

A Study on Consumer Perception of Benefits of Milk and Milk-Based Products

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ABSTRACT

India is ranked first in milk production contributing 24.64 per cent of global milk production as per the year-end review report 2023 by (the Ministry of Fisheries, Animal Husbandry and Dairying). There are 27 state/UT-level marketing federations. Also, there are 228 dairy cooperative milk unions in India. A total of 2,28,374 village-level co-operative societies are under milk unions. ((NDDDB, 2021-2022). This culminates to competitiveness in the market place which necessitates companies to know about the behaviour of customers which originates from their perception. For this reason, the present study aims to interpret consumers' perceptions of the benefits of milk and milk-based products. As primary data questionnaire is collected from a sample size of 101 respondents from different localities of Thane, Mumbai and Palghar based on consumers' demographics, preferences, and factors of influence to select organized (packed) or unorganized (unpacked) milk. The study consists of milk, buttermilk, curd and Ghee which are consumed by people for different purposes Research design was made after the review of the literature. The study could provide some important insights to producers and marketers of dairy products based on consumers' perceptions.

Keywords: *National Dairy Development Board (NDB), Demographics- Age, income, location, Milk co-operatives – Procurement of milk and provide service.*

INTRODUCTION

“Change is the law of nature”, complying with the quote markets are also subject to it. As market consists of buyers and sellers the transition of both can be seen as , the buyers evolved since buying product or services to fulfil physiological needs to buying for fulfilling of psychological needs and in case of sellers, the sellers went from following the production concept to following the marketing concept. This explicitly signifies that to sustain in the market, change must be embraced. In past we have seen many giants of the market, at time holding majority of market share ending up losing the hold of market to the competitors and new players who were catering their services or selling products which were making consumers delighted by helping consumers

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converging their changing desires with the offerings. This new or existing competition did nothing but centralized their offerings according to customers i.e customer orientation, by merely emphasizing and embracing the change in behaviour and perception of the buyers.

This is important for businesses to satisfy consumers' needs and serve them what consumers expect from them. To crack the code of the changing needs and wants of the consumers it is very important to study or recognize the perception of consumers and their behaviour. This evolution of customers is lucrative to many players in markets and set a level field for new entrants. So to outstand the competition, businesses need to interpret the consumers and orient the offering according to the customers. This can pave the way for businesses to sustain and ultimately grow.

LITERATURE REVIEW

(Keller, 2016) The production concept is one of the ancient concepts of business. It proposes to make products available at arm's length and with lower prices. So, sellers followed this technique and produced more at a low cost.

(Keller, 2016) The product concept proposes that consumers value product or services which has quality, performance. So it is unlike earlier that producers manufacture any product and the consumers will buy. This is very important for start-ups to understand that it is very important to price, distribute, advertised and sold properly.

(Keller, 2016) The selling concept puts that businesses do hard selling to sell which results in the opposite. If consumers is not a good option rather they must be coaxed so they not only return back but also don't bad mouth.

(Keller, 2016) The marketing concept proposes that businesses should sense and respond to the market. Its unlike the above concept that focuses on sellers or the products rather it is more customer-oriented and produces the product which the customer demands. It says do not find the right customers for products rather find the right product for customers.

(al, 2010) The research emphasises the connection between the purchase preference, behaviour and motives of the buyer while selecting dairy products reflecting that there are factors (gender and educational level) affecting the buying and consumption pattern. In the study, women are on higher demand for beverages of milk which contains less fat and conversely, men are more brand loyal. While the population that

was high on education preferred to buy drinks contains whey(protein) it. Also, the taste was found out to be the determining factor, followed by the health benefits, brand, weight control and price.

(al., 2009) The study tested 11 product-related aspects such as packaging, price, brand, appearance, flavour, and others, along with 8 consumer-related characteristics like age, income, health issues, and more, to investigate their impact on Sri Lankan consumer's intake of fresh milk. The research findings revealed there was a positive association between consumer-related characteristics and fresh milk consumption, particularly in relation to income, age, education, and household makeup. Conversely, there was negative association observed for ethnicity and health, indicating a decline in fresh milk consumption as the numerical value of the investigated factor increased.

(Veblenian Socio-Psychological Model)The theories discussed focus on the impact of social and cultural norms on individual consumer behaviour. Thorsten Veblen emphasized the influence of social groups on shaping desires and behaviours. Reference groups, such as family, friends, and celebrities, play a significant role in influencing consumer behaviour by serving as sources of information and points of comparison. Marketers often use popular figures in advertising to appeal to these reference groups. Culture, consisting of learned beliefs and behaviours shared by a society, greatly influences consumer behaviour patterns. Cultural behaviour is dynamic, making it challenging for marketers to target specific consumer segments. Subcultures, which exist within larger cultures, have distinct beliefs and values that impact buying behaviour. Social class also plays a significant role in influencing consumer behaviour, as individuals are classified based on their societal values.

(Kotler) Customers often rate brands based on their pricing approach, considering intrinsic product meaning and perceived quality. Value-based pricing tactics are used by marketers to sell goods at the ideal price, understand customer perceptions of prices, identify quality and value implications, and influence consumer choice.

(Hanna/Wozniak', , 2013)Customers are influenced by their environment and mental and physical states, leading to purchases and actions reflecting their situational self-image. Contextual variables, including physical surroundings, social environment, task definition, timing, and previous conditions, are external conditions that influence product consumption, purchases, and conversations.

OBJECTIVES OF THE STUDY

To understand the relation between the belief and knowledge of consumers on the benefits of milk and milk-based products.

To identify factors influencing the buying behaviour of milk.

- To study preference of attributes during milk purchase.
- To assess the use of milk products for additional benefits.

RESEARCH METHODOLOGY

Research methodology is a systematic and logical way of addressing and resolving a research problem. It is a way through which the intent and ways of research can be reflected. .

Research Design

Research on this topic can be classified in to two namely **exploratory** and **descriptive** which intend to study the perceptions of consumers of benefits provided by the milk and by its derivatives of the consumers , their perceptions , awareness and understanding of milk and other influencing factors. Also, carried out a review of previous studies done by researchers in the field of dairy. For instance, studies take into consideration such as (Kotler) for the study on consumer perceptions. To study the consumer's behaviours studies reviewed such as (al, 2010) and (al., 2009). The study takes into consideration only five products (milk, buttermilk, ghee, lassi, and curd). Thus these five products are taken for the study of consumer perception in three districts.

Research Hypotheses

There are three hypotheses framed after interpretation of objectives and review of the literature. The first hypothesis is to examine the relationship between beliefs concerning the knowledge of customers.. The second hypothesis is to study the correlation between preference of attributes during purchase with educational qualification. The third hypothesis is to interpret the correlation between various uses of milk for additional benefits in the respondent's mother tongue, of the respondents. The framed hypotheses are as follows:

H₀: There is a relation between the belief and knowledge of respondents on milk nutritive components.

H₀₁: There is no correlation between preference of attributes during milk purchase with educational qualification,

H₀₂; There is a correlation between the use of milk products for additional benefits with respondents' mother tongue

Methodology of sampling

The sample is a part of the population, it represents the essence of the whole population. This research includes a sample of 101 respondents. This response is randomly collected and the data is analyzed by the SPSS software

- Sampling technique: Simple random sampling
- Sample size: 101 respondents
- Data analysis method: chi-square analysis, correlation analysis.

METHOD OF DATA COLLECTION

There are two types of sources for data “to study the consumer's perception on benefits of milk and milk-based products.”

- 1. Primary data:** In this research process 101 samples are collected from three districts (Mumbai, Thane and Palghar) in the western region of Mumbai.
- 2. Secondary data:** Secondary data is collected from various sources such as Books, research articles, websites and government websites.

TOOLS OF DATA COLLECTION

All the responses are collected first by the structured questionnaire then it has been collected into Excel and then finally for the analysis of the data SPSS software was utilized. The designed hypotheses are tested by the tools such as chi-square and Pearson correlation to understand the study better as shown in the table below.

Table 1

Hypothesis	Dependent variable	Independent variable	Statistical test
Ho	Consumer	Belief knowledge	Chi-square
Ho1	Attributes during purchasing	Educational Qualification	Pearson correlation
Ho2	Additional benefits.	Mother tongue	Pearson correlation

LIMITATIONS OF THE STUDY

- The sample collected during the survey covers only three districts in Maharashtra (Mumbai, Thane and Palghar)
- The survey consists of a simple random sample
- Evaluation is based on primary data and findings depend on the response of respondents.
- Data collected through questionnaires is not immune from biased information.

Qualitative data interpretation and analysis

Hypothesis

(H_0): There is a relation between belief and knowledge of respondents on milk nutritive components.

Table 2

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.970 ^a	3	0.579
Likelihood Ratio	2.075	3	0.557
Linear-by-Linear Association	0.032	1	0.858
N of Valid Cases	101		

Data interpretation

All the p-values for the Chi-Square tests are above 0.05, there is no statistically significant associations between the variables. So we reject the null hypothesis that belief and knowledge are independent of each other with exceptions.

Hypothesis

(H_{01}): There is a no correlation between preference of attributes during milk purchase with educational qualification

Table 3

Correlations			
		what are your preferences for attributes of milk	what is your educational qualification
what are your preferences for attributes of milk	Pearson Correlation	1	-.211*
	Sig. (2-tailed)		0.034
	N	101	101
what is your educational qualification	Pearson Correlation	-.211*	1
	Sig. (2-tailed)	0.034	
	N	101	101

Data interpretation

The negative correlation of -0.211 suggests a statistically negative correlation relationship between preferences for attributes of milk and educational qualification. Hence, we fail to reject the null hypothesis.

Hypothesis

(H_{02}): There is no correlation between the use of milk products for additional benefits with respondents' mother tongue

Table 4

Correlations			
		what is your mother tongue	what would you select for additional benefits
what is your mother tongue	Pearson Correlation	1	0.160
	Sig. (2-tailed)		0.110
	N	101	101
what would you select for additional benefits	Pearson Correlation	0.160	1
	Sig. (2-tailed)	0.110	
	N	101	101

Data interpretation

The positive correlation of 0.160 is greater than the significant difference between the mother tongue and the selection of additional benefits. Hence, we reject the null hypothesis.

CONCLUSION

- The lack of statistically significant relationships between the variables under investigation may be caused by a sizable percentage of cells having lower than predicted counts, which would undermine the validity of the Chi-Square test findings.
- A statistically significant, weak negative correlation of -0.211 exists between educational qualification and preferences for attributes of milk, suggesting a slight tendency for differences in milk preferences as educational qualification increases
- The selection of additional benefits and mother tongue has a small positive association value of 0.160, suggesting that people with various linguistic origins may have somewhat different preferences when selecting additional advantages. Further analysis of additional variables is recommended for a more comprehensive understanding.

RECOMMENDATIONS

- As there is no significant relationship between belief and knowledge, the companies can focus more on being transparent and spreading more awareness of the benefits of milk.
- Companies should spread the awareness to check and know of different attributes (such as price, packaging, taste, ingredients details) before buying the product irrespective of educational qualifications.
- Milk is used in different ways in different cultures, so companies should emphasise adding product lines that cater to the different purposes of milk in getting additional benefits to consumers.

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