

FACTORS INFLUENCING THE CONSUMPTION OF CHEESE IN CHENNAI CITY, INDIA

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Abstract: The study was under taken to analyze the factors influencing the consumption of cheese in Chennai city, INDIA. Chennai is the fourth largest metro city in India. A total sample size of 450 household consumers were selected by simple random sampling from fifteen zones of Chennai city i.e. 30 consumers from each zone. To analyze the factors influencing the consumption of cheese, semi-log functional model was used. The fitted semi-log functional model revealed that the variables like family size, education level of the head of the household, monthly family income, food habit of the household consumer and presence of aged person in the family were found to be significantly influencing the consumption of cheese. Of which, family size, educational status of the head of the household and monthly family income were found to be positively influencing the cheese consumption whereas, presence of aged person in the family and food habit of the family were found to be negatively influencing the consumption of cheese. The study suggested that a producer should analyze the different factors that influence the consumption and to ascertain how he can increase the consumer's utility from his product. These results have the potential to assist in the construction of a market strategy.

Keywords: Cheese, Consumer Preferences, Factors, Chennai City.

INTRODUCTION

Dairying in India has come forth as an important sub-sector with an encouraging growth rate of five per cent over the years. It also plays a significant role in changing the social and economic status of people in India by providing a subsidiary source of income. At present, the leading light of dairy world is India, which occupies the first position in milk production with a production level of 127.90 million tonnes of milk in 2011-12 (Basic Animal Husbandry Statistics, 2013). The per capita availability of milk increased from 130 grams per day in 1950-51 to 290 grams per day in 2011-12 (Basic Animal Husbandry Statistics, 2013). Urbanization is positively correlated with the production and consumption of dairy products. The population of Chennai city was 1.42 millions in 1951 which has increased to 4.68 millions in 2011 as per the census of India (Vinayakam and Sekar, 2013). Chennai is the fourth largest metro city in India and the second oldest corporation in the world. The most

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observable fact in Chennai city was its massive urbanization. Due to this, consumers of Chennai city were highly skewed towards value added livestock products in which dairy products occupy a major space. From the consumer point of view, the price for the dairy products will be fixed, based on quality attributes like colour, texture, fat content, freshness, taste, nutrition and safety. The demand for quality parameters of dairy products at Chennai had undergone a perceptible change in the recent years. Keeping all these factors into mind, the present study was conducted to assess the demand for quality attributes and factors influencing the consumption of cheese in Chennai city.

DATA AND METHODOLOGY

For the present study, Chennai metro city, the capital of Tamil Nadu was purposively selected. The Chennai city has three regions viz., North, Central and South and each region has five zones and thus the city is composed of fifteen zones. From each zone, 30 household consumers were selected by a simple random sampling procedure thus yielding a total sample of 450 household consumers for the study.

Semi-log functional model:

In order to assess the interrelationships between consumption of cheese and the socio-demographic factors, as described by Rani *et al.* (1999), Semi-log function was fitted. The functional form was as below:

$$\ln Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \mu$$

Where,

Y_1 = Quantity of cheese consumed per household per month (in kgs)

X_1 = Family size in consumption units

X_2 = Age of the head of the household - continuous

X_3 = Educational status of the head of the household (0 – If illiterate; 1 – If primary; 2 – If secondary; and 3 – If College)

X_4 = Family income in Rupees

X_5 = Dummy - Hindu religion (1 – If the household is a Hindu; 0 – otherwise)

X_6 = Dummy - Christian religion (1 - If the household is a Christian; 0 – otherwise)

X_7 = Dummy – Presence of Child in the family (1 – If a family had a child (ren) below 14 years; 0 – otherwise)

X_8 = Dummy – Presence of Aged person (1 - If household with aged person(s) above 60 years; 0 – otherwise)

X_9 = Dummy - Food habit of the family (1 - If non – vegetarian; 0 – otherwise)

X_{10} = Dummy - Type of family (1 – If nuclear; 0 – joint)

α = Intercept

β_i = Regression coefficients to be estimated

μ = stochastic disturbance term

RESULTS AND DISCUSSION

Factors influencing the consumption of cheese

The semi-log functional model constructed to explain the factors influencing the household consumption of cheese. The model showed a good fit with the adjusted R^2 of 0.965, indicating that 96.50 per cent of variation in the dependant variable was explained by the independent variables incorporated. The ANOVA also exhibited that the model had a good fit with a significant 'F' value of 663.82 (Table 1). Of the variables used to explain the variation in the consumption of cheese in Chennai city, family size, education level of the head of the household, monthly family income, food habit of the household consumer and presence of aged person in the family were found to be significantly influencing the consumption of cheese. Of which, family size, educational status of the head of the household and monthly family income were found to be positively influencing the cheese consumption. Similar result was observed by Keshari and Malik (1998) whereas it is controversy to the study conducted by Ingavale and Thakar (2012). Other variables viz., presence of aged person in the family and food habit of the family were found to be negatively influencing the consumption of cheese.

The results indicated that a unit change in the family size could alter the monthly household consumption of cheese by 17.40 per cent, from its mean level, *ceteris paribus*. Similarly, as the educational level of the household consumer increased, consumption of cheese increased by 12.40 per cent from its mean level, *ceteris paribus*. This might be due to that when education level of the household consumer increases, their awareness on dairy products gets increased. Similar result was reported by Das *et al.*, (2011).

Table 1: Factors influencing the consumption of cheese

| Explanatory factors | | ' β_i ' coefficients |
|---------------------|---------------------------------------|----------------------------|
| Constant | | -0.608** (0.071) |
| X_1 | Family size | 0.174** (0.019) |
| X_2 | Age of the head of the household | 0.001 (0.001) |
| X_3 | Educational status of the head of the | 0.124** |

| | | |
|-------------------------|------------------------------------|----------------------------------|
| | household | (0.019) |
| X ₄ | Family income | 0.319** (0.026) |
| X ₅ | Hindu – dummy | 0.005 (0.018) |
| X ₆ | Christian – dummy | 0.036 (0.015) |
| X ₇ | Children in the family – dummy | -0.007 |
| X ₈ | Aged persons in the family - dummy | -0.057* (0.020) |
| X ₉ | Food habit of the family - dummy | -0.058* (0.020) |
| X ₁₀ | Type of the family – dummy | -0.017 |
| R ² | | 0.966 |
| Adjusted R ² | | 0.965 |
| 'F' value | | 663.82** |
| Number of observations | | 450 |

Figures in parentheses indicate standard errors.

Dependent variable: Quantity of cheese consumed per household per month (in Kgs)

*Significant ($P \leq 0.05$); ** Significant ($P \leq 0.01$)

The monthly family income positively influenced the consumption of cheese by 31.90 per cent from the mean level, *ceteris paribus*. This might be due to that as income increases, their preference might shift to value added dairy products. The dummy included for the aged in the household was found dragging down the cheese consumption by 5.70 per cent, as aged persons are more conscious on cholesterol control. The consumption of cheese was increased by 5.80 per cent when the sample households are vegetarians over their non-vegetarian counterparts, *ceteris paribus*. This might be due to that dairy products are the only source of animal protein for vegetarians.

CONCLUSION

The study of analysing the factors that influence the household consumption of cheese by using semi-log functional model revealed that the variables like family size, education level of the head of the household, monthly family income, food habit of the household consumer and presence of aged person in the family were found to be significantly influencing the consumption of cheese. Of which, family size, educational status of the head of the household and monthly family income were found to be positively influencing the cheese consumption whereas, presence of aged person in the family and food habit of the family were found to be negatively influencing the consumption of cheese. The study suggested that a producer should analyze the different factors that influence the consumption and to ascertain how he

can increase the consumer's utility from his product. These results have the potential to assist in the construction of a market strategy.

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