



# **An Exploratory Study on Factors Influencing the Purchase Intention of Packaged Milk in Erode District, India**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

Consumption of unbranded milk leads to several problems in children and adults. Therefore, innovative packaging technologies is needed for the development of extended shelf life and value added foods and food products. The objective of the present study is to identify the factors influencing the purchase intention towards packaged milk. The study area is confined to Erode district because of its high population and high purchase of packaged milk. Primary data were collected by using a well-structured and pre tested questionnaire. An exploratory factor analysis was performed to identify the underlying factors of consumer intention towards

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packaged milk. From the analysis, it is found that, product quality, value addition and promotional activities like advertisement were the factors that influenced the buying intention of packaged milk.

*Keywords: Packaged milk; purchase intention; consumer buying behaviour; factor analysis.*

## 1. INTRODUCTION

One of the most effective post-independence development initiatives in India is thought to be the dairy sector. The dairy industry has grown significantly in importance by creating jobs for women in particular and benefiting the state's rural, urban, and semi-urban populations. Millions of small and marginal farmers rely on milk and milk products for their vital nourishment and means of subsistence. The bulk of farmers in Tamil Nadu, a state focused on agriculture, own cattle. After agriculture, the primary source of income is the dairy industry. In a tropical nation like India, agriculture may occasionally falter owing to monsoon failure, whereas dairying consistently produces a consistent flow of money [1].

In India, dairy cooperatives sell the majority of the processed liquid milk that is sold. 170 Milk Producers' Cooperative Unions process and sell milk; these unions federate into 15 State Cooperative Milk Marketing Federations. Cooperatives like Saras (Rajasthan), Verka (Punjab), Amul (GCMMF), and Vijaya (AP) have established a number of brands over the years. Gokul (Kolhapur), Milma (Kerala), and Nandini (Karnataka). The Indian states with an excess of milk are Uttar Pradesh, Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Andhra Pradesh, Karnataka, and Tamil Nadu. The dairy cooperatives dominate the packaged milk market. The biggest participant is the Gujarat Co-operative Milk Marketing Federation (GCMMF). Every other nearby dairy cooperative has a distinctive brand.

From the perspective of the consumer, the main issue with the entire milk supply system is that it is produced and supplied by unskilled workers, and it has been observed that these workers adulterate the milk by adding contaminants like low-quality flour and dirty water to raise the total solid content to a level that is acceptable to the consumer [2].

Food items and beverages with higher value added and longer shelf lives now require innovative packaging technologies. The

packaging acts as a barrier in the food sector to prevent contamination from microorganisms and other unwanted substances like light and moisture. Taking care of distribution and storage is the packing material's secondary function (Kumar, 1997). Even though high-quality milks and manufactured dairy products have been produced, unless they are provided to the consumer in a processed, fresh, sound, and acceptable condition, they are likely to be rejected, resulting in significant waste [3]. As a result, the current study is concentrated on the variables affecting consumers' intentions to purchase bottled milk.

## 2. REVIEW OF LITERATURE

Kamins and Marks [4] in their study on the perception of familiar and unfamiliar brands found that consumers will have a higher purchase intention with a familiar brand. Dodds et. al., [5] studied the effect of price, brand and store information on buyer products evaluation and reported that if a product has higher brand awareness it will have a higher market share and a better quality evaluation. Garretson and Clow [6] stated in their study on the influence of coupon face value on service quality expectation, risk perceptions and purchase intentions in the dental industry suggested that perceived quality will influence consumer purchase intention. Hsu [7] from this study on impact of brand awareness and consumers' purchase intention reported that well-known brand will have a higher purchase intention than a less well-known brand. Aaker [8] Assael [9] Kan [10] stated in their study on managing brand equity: capitalizing on the value of brand name mentioned that consumers must have positive feelings to a brand, and then they will produce purchase intention. Laroche and Zhou [11] Laroche and Sadokierski [12] MacKenzie and Belch [13] defined as individual's intention to buy a specific brand individuals who want to buy a specific brand which they has chosen for themselves after certain evaluation; there are variables by which we can measure purchase intention for instance consider the brand for purchasing and expecting to purchase the brand in the future. Judith and Richard (2002) in their study on the evaluation of a consumer-

**Table 1. Statements influencing the consumer purchase intention of packaged milk**

S.No	Constructs	Statements
1.	P1	Best quality of packaged milk
2.	P2	Taste & flavour influenced to purchase packaged milk
3.	P3	Proper package of milk
4.	P4	Nutrient of milk influenced to purchase packaged milk
5.	P5	Thickness of packaged milk influenced to purchase
6.	P6	No cholesterol of packaged milk influence to purchase
7.	P7	Offer of the packaged milk
8.	P8	Recyclable of cover
9.	P9	Price of packaged milk influenced respondents.
10.	P10	Quality of packing material is the reason for purchasing packaged milk.
11.	P11	Available qualities are provided to purchase.
12.	P12	Effective advertisement one of the factor to purchase packaged milk.
13.	P13	Easy to use is one of the factors for preferring packaged milk.
14.	P14	Easy availability influenced to purchase packaged milk.
15.	P15	More segmentation of product is influenced to purchase.

based brand equity scale concluded that perceived quality and brand loyalty have a highly connection, they will positively influence purchase intention. Kotler [14] stated that consumer's feelings consist on personal liking and impulsive situation express that consumer's purchase intention differ due to variation in a situation. Wu [15] from this study found that the perception of consumers will increase or reduce brand loyalty. Chi et. al. [16] stated customer perceived quality will influence brand trust and brand affect, and further to influence brand attitude and purchase behaviour. Thus, perceived quality and brand loyalty are positively correlated, and brand loyalty will increase if perceived quality increases. Sharma and Pathan [17-19] found that the age & gender does not make much difference in the opinion of a consumer while choosing a brand. The purchase decision of the consumers mainly depends on the value of the brand in monetary terms as well as the position it enjoys in the minds of the people.

### 3. DATA AND METHODOLOGY

The research was focused on the consumer purchasing behavior of packaged milk. The study area is confined to Erode district because of its high population and narrowed down to Erode town since the packaged milk purchasing is higher in town area. Out of 60 wards, in the Erode Municipal Corporation, 10 wards are randomly selected. From each selected wards, 20 sample respondents are randomly selected. A pre-tested questionnaire is used to collect data from the respondents.

To better understand the factor influencing the packaged milk a set of 15 statements were selected and each statements were analysed using a five point Likert scale (Strongly Disagree-1, Disagree-2, Neutral-3, Agree- 4, Strongly agree-5). An exploratory factor analysis was performed to reduce the 15 statements under certain factors. The statements selected for the consumer purchase intention of packaged milk is presented and tabulated below in the Table1.

To test the sampling adequacy, Kaiser-Mayer-Olkin measure of sampling adequacy was calculated. The Varimax normalized method is one of the rotation methods that are used frequently to find a new factor that easier to interpret. The variables with commonalities of greater than 0.50 were obtained. The factor with Eigen- value greater than 1.0 were considered for the analysis.

### 4. RESULTS AND DISCUSSION

To identify and investigate the relationship among the variables that influence consumer purchase towards packaged milk, factor analysis was conducted and the results are tabulated.

The Eigen values were examined and all factors with an Eigen value greater than one were kept for further examination. The factor loadings explain the correlation of each variable with the respective factors. Factors were created from groups of statements that had a factor loading over 0.5. The standardised factor loadings of factors analysis were tabulated below in the Table 2.

**Table 2. Standardized factor loadings**

S.No	Statements	Constructs	Factor Loading	Factor Name
1.	Best quality of packaged milk	P1	0.610	Product Quality
2.	Taste & flavour influenced to purchase packaged milk	P2	0.694	
3.	Proper package of milk	P3	0.681	Value addition
4.	Nutrient of milk influenced to purchase packaged milk	P4	0.683	
5.	Thickness of packaged milk influenced to purchase	P5	0.836	
6.	No cholesterol of packaged milk influence to purchase	P6	0.855	
7.	Offer of the packaged milk	P7	0.845	
8.	Recyclable of cover	P8	0.507	Packaging
9.	Price of packaged milk influenced respondents.	P9	0.528	
10.	Quality of packing material is one of the reasons for purchasing packaged milk.	P10	0.655	
11.	Available qualities are provided to purchase.	P11	0.716	Advertisement
12.	Effective advertisement one of the factor to purchase packaged milk.	P12	0.850	
13.	Easy to use is one of the factors for preferring packaged milk.	P13	0.796	Utility
14.	Easy availability influenced to purchase packaged milk.	P14	0.656	
15.	More segmentation of product is influenced to purchase.	P15	0.512	

From the result of factor analysis of consumer purchase intention towards packaged milk, similar factors were group under each attribute. The identified factors under factor influencing purchase intention of packaged were grouped as follows, (i) factor influenced on Product Quality with five statements loaded under it, (ii) factor influenced on Value Addition with three statements grouped under it, (iii) factor influenced on evaluation based on Packaging with three statements, (iv) factor influenced on Advertisement with two statements and (v) factor influenced on Utility with two statements are grouped under it.

From the above underlying factors, the product quality is the most influenced factor on consumer buying behaviour towards packaged milk. Value addition of packaged milk and the promotional activities like advertisements influenced the purchase behaviour of consumers towards packaged milk in Erode district.

**5. CONCLUSION AND POLICY SUGGESTIONS**

Product quality, value addition and advertisements were the most influenced factors towards buying intention of packaged milk in

Erode district. A reliable distribution system should be created to guarantee milk availability and timely delivery. The most crucial element in getting a product established in the market is advertising. Thus, more ads should be placed in various media, including newspapers, magazines, and television. The most important factor affecting the decision to buy branded milk is brand loyalty; the union ought to recognize and reward these patrons. This will improve the perception of goods and services. There isn't a large selection of processed milk offered by milk marketing companies. These businesses ought to provide distinct processed milk variants with a range of flavors and nutritional values. In Erode, consumer knowledge of food safety issues has grown significantly, especially when it comes to milk cleanliness, and consumers have very real concerns about their safety. In this sense, the government ought to align current food safety laws and regulations with global norms and enhance their implementation. To guarantee that customers can access pure and sanitary milk, all parties involved in the milk supply chain should get training on all facets of food safety. Distribution of pure and safe milk to final customers should also be guaranteed by milk marketing businesses.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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