

A Study on Buying Behavior of Nutri Cereals among the Consumers in Coimbatore District, Tamil Nadu

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Aim: Nutri cereals are the earliest foods known to humans, but urbanisation and industrialisation have diminished their cultivation and consumption due to large-scale rice and wheat cultivation. Hence, the present study aims to know the buying behavior of Nutri cereals among the people in the Coimbatore District.

Study Design: Totally 100 consumers were selected by proportionate random sampling. Primary data was collected from the respondents by using well-structured interviews scheduled between October 2021 and November 2021

Methodology: Percentage age analysis and Garrett's ranking techniques were used to analyze the data.

Results: Results revealed that nutrient content and better quality are the major factor influencing the purchase of Nutri cereals. Therefore, the development of customized products in Nutri cereal products category and proper promotion measures should help the policymakers to increase consumption among the people.

Keywords: Consumer; buying behavior; nutri cereals; constraints.

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1. INTRODUCTION

India is a major user and producer of nutritional cereals around the world. Nutri-cereals include sorghum, pearl millet, finger millet, foxtail millet, small millet, kodo millet, barnyard millet, and proso millet (Department of Agriculture, Cooperation & Farmers Welfare, 2022). Nutri cereals are nutritionally comparable to major cereals for carbohydrates/ energy, and serve as good source of protein, micronutrients and phytochemicals. It contains 7-12% protein, 2-5% fat, 65-75% carbohydrates and 15-20% dietary fibre. Nutri cereals, as whole grains, contain essential nutrients and vitamins concentrated in the outer layer of the grain or the seed coat and provide nutritional and health benefits (Antony et al., 1996). Nutri cereals requires low water footprint, are able to survive in the hottest driest climates, and will be important in coping with climate change [1].

In India, Nutri cereals are grown on about 36.25 million hectares, with an annual production of 62.49 million tonnes and a yield of 4349 kg/hectare (Directorate of Economics and Statistics, 2019-20). Sorghum and Pearl millet are the most important Nutri cereals crops, accounting for 92.06% of global production, followed by Finger millet, Foxtail millet, Proso millet, Barnyard millet, Little millet, and Kodo millet, which account for 7.94%. Nutri cereals were the oldest foods known to humans but their importance and cultivation reduced due to the large scale cultivation of rice and wheat due to urbanization and industrialization (Indian Institute of Millets Research, 2018). Hence, it is necessary to understand the consumer buying behaviour and also identify the factors influencing the purchase of Nutri cereals. To analyze the buying behavior of consumers for Nutri cereals, the objectives were taken as follows:

- To study the socio-demographic profile of the Nutri cereals consumers
- To analyze the factors influencing the purchase of Nutri cereals.
- To identify the willingness to pay (WTP) for Nutri cereals
- To analyze the constraints in purchase of Nutri cereals

2. METHODOLOGY

Coimbatore District was purposively selected to know the consumer buying behavior towards

Nutri cereals. The sampling technique involved is proportionate random sampling. In Coimbatore District, five regions were selected. Each region consists of 20 samples and made the sample size equal to 100. From each region, ten samples from shopping areas and the remaining from household were selected. Primary data were collected by using well structured interview schedule during the period of October 2021 - November 2021. To analyze the data, tools which were used as follows,

1. Percentage age analysis
2. Garret's ranking technique

2.1 Percentage Analysis

Percent analysis was used to analyze the general characteristics of the sample respondents such as age, educational status, gender, income, source of information, and willingness to pay for Nutri cereals.

2.2 Garrett's Ranking Technique

Garrett's ranking technique was adopted to analyze the factors influencing the purchase and constraints faced by the sample respondents while purchasing Nutri cereals. The orders of merit given by the respondents were converted into ranks by using the following formula.

$$\% \text{ Position} = \frac{100(R_{ij} - 0.05)}{N_j}$$

Where,

R_{ij} = Rank given for i^{th} attribute by j^{th} individual

N_j = Number of attributes ranked by j^{th} individual

The % position of each rank obtained was converted into scores by referring to Garrett's table. Mean score was estimated for each attribute. The mean scores for all the constraints were arranged in descending order. The attribute with the highest mean score was given first rank. It was recognized as the most important factors influencing the purchase of Nutri cereals and constraint faced by the respondents during Nutricereals purchase.

3. RESULTS AND DISCUSSION

3.1 Socio Economic Characteristics

The details of gender, age, education and monthly income of the respondents were analyzed, and the results are presented in Table 1.

Table 1. Demographic details of sample respondents

Characteristics	Category	Number (N=100)	Percentage
Gender	Male	45	45.00
	Female	55	55.00
Age (In years)	Upto 30	18	18.00
	31-40	33	33.00
	41-50	38	38.00
	>50	11	11.00
Educational status	Illiterate	6	6.00
	Primary Education	17	17.00
	High school	25	25.00
	Graduate	43	43.00
	Post graduate	9	9.00
Income of the respondents	₹Upto 90000	15	15.00
	₹90000-200000	32	32.00
	₹200000- 1000000	45	45.00
	> ₹1000000	8	8.00
Total		100	100.00

Table 1 shows that the respondents were classified based on different demographic features. According to the gender character, 55% of the sample respondents were female and 45% of them male. It was observed that majority of the sample respondents were 41-50 years (38%) followed by 31-40 years (33%). Most of the respondents are graduates and the family income ranged from 2-10 Lakhs per annum. Hence, it is easy for the firms to communicate information through brochures and pamphlets, which will easily attract more consumers and frame their promotional strategies accordingly.

3.2 Source of Information about Nutri Cereals

Trusted sources and information are very important to buy new products. The source of information for Nutri cereals are given in Table 2.

It could be concluded from Table 2, majority of the respondents indicated family members as the source of information about Nutri cereals which accounted for 39%, followed by friends and relatives (25%), Doctor/Nutritionist (19%), Print

media/Leaflets (11%) and social media (6%) [2]. Majority of the people knew the value and health benefits of Nutri cereals, since Nutri cereals were considered as one of the traditional food from ancestor period. We believe in friends/relatives suggestions before choosing any products in the markets. As diabetes, hypertension, and cardiovascular disease become increasingly common as a result of new lifestyles and eating patterns, Nutri cereals have resurfaced as a feasible alternative for living a healthy lifestyle and lowering the incidence of these lifestyle diseases. Nutri cereals contain a variety of nutritional, nutraceutical, and health-promoting benefits, and because of their high fibre content and starch composition, they can help to reduce the risk of diabetes and other disorders [3,4].

3.3 Factors Influencing the Purchase of Nutri Cereals

Factors influencing the purchase of Nutri cereals among the respondents were analyzed and presented in Table 3. Garrett's Ranking technique [5] was used for analyzing the data.

Table 2. Source of information about Nutri cereals

S. No	Particulars	Numbers (n=100)	Percentage
1.	Family members/Self interest	39	39.00
2.	Friends and relatives	25	25.00
3.	Print media/Leaflets	11	11.00
4.	Social media	6	6.00
5.	Doctor/Nutritionist	19	19.00

Table 3. Factor influencing the purchase of Nutri cereals

S. No	Particulars	% Score	Rank
1	Highly nutritious	52.38	I
2	Better Quality	45.37	II
3	Influence of Friends/Neighbours	41.11	III
4	Easy availability	34.68	IV
5	Price	30.23	V
6	Mass media	27.45	VI

It could be calculated from the Table 3, the main influencing factor for the purchase of Nutri cereal products by the sample respondents was high nutritious content (52.38%) followed by quality (45.37%), influence of friends/neighbours (41.11%), easy availability of the product (34.68%) and price(30.23%).Only less number of respondents considered mass media as an influencing factor for the purchase of Nutricereals [6,7].

3.4 Willingness to Pay for Nutri Cereals

Willingness to pay (WTP) is the maximum amount a customer is willing to pay for product or service. This makes willingness to pay a crucial factor when finding the best price to sell a product for both the seller and buyer.

It could be concluded from Table 4, 47%,40% and 38% of the sample respondentsare willing to pay extra 10% for cleaned and processed Nutri cereals, graded, labeled and packed Nutri cereals,food safety and quality certification,

respectively. Only 29% of the sample respondents were willing to pay extra 10-15% and 23% of the sample respondents were willing to pay extra 10-15% for graded and packed and organically certified Nutri cereals, respectively.

3.5 Constraints in Purchasing Nutri Cereals

The constraints involved in purchasing Nutri cereals were analyzed by Garrett's ranking technique and are presented in Table 5.

It could be concluded from Table 5, the major constraint for purchasing Nutri cereals the availability of only fewer customized products with the % score of 62.48 and followed by lack of promotion for Nutri cereals (57.91). The consumers faced other constraints like different preferences for food among the family members, high price and high time requirement for cooking. The Nutri cereal processing firms should try to produce customized products at nominal price for all people.

Table 4. Willingness to pay for Nutri cereals by the sample respondents

S. No	Statements	Upto 10%	10% -15%	15%-20%	>20%	Not willing to pay extra
1	Food safety and quality certification	38 (38.00%)	20 (20.00%)	11 (11.00%)	7 (7.00 %)	24 (24.00%)
2	Available in well known brands	26 (26.00%)	19 (19.00%)	15 (15.00%)	8 (8.00%)	32 (32.00%)
3	Graded and packed	35 (35.00%)	29 (29.00%)	21 (21.00%)	5 (5.00%)	10 (10.00%)
4	Packed and Labeled	35 (35.00%)	21 (21.00%)	18 (18.00%)	12 (12.00%)	14 (14.00)
5	Graded, Labeled and Packed	40 (40.00%)	18 (18.00%)	15 (15.00%)	11 (11.00%)	16 (16.00%)
6	Cleaned and Processed	47 (47.00%)	19 (19.00%)	15 (15.00%)	13 (13.00%)	6 (6.00%)
7	Organically certified	34 (34.00%)	23 (23.00%)	16 (16.00%)	14 (14.00%)	11 (11.00%)

(Figures in paranthesis indicates Percentage to total)

Table 5. Constraints in purchase of Nutri cereals

S. No	Constraints	% score	Rank
1.	Fewer Customized products	62.48	I
2.	Lack of promotion for Nutri cereals products	57.91	II
3.	Different preferences among the family members	55.23	III
4.	High price	52.03	IV
5.	More time to cook	45.73	V
6.	Lack of Nutri cereal products availability	37.74	VI
7.	Not available in well known brands	38.80	VII

4. CONCLUSION

The majority of the respondents buy Nutri cereals only for being high nutritional properties and better quality. Fewer customized products are the primary constraint for purchasing more Nutri cereals. The major source of information for the sample respondents was from family members/self-interest followed by friends/relatives. Majority of the sample respondents willing to pay extra 10% for cleaned and processed Nutri cereals followed by graded, packed, and labeled products. The Nutri cereal processing firms should concentrate on producing customized products with promotional offers, advertisement on the nutritional properties of the products. To revalorize millets for food and nutritional security, new value addition and processing technologies, marketing strategies, and regulatory initiatives are required.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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