analysis of five factors which affect for buying process and consider about calculated scores. In this analysis first three preference ranked order was concerned [3]. The results are corresponding to factors (Table 1) which were concerned by people. According to the calculated merits rice type has highest merits and it is the first factor which is concerned by people. Rice type was the first considered factor. Price of rice was the second considering factor. Rice colour was the third factor that can be affecting for consumer buying process [3]. Chi-square test had been used to identify significant factors. Rice colour, rice type, rice grain size and rice appearance were significant and price was not significant. Rice colour (Chi-value, 17.077; $p: 0.05 > 0.001$), Rice type (Chi-value, 73.077; $p: 0.05 > 0.000$), Rice grain size (Chi-value, 71.577; $p: 0.05 > 0.000$), Rice appearance (Chi-value, 24.154; $p: 0.05 > 0.000$) were significant. But rice price were not significant (Chi value, 3.846; $p: 0.05 < 0.279$). It was important to note the when consumer buys rice, price was insignificant factor and rice colour was significant. This finding embellished past literature [4]. Most significant factors were rice colour, rice type, rice grain size and rice appearance. The next point to be analyzed was, most preferred rice type among main four different rice types (Figure 4), Such as Red Raw Rice, White Raw Rice, Red Parboiled Rice and White Parboiled Rice. Figure 5 gave the classification for consumers' most preference rice type among four type of rice. Red Raw Rice was the most preferred rice type in each occupation categories. Farmers and Un-employed had 100% preference for Red Raw Rice. In Elementary job occupant had the highest preference for White Raw Rice. Any occupation category were not gave any preference for parboiled rice. Also Red Raw Rice was the most preferred rice in Hambantota district.

CONCLUSION

Consumer preference for rice differed greatly in this study. Red Raw Rice was the most preferred rice type in Hambantota district. By studied five factors, rice colour, rice type and price were the

major three factors which were affecting for buying process. Among the major three factors, rice colour and rice type were significant and price was insignificant. Rice appearance and rice grain size were also significant. The findings from this study are useful for the rice producers from Hambantota district to recognize to consumer preference. Also it will inspire to approach to rice variety improvement and technological improvement in Hambantota district.

REFERENCES

- [1] Tengpongsathon, K, Nanthaicahi, K, Mason, R, Rimkeeree, H., 2006. Consumer preference of rice-based products : cross cultural study between Thailand and Australia. *Journal of Agricultural Technology*, 2(2): 137–153.
- [2] Breckenridge, C., 1979. Rice grain evaluation in Sri Lanka. *Proceeding of the workshop on chemical aspects of rice grain quality, International Rice research institute, Manilla*: 175–181.
- [3] Breckenridge, C, Hussein, S, Kularatne, A.G, Abeyasekera & Nadesan, M.T., 1979. Survey to determine Rice Consumer Preference in the Kandy District. *Tropical Agriculturist*, Vol. cxxxv (1979)
- [4] Walisinghe, B R & Gunaratne, L.H., 2012. Consumer Preferences for Quality Attributes of Rice : A Conjoint Analysis. *Sri Lankan Journal of Agricultural Economics*, 10: 19-30.

Others references:

- Agriculture and environmental statistics of Sri Lanka (2010), department of census and statistics, Sri Lanka. Available:
<http://www.statistics.gov.lk/agriculture/Paddy%20Statistics/PaddyStatsPages/SelfsufficiencyRateofRice.html> . Date accessed: 29 September 2016
- Anang, B.T, Adjetey, S.N. & Abiriwe, S.A., 2016. Consumer Preferences for Rice Quality Characteristics and the Effects on Price in the Tamale Metropolis, Northern Region, Ghana. *International Journal of AgriScience*, 1(2): 67–74.
- Article of rice quality factors [Online], Available link:
<file:///E:/42%20Research/references/Reference%20articles/google%20articles/Quality%20factors%20-%20Ricepedia.html> Date accessed: 30 August 2016
- Article of rice sector development in Sri Lanka (2008), Department of Agriculture, [Online], Available:
http://www.doa.gov.lk/index.php/en/images/stories/site/PDF/Projects/AWRN/Rice_AWRN.pdf Date accessed : 25 September 2016

- Asante, M.D. et al., 2013. Farmer and consumer preferences for rice in the Ashanti region of Ghana : Implications for rice breeding in West Africa. *Journal of Plant Breeding and Crop Science*, 5(12): 229– 238.
- Azabagaoglu, M.O. & Gaytancioglu, O., 2009. Analyzing consumer preference to different rice varieties in turkey. *Agricultura Tropica ET Subtopica*, 42(3): 118–125.
- Metropolis, T. & Region, N., 2016. Consumer Preferences for Rice Quality Characteristics and the Effects on Price in the. *International Journal of AgriScience*, Vol. 1(2): 67–74.

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Figure 1: Respondents with different job categories

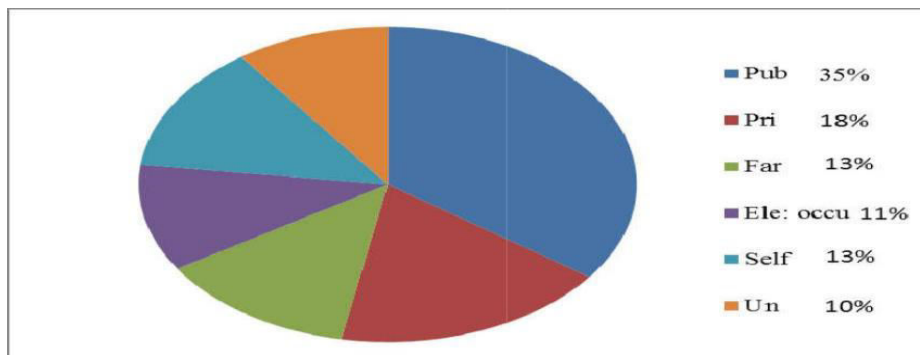


Figure 2: The ways of fulfilled rice required by respondents with different job categories

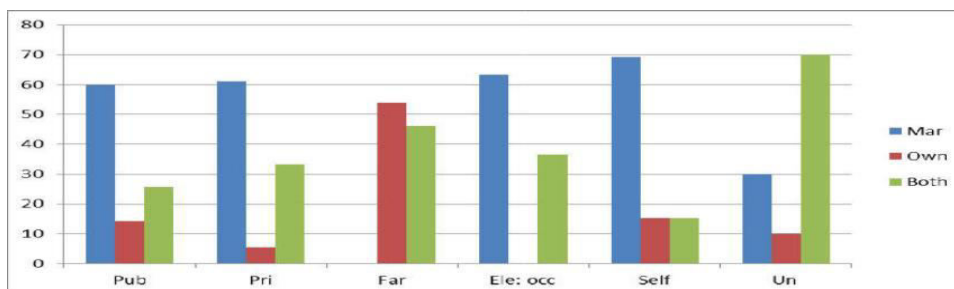


Figure 3: Frequency of buying rice of respondents under different occupation category of fulfilled rice requirement only from market

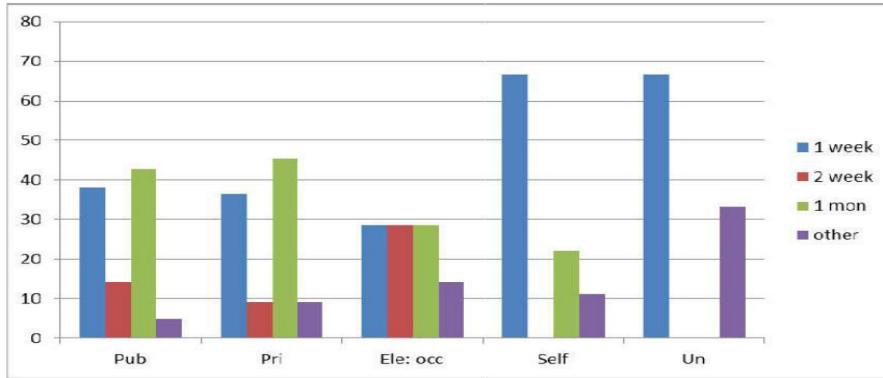
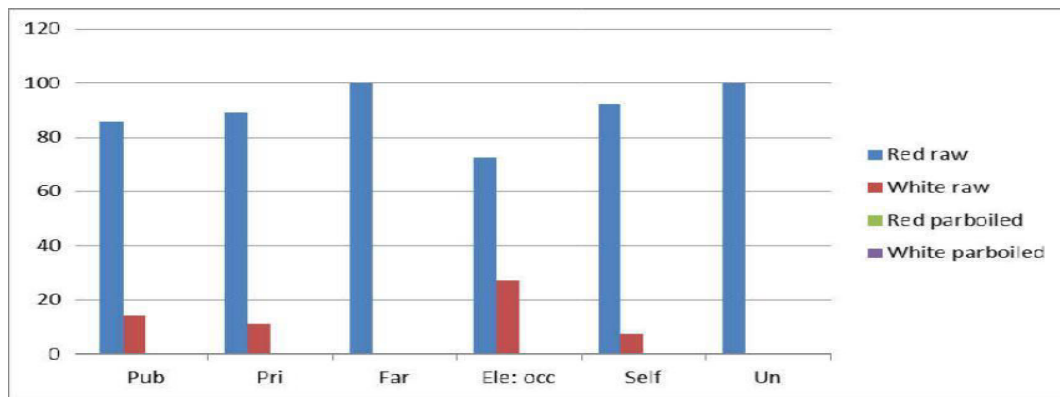


Figure 4: The most preferred rice type under different occupation categories



LIST OF TABLE

Table no. 1: Priority of the factors that affect for rice buying process

Factor	Rank Order		
	1 st	2 nd	3 rd
Price	16	33	14
Appearance	02	17	20
Rice type	70	13	04
Rice grain size	00	03	12
Rice color	02	23	39