



Consumers' choice and preferences of dairy based products

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India is the world's largest producer of dairy and dairy products. Dairy products include milk, milk powder, curd, butter, cheese, ghee, ice cream, paneer, yogurt, etc. Among these dairy products, milk and curd form daily requirement for each and every household. The proliferation of organized food retailing in India is also altering food consumption patterns, promoting imported foods, branded foods, processed foods and a wider assortment (Balaji *et al.* 2019). Milk consists of proteins, carbohydrates, calcium, fats, minerals, and vitamins. Fat was the major source of energy (Guetouache *et al.* 2014). The dairy product is vital for nutritious dietary intake. As per NDDB, i.e. National Dairy Development Board, 200 to 210 million metric tons was estimated as an Indian dairy demand in the year 2021 to 2022. In Tamil Nadu, Aavin was the main and major contributor to milk which was a leading company in the Tamil Nadu having consumers all over the state. Consumer choice towards various products varies with an individual's demographic characteristics and their interests. Marketing mix also plays a vital role in choice of consumers in preferring products. The aim of this paper was fixed as per this.

In this study, more than twenty articles were collected pertaining to the issues related to factors influencing consumer choice towards dairy-based products; socio-demographic characteristics of consumers; and the Marketing mix (4P's) and consumer preference. Recently published articles were collected from the high impact factor journals with the help of internet having primary data related to dairy products. Based on this source, the objectives were framed and the results were obtained.

While comparing exports and imports of our country, export was more than the import in the year 2018 to 2019. The export value of dairy products changed by nearly 73% (from ₹ 1,954.63 crore to ₹ 3,375.55 crore) and 59% in terms of \$ million from the year April–March 2018 to 2019. The import on the other hand decreased by nearly 19% (from ₹ 312.59 crore to ₹ 254.12 crore) and 25% in terms

of \$ million from the year April–March 2018 to 2019 [Annual Report 2018–19/ Department of Commerce]. It shows that the consumption and demand of dairy-based products all over the world was high. India exports dairy products to the top ten countries such as Turkey, Egypt, Bhutan, USA, Saudi Arabia, Malaysia, Afghanistan, Singapore, U Arab Emts, and Bangladesh (DGCIS Annual Export).

Among the dairy products consumption, the dominating product was the liquid in both urban and rural areas. The consumption pattern changed by 350% in case of Ice-cream in the year 1993–94 and 2009–10 (Table 1).

On the other side, ghee and butter showed bit reduction in consumption expenditure. Consumption expenditure of dairy products was increased faster in urban than in rural areas at the period 1993–94 to 2009–10.

Influencing factors towards Dairy-based products: Several articles were reviewed to study the factors which were influencing the consumers for purchasing dairy-based products. Taste, quality, and freshness were the important factors for purchasing Amul dairy products by the consumers who were in Coimbatore city (Ramya *et al.* 2018). Nutrient value, packaging, sales location, brand, and quality were the important factors for buying Arokiya milk brand with special reference to Thanjavur town dairy product consumers (Annammal *et al.* 2019). Rengarajan *et al.* studied the buying behaviour of selected branded milk products and concluded that the factors like quality, energy followed by fat, packing, toned level, taste, flavours, quantity, availability and price played a major role in consumer buying behaviour (Rengarajan *et al.* 2014). Quality was a key motivational factor for consumer buying decisions in branded dairy products followed by price, packaging and tradition (Henrieta *et al.* 2015). Chi *et al.* (2008) and Jalilvand *et al.* (2011) concluded that product quality was an important factor and it had a positive impact on consumer buying intention.

Quality was the vital factor prescribed by the aroma product consumers (Fig. 1.) followed by thickness and shelf-life in buying aroma dairy products especially in Coimbatore district (Dhanya *et al.* 2018). Bharat *et al.* investigated the factors such as freshness, fat level, price,

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Table 1. Per capita expenditure on dairy products in India at 1993–1994 and 2009–2010 prices (₹ per annum)

Dairy product	Expenditure on milk and milk products		
	Rural Change (%)	Urban Change (%)	All Change (%)
Liquid milk	18.9	65.1	20.3
Curd	0.0	65.5	13.8
Ghee	-13.9	55.5	3.3
Butter	-60.0	-7.5	-38.5
Ice-cream	150.0	541.7	350.0
Condensed milk/ Powder	14.3	14.3	-6.5
Baby food	44.4	44.4	64.3
Condensed milk/ Powder	2.1	2.4	14.3
Baby food	0.9	1.3	44.4

Source: Extracted from unit level data of 50th, 61st and 66th rounds of consumer expenditure survey of NSSO.

quality and availability in both packed and unpacked milk products. He found that standard quality, low fat level of packed dairy products and freshness, quality of unpacked dairy products were the important factors which influenced the consumers. But consumers would feel that unpacked milk was the healthy one than packed milk because of the absence of chemical additions and preservatives in Veraval city (Bharat *et al.* 2017).

Quality and taste were the most key factors in preference of Aavin milk by consumers (Ahila *et al.* 2015). Mutsikiwa *et al.* studied the impact of packaging on buying behaviour of consumers. He found that packaging was also important and strongly influencing factor while purchasing (Mutsikiwa *et al.* 2013). Quality followed by availability, guarantee and reputation was the influencing factor for brand loyalty (Aavin) in the consumer decision process

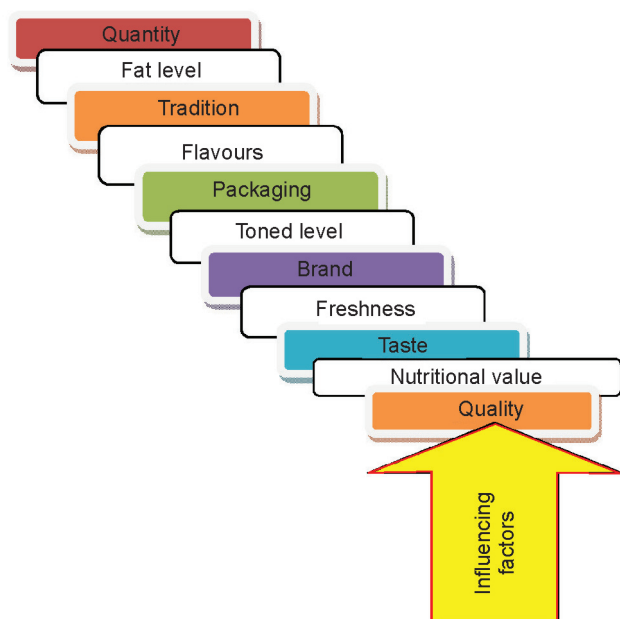


Fig.1. Influencing factors towards dairy based products.

(Jothi mary *et al.* 2013). Nutritious value was the major factor for preferring whole milk followed by the taste for preferring dairy products such as ghee, butter and cheese (Bhavya *et al.* 2017).

From the reviewed articles, it was very clear that quality and nutritional value play a major role and strongly influence the consumers' choices in dairy products. Nowadays, people are very health conscious and include dairy products in diet for leading a healthy life.

Consumer choice and socio-demographic characteristics of consumers: Several studies were reviewed to find the differences of consumer choice with their socio-economic and demographic characteristics like income, education, marital status, size of the family, gender, etc (Fig. 2.). Demographic characteristics such as gender, family size and income of the family significantly influenced the choices while choosing dairy products. He concluded in his research that Females, aged between 35–45 years old, married and

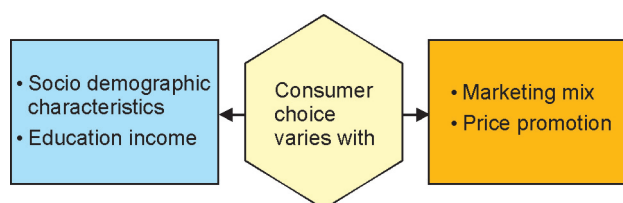


Fig. 2. Differences in consumer choice.

with income 285 dollars per month purchased dairy products once or thrice in a month. Females (aged between 35–45 year) with no children and single people with income of 285 to 571 dollars per month purchased dairy products three to six times per month. People composed of male, aged more than 55 years old, having children, married person and their family income per month was more than 571 dollars purchased dairy products more than six times per month. Mostly, the cream was preferred by people who were buying dairy products once or thrice in a month. Butter was mainly preferred by the people who were buying dairy products three to six times in a month.

By analyzing the preference of milk and milk products with the income level (low, middle and high) of the family members, Bhavya *et al.* concluded that curd and milk followed by ice-cream was preferred by all level of household income groups. The ice cream was mostly preferred by the middle-level income group followed by the high-income group. Among the milk and milk products, paneer, cheese and butter were not preferred by low-income group people (Bhavya *et al.* 2017). On the compared area of residence with consumer choice of dairy products, the outcome was that urban resident people drained more amount in buying dairy products such as liquid milk, curd, butter and other milk products than rural residents. Vegetarians drained more money for dairy products than non-vegetarians. This study was conducted in Kerala (Krishnadas *et al.* 2015). Cuma Akbay *et al.* conducted the research in turkey about unpacked and packed fluid milk consumption choice. They found that educated people

mostly preferred sterilized and pasteurized milk than uneducated people. Likewise, high-income people and families having children below 14 years of age mostly preferred the sterilized and pasteurized milk than unpacked fluid milk. (Cuma Akbay *et al.* 2019).

By investigating the consumer preferences towards dairy-based products, results indicated that aged people didn't prefer the full-fat yogurt than youngsters. Men had a lower interest in preferring high-fat yogurt than women. Likewise, cream cheese choice varies with gender, doogh product choices varies with family size, butter products vary with age by using a nested logit model (Sina Ahmadi Kaliji *et al.* 2019). These recent studies explained that socio-demographic characteristics also determine the consumer choices towards dairy-based products. Mainly the education and income level of the household heads determine the dairy product preferences. Educated people are sensitive to health and they like to maintain their diet properly.

Marketing mix (4P's) and Consumer preference: The marketing mix includes price, promotion, place and product. To access consumer preference, Jothi mary *et al.* (2013) analyzed sales promotion techniques and concluded that people preferred extra quality products followed by offer in price and advertisement. Media was an important source for creating awareness of aroma milk products. A high price was the major constraint in purchasing aroma milk products (Dhanya *et al.* 2018). In case of Aavin milk products, price was too much than other brands. Even though the price was more, people preferred Aavin for its taste and quality (Ahila *et al.* 2015). On investigating, the non-sensory factors such as brand, price and health on consumer choice of a functional food (Yogurt) over regular yogurt. Ares *et al.* concluded that price and health plays a major role in influencing choice of consumers towards functional yogurt than the regular one (Ares *et al.* 2010). Bhavya *et al.* concluded that quality followed by low price was also one of the reasons for preferring dairy products by consumers (Bhavya *et al.* 2017).

Higher price decreased the probability of choosing the behaviour of dairy products by consumers (Assan *et al.* 2017, Bhavya *et al.* 2017, Bousbia *et al.* 2017, Ahmadi kaliji *et al.* 2019). Product and price showed the positive significance in choosing full-fat yogurt. Price negatively affects consumer choice behaviour in choosing cream cheese. But positively influence the preference of natural cheese. The promotion also increases consumer choice in choosing cream cheese. Price increases the probability of choosing butter and ice cream on sticks in the dairy products. Likewise, promotion, price and place also influenced the probability of consumer choice in choosing traditional ice cream (Ahmadi kaliji *et al.* 2019). It shows that among the marketing mix, price plays a major role in consumer choice in choosing dairy products followed by promotion. But, nowadays few people do not refer to the price, if the product has quality. So, marketers should allocate the marketing mix to satisfy the target consumers.

This study explained that socio-demographic

characteristics also determine the consumer choices towards dairy-based products. Mainly, the education and income level of the household heads determine the dairy product preferences. Educated people are sensitive to health and they like to maintain their diet properly. When the income level of the consumer changes, they prefer to buy new variety of dishes. As the income level changes, lifestyles also change and influences them to prefer new variety of dishes. This study also shows that among the marketing mix, price plays a major role in consumer choice in choosing dairy products followed by promotion.

SUMMARY

Dairy is a preferred product in most of the households in various forms, ranging from milk, butter, curd to sweets, chocolates, hot beverages, etc. The aim of this study was to investigate the Consumer choice and Consumer preferences towards dairy products. In this study, more than twenty articles were collected and reviewed. Recently published articles were collected from the high impact factor journals consisting of the primary data related to dairy products. Based on this source, the objectives were framed and the results were obtained. The result obtained in this study showed that the major factor influencing the consumer towards dairy was the quality and nutrient content present in it. Socio-demographic characteristics also determined the consumer choices towards dairy-based products, especially the education and income level. And also, price plays a significant role in consumer choice in choosing dairy products followed by promotion in the marketing mix. The examination of consumer choice and preferences determined that quality and nutrient content were the major reason for influencing consumers.

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