



INVESTIGATION OF FACTORS THAT AFFECT FRESH MILK CONSUMPTION OF CONSUMERS IN THE KALUTARA DISTRICT OF SRI LANKA

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INTRODUCTION

Fresh milk is considered as one of the most popular beverages all over the world. In Sri Lanka it is known to be a highly nutritious liquid food and a much-tasted drink. The balance of carbohydrates, fats and proteins in fresh milk plays an important role in reducing malnutrition especially among infants and all other age groups. Fresh milk is an excellent source of vitamins and minerals such as vitamin D, calcium and phosphorus. Therefore, it improves the bone and teeth health of human beings (Bus and Worsley 2003; Wham and Worsley 2003). Fresh milk consumption reduces the risk of coronary heart diseases and strokes (Shaper et al 1991; Massey 2001; Patumsha 2016). Although, the nutritional and health benefits of fresh milk is higher than powdered milk (Alwis et al 2009; Vidanapathirana 2019), consumption of fresh milk is considerably low in Sri Lanka. It is approximately one percent of the overall milk consumption of the country. The majority of the consumers are used to full cream milk powder (Alwis et al 2009).

Therefore, the present study is carried out to investigate the factors that affect fresh milk consumption in the Kalutara district in Sri Lanka. Initially the Kalutara district was selected for the study since this district produces the lowest amount of fresh milk in the country. Findings of this study will help the policy makers to eliminate obstacles which hinder the fresh milk consumption of the district. Popularization of fresh milk consumption will help to reduce the nutritional poverty among the people in the Kalutara district, improve the livelihood of farmers who produce milk and save the foreign exchange spent annually for the importation of powdered milk.

METHODOLOGY

Five major cities in the Kalutara district, Sri Lanka - namely Kaluthara, Panadura, Mathugama, Horana, and Aluthgama were randomly selected as the study area. Data were collected primarily through a pre tested structured questionnaire distributed among randomly selected 286 consumers who toured local markets and supermarkets in the study area for the purchase of milk and milk related products.

Having considered the relevant literature, demographic factors (gender, age, religion, educational level, income and occupation), attitudinal factors (nutritive value, sensory properties and health issues of fresh milk) and motivational factors (health concerns, availability of milk, price, hygienic properties, marketing properties and quality) of the consumers were considered the most important factors which influence the fresh milk consumption in the Kalutara district.

The questionnaire consisted of three sections to gather information on demographic, attitudinal and motivational factors respectively which may influence on fresh milk consumption of the district. Demographic information was gathered with the help of survey questions, and the respondents were asked to indicate their level of agreement on a 5-point Likert rating scale, to identify the relationship between the attitudinal and motivational factors and the degree of fresh milk consumption.

The Chi-square test was performed to determine the relationship between the factors considered



and the degree of fresh milk consumption. Chi-square with a p-value less than 0.05 was considered statistically significant. The statistical package, SPSS 22 was used to find out the respective relationships between the degree of fresh milk consumption and other different factors.

RESULTS AND DISCUSSION

Demographic factors that affect fresh milk consumption

Table 01 below shows the relationship between demographic factors - namely gender, age, religion, educational level, occupation and income in rupees/month and fresh milk consumption. The results revealed that the demographic factors considered did not significantly ($p > 0.05$) influence the fresh milk consumption, except for the educational level and monthly income of the consumers. Educational level and monthly income of the consumers have a significant ($p < 0.05$) effect on fresh milk consumption.

Table 01 Relationship between demography and fresh milk consumption among respondents

Demographic factor	χ^2	p-value
Gender	0.141	0.707
Age (years)	0.767	0.682
Religion	2.367	0.307
Educational level	27.731	0.000*
Occupation	2.873	0.235
Income (Rs./month)	9.798	0.020*

*Relationship with the fresh milk consumption is significant at 0.05 levels

A Similar result was shown by Alwis *et al.*, through a research carried out in 2009. They concluded that people with higher education and income levels are more interested in fresh milk consumption.

Attitudinal factors that affect fresh milk consumption

Table 02 below shows the relationship between attitudinal factors and fresh milk consumption.

Table 02 Relationship between attitudinal factors and fresh milk consumption

Attitudinal factor	χ^2	p-value
Nutrition	250.30	0.000*
Sensory properties	81.31	0.000*
Health benefit	25.143	0.000*

*Relationship with the fresh milk consumption is significant at 0.05 level.

The results revealed that the attitudinal factors have a significant ($p < 0.05$) effect on fresh milk consumption. This means that nutritive value, sensory properties and health benefits associated with fresh milk play a vital role and have a significant impact on consumer's decisions on their purchase of fresh milk. These results also agreed with the findings of Perera, *et al.* (2018). Accordingly, the sensory properties such as taste, smell and health benefits encourage consumers to purchase fresh milk. However, there are beliefs among consumers about health issues associated with fresh milk consumption - such as asthma and the presence of allergic conditions. However, some researches have revealed that there is no relationship between the consumption



of fresh milk and asthma and other respiratory diseases (Wuthrich et al, 2005 and Sozansca, 2019).

Motivational factors that affect consumption of fresh milk

Table 03 below shows the relationship between motivational factors and fresh milk consumption.

Table 03 Relationship between motivational factors and fresh milk consumption

Motivational factor	χ^2	p-value
Health concerns	74.054	0.000*
Availability	22.123	0.000*
Price	25.143	0.000*
Hygienic properties	14.411	0.006*
Marketing strategies	9.282	0.054
Quality of milk	25.771	0.000*

The results of the study showed that, except marketing strategies all other five motivational factors have a significant ($p < 0.05$) influence on purchasing decision of fresh milk. Similar results were found in Alwis *et al.*, (2009). They showed that reduced price and increased quality of fresh milk increases fresh milk consumption.

CONCLUSION

Educational level and income are two demographic factors that influence fresh milk consumption of the Kalutara district. Consumer attitudes of the study area on nutritive value and sensory properties of fresh milk and health issues associated with fresh milk consumption too determine the consumption of fresh milk. Furthermore the availability of quality milk with hygienic properties and the price of milk affect fresh milk consumption of the district concerned.

Findings of the study are useful for policy makers to develop policies to popularize fresh milk consumption. Moreover the findings can be used to develop marketing strategies to promote sales of fresh milk.

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