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## Constraint analysis of consumer buying behaviour of branded milk and milk products

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### Abstract

The present study entitled with “constraint analysis of consumer buying behaviour of branded milk and milk products”. Tirupati city was purposively selected for the study and the top 12 wards were selected based on highest population and 10 consumers selected with a sample size of 120 consumers. The information related to the present study was collected using a well-defined schedule through personal interview method and it pertained to the agricultural year 2020-21. The constraints of the consumers were ranked using Garrett analysis on the basis of mean score in descending order. Lower shelf life is major constraint (Rank I), High price (Rank II), Unsuitable quantities (Rank III), Travel to long distance (Rank IV), Poor Packing (Rank V), Lack of information (Rank VI) and least ranked non-availability of products (Rank VII).

**Keywords:** milk and milk products, consumer preference, buying behaviour

### Introduction

Globally, Indian milk production is around 22.6 per cent (NDDB report 2018-2019). India's largest output in 2018-2019 was around 187.7 million tonnes. (NDDB report, 2018-2019). Andhra Pradesh ranks fourth in milk production (FAOSTAT 2018-2019). The per capita availability of milk in India is 394 grams per day (NDDB report, 2018-2019). Milk constitutes 87 per cent of water and 13 per cent of solids with fat soluble vitamins, minerals and milk contains a protein called “casein” and whey. Casein constitutes 82 per cent of total proteins of milk and used as standard for evaluating of other foods. Whey has a higher nutritional value. Whey is the residual after the extraction of fat and casein from milk, which contains the soluble milk salts, milk sugar, and the remaining milk proteins. Whey proteins are made up of several specialized proteins, the most important of which are beta lactoglobulin (50 per cent of whey) and lactoglobulin.

### Methodology

#### Selection of areas

Tirupati city divided into 50 municipal wards. From that existing 50 municipal wards 12 wards were selected based on highest population.

#### Selection of respondents

Tirupati city was categorized into 50 municipal wards based on density of population for effective administration. 12 wards were purposively selected for the study in descending order of highest population recorded as per census 2011. 10 consumers from each ward were selected randomly thus constitutes to sample size 120.

#### Tools of analysis

##### Garrett's Ranking Technique

Garrett's ranking technique was adopted for analyzing the consumer preference towards different types of edible oil. In this method the respondents were asked to rank the factors identified for the purpose of study according to their preferences. Thus, the assigned ranks are calculated by using the following formula.

$$\text{Per cent position} = 100 (R_{ij} - 0.5) / N_{ij}$$

Where,

$R_{ij}$  is the rank given for  $i^{\text{th}}$  item by the  $j^{\text{th}}$  individual.

$N_j$  is the number of items ranked by the  $j^{\text{th}}$  individual.

The percentage position of each rank was converted into scores using Garrett's ranking table. For each factor, scores of individual respondents were added together and were divided by the total number of respondents for whom scores were added together and were divided by the total number of respondents for whom scores were added. Thus, mean score for each factor was ranked by arranging them in descending order.

### Constraints faced by the consumers in purchasing of branded milk and milk products

Data collected regarding to constraints faced by the consumers in purchasing branded milk and milk products. The constraints of the consumers were ranked using Garrett analysis on the basis of mean score in descending order are 'lower shelf life' was the most serious constraint (ranked I) as it is foremost characteristic observed by the consumer in related to branded milk and milk products. Regarding shelf life of branded milk and milk products is varies from milk to-milk products, again in products it is varies from products to products. For processed milk the shelf life was (1 day), for branded curd (2-3 days), for branded butter (6 months), branded ghee (9-12 months), branded panner (20 days). Shelf life of branded milk and milk products depends up on the type of packaging material used by the milk industries. As the processed milk and milk products required refrigerated conditions, once the conditions if absent it will easily get spoiled in terms of quality, taste and color.

High price was the second most constraint (ranked II), consumers were price conscious. Prices of processed milk and milk products, for toned milk (500 ml) - 24rs, double toned milk 500 ml - (20 Rs.) full cream milk 500ml - (30 Rs) for curd 450 gms - (30 Rs), butter 200 gms - (120 Rs), Panner 200 gms - (106 Rs), ghee 500 ml - (335 Rs). As lower income people can't able to afford for high priced branded milk products and mostly consumers want their products should lower priced with high quality. The results confirmed with results verbeke (2004) [5] and kluas and sparke (2006) [1] that high price is constraint for purchasing of products.

Unsuitable quantities (ranked III) Quantity of purchase is depends on family size. Family members with family size 1-3 they not required larger quantities as processed milk and milk products perishable in nature, once the packet if open the perishability will get decrease.

Long Distance (ranked IV) as milk is daily used commodity if the supply points will not present in proximity, it makes consumers very inconvenient in their daily lives. The results confirmed with study Racey *et al.* (2017) [4] that convenience is barrier for daily consumption.

Poor packaging (ranked V) which leads to loss of the product in terms of quality and quantity in milk and in milk products poor packaging leads to spoilage of products.

Lack of information (ranked VI) makes consumer not to get appropriate information regarding different types of milk available in market such as toned milk, double toned milk, full cream milk and nutritional information in terms of enriched vitamins, Proteins, other information which is lacking on packets like brand name and logo. As a result of lack of information, it given scope for consumers easily become prey for adulterated products. The results inferred with the study Adam (2009) [2] who investigates the

adulteration of marketable fresh milk adulterated with water and starch

Non- availability of products (ranked VII) which is least constraint. Now days consumers very loyal towards their brand if particular product not available in their chosen brand it makes consumers inconvenient to shift to other brands.

**Table 1:** Constraints faced by the consumers in purchasing of branded milk and milk products

Particulars	Total score	Garrett's mean score	Rank
Lower shelf life	8667	72.22	I
Higher price	7736	64.46	II
Unsuitable quantities	7414	61.78	III
Need to travel long distance	6217	51.80	IV
Poor packing	5832	48.60	V
Lack of information (nutritional information)	4434	36.95	VI
Non-Availability of products	3664	30.53	VII

### Conclusion

The findings of the study revealed that consumers facing number of constraints while purchasing branded the milk and milk products so the companies have to use required strategies to overcome the constraints faced by the consumers.

### Suggestions

- 1) Companies should expand tetra pack milk packets on large scale as it has shelf life of 3 months which can help to overcome constraint pertain to shelf life in branded milk and milk products
- 2) Most of the low - income respondents preferred price while purchasing branded milk and milk products. So, the companies should focus on the pricing - strategies, keeping price conscious low- income consumers in mind.
- 3) Consumers facing long distance as constraint while purchasing the branded milk and milk products. As a result, companies sell the branded milk and milk products should establish an extensive network of sales points and make them available throughout the day.

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