

CONSUMER PERCEPTION TOWARDS VALUE ADDED NUTRI-CEREAL PRODUCTS IN HYDERABAD CITY

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The study, "Consumer Perception Towards Value-added Nutri-cereal Products in Hyderabad City," explored how consumers in Hyderabad perceive these products and the factors influencing their perceptions. Conducted with a purposive approach, the research utilized a sample of 124 consumers, primarily aged 26-40, with a majority holding a graduation degree and working in the private sector. Data was collected through personal interviews and analyzed using statistical techniques such as percentage analysis, Likert scale analysis, and factor analysis. The findings indicated that consumers highly valued nutritional attributes, viz., "Rich in vitamin content" and "High in protein" being most positively perceived, while "Lower fat" was less favored. Special attributes like "Nutritional value" and "Packaging" were prioritized, and "Convenience" was the top benefit in diet and lifestyle. The perception of value for money was predominantly "Good." The study identified that "preservation and time saving" were key factors influencing purchase motives, with other significant factors including "augmentation," "convenience," and "influential factors." Overall, consumers prioritize nutritional value, convenience, and packaging in their perception of value-added nutri-cereal products..

KEYWORDS: Nutri-cereal products, Consumer, Perception, Factors.

INTRODUCTION

Nutri-cereals, are recognized by the Food Safety and Standards Authority of India (FSSAI) and include major crops like sorghum and pearl millet, along with minor crops such as foxtail and little millet. Despite their historical significance, these grains have been over shadowed by staple crops like wheat and rice in Indian cuisine. India and China are the leading millet producers, but millets role in the diet has diminished due to the popularity of wheat and rice, which are restricted to specific climatic zones. Millets, designated as "Nutricereals" by the Indian government in 2018, offer excellent nutritional benefits including fiber, minerals, and vitamins. They are adaptable to diverse climates and require minimal irrigation, thriving in dry and hilly regions. The Indian government has declared 2023 the International Year of Millets to boost global awareness and adoption of these grains. In 2022, the packaged food market for nutri-cereals in India was valued at US\$ 37.7 million, with a projected Compound Annual Growth Rate (CAGR) of 9.2 per cent from 2022 to 2032. Despite their potential, research on millets has been limited, and the value chain has been restricted to basic processing. However, recent efforts to revitalize millet cultivation and processing are underway, with increasing

recognition in the processed food industry. The market faces challenges, including limited consumer awareness and misconceptions about high costs. Addressing these through effective promotional campaigns and pricing strategies presents opportunities for new market entrants. With India's growing population and nutritional needs, millets could enhance food security and farmer incomes, supported by government initiatives to promote these ancient grains.

METHODOLOGY

The study was conducted purposively in Hyderabad because it is one of the metropolitan cities in South India and also the city is undergoing rapid and dynamic changes due to urbanization. This area is particularly selected in order to understand consumer perception, factors influencing perception, and market entry opportunities for value-added nutri-cereal products. A total number of 124 customers were interviewed and data was collected. Primary data regarding consumer perception and factors influencing perception towards value-added nutri-cereal products were collected by personally interviewing the respondents using a structured schedule. The data collected were subjected to the appropriate set of statistical analysis using SPSS program, mean, percentages and Likert scale. The total

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Table 1. Consumer perception towards value added Nutri-cereal products (Health benefits)

MR S NR NR <t< th=""><th>s S</th><th>Particulars</th><th>Strongly agree</th><th>ngly ee</th><th>Agree</th><th>ee</th><th>Neutral</th><th>tral</th><th>Disagree</th><th>gree</th><th>Strongly disagree</th><th>ngly ;ree</th><th>Total</th><th>Mean</th><th>Rank</th></t<>	s S	Particulars	Strongly agree	ngly ee	Agree	ee	Neutral	tral	Disagree	gree	Strongly disagree	ngly ;ree	Total	Mean	Rank
nent 32 160 31 124 45 135 11 22 5 64 18 36 17 17 406 3.27 ion 27 135 16 64 27 81 53 106 7 7 393 3.16 9 45 44 176 34 102 23 46 14 14 383 3.08 25 125 55 220 17 51 16 32 11 11 439 3.54		I	NR	S.	NR	S.	NR	N	NR	S	NR	S.	score		
nent 32 160 31 124 45 135 11 22 5 446 3.59 on 27 135 16 64 27 81 53 106 7 7 393 3.16 9 45 44 176 34 102 23 46 14 14 383 3.08 25 125 55 220 17 51 16 32 11 11 439 3.54	-	Improved health	19	95	48	192	22	99	18	36	17	17	406	3.27	3
on 27 135 16 64 27 81 53 106 7 7 393 3.16 9 45 44 176 34 102 23 46 14 14 383 3.08 25 125 55 220 17 51 16 32 11 11 439 3.54	7	Weight management	32	160	31	124	45	135	11	22	S	S	446	3.59	
9 45 44 176 34 102 23 46 14 14 383 3.08 25 125 55 220 17 51 16 32 11 11 439 3.54	α	Improved digestion	27	135	16	64	27	81	53	106	7	7	393	3.16	4
25 125 55 220 17 51 16 32 11 11 439 3.54	4	Energy booster	6	45	44	176	34	102	23	46	14	14	383	3.08	5
	5	Better immunity		125	55	220	17	51	16	32	11	11	439	3.54	2

NR: No. of Respondents; S: Score

Table 2. Consumers perception towards value-added Nutri-cereal products (Nutritional Benefits)

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S S	Particulars	Strongly agree	ngly .ee	Agree	ee.	Neutral	tral	Disagree	;ree	Strongly disagree	ıgly ree	Total	Mean	Rank
	I	NR S	S.	NR	S	NR	S	NR	S	NR	S.	2008		
-	Lower fat	29	145	59	236	17	51	13	26	9	9	464	3.74	3
2	High in protein	47	235	38	152	25	75	∞	16	9	9	484	3.90	7
α	Rice in vitamin content	7	35	20	80	55	165	34	89	∞	∞	356	2.87	4
4	High in fibre	49	320	33	132	6	27	12	24	9	9	509	4.10	1

NR: No. of Respondents; S: Score

Table 3. Consumer perception towards value-added Nutri-cereal products (Special attributes)

જં ટ્રે	Particulars	Strongly agree	ngly ree	$\mathbf{A}\mathbf{g}$	Agree	Neutral	tral	Disagree	gree	Strongly disagree	ngly gree	Total	Mean	Rank
		NR	S	NR	S	NR	N	NR	S.	NR	N	Score		
1	Nutritional value	57	285	41	164	111	33	~	16	7	7	505	4.07	1
2	Freshness	23	115	30	120	51	153	11	22	6	6	419	3.38	4
т	Taste and Flavour	24	120	65	260	17	51	6	18	6	6	458	3.69	С
4	Packaging	55	275	34	136	21	63	%	16	9	9	496	4.00	2
NR: N	NR: No. of Respondents; S: Score	core												

Table 4. Consumer perception towards value-added Nutri-cereal products (Diet and Lifestyle)

Rank		3		2	4
Mean		3.65	3.98	3.83	2.95
Total	Score	453	493	475	366
ngly gree	S	6	∞	∞	6
Strongly disagree	NR	6	∞	∞	6
Disagree	S	28	18	26	99
Disa	NR	14	6	13	33
tral	S	51	57	57	147
Neutral	NR	17	19	19	49
Agree	S	220	120	144	84
,	NR	55	30	36	21
	S	145	290	240	09
Strongly agree	NR	29	58	48	12
Particulars		1 Health supplement	Convenience	Dietary diversity	Staple food
%		1	2	ω	4

NR: No. of Respondents; S: Score

score is calculated by assigning points to responses as follows: "Strongly Agree" is given 5 points, "Agree" is given 4 points, "Neutral" is given 3 points, "Disagree" is given 2 points, and "Strongly Disagree" is given 1 point. The mean score is then calculated by dividing the total score by the total number of respondents. This approach provided a detailed and nuanced understanding of the dataset.

RESULTS AND DISCUSSION

I. Consumer perception towards value added nutricereal products

The data presented in the Table 1 revealed that weight management is the most positively perceived benefit, with the highest mean score of 3.92, followed by better immunity with a mean score of 3.45. Improved health ranks third with a mean score of 3.13. Improved digestion is less favored, with a mean score of 2.98, and energy booster is perceived least favorably, with a mean score of 2.88. These rankings highlight that while weight management and immunity are top priorities, other benefits like digestion and energy boosting are less influential in consumer perception. Similar results were reported by Raju and Rukmani (2012).

The data presented in the Table 2 revealed that rich in vitamin content is the most positively perceived attribute, ranking first with a mean score of 4.10. High in protein follows closely, ranking second with a mean score of 3.90. High in fiber also scores well, with a mean of 3.74, securing the third position. Lower fat content is perceived less favorably, ranking fourth with a mean score of 2.87. These results indicate that consumers prioritize vitamin and protein content in value-added nutri- cereal products, with fiber being important but lower fat content being less of a concern.

The data presented in the Table 3 revealed that nutritional value is the top-rated attribute, with the highest mean score of 4.07, followed by packaging with a mean score of 4.00. Taste and flavor rank third with a mean of 3.69, indicating positive consumer perception. Freshness is perceived moderately, ranking fourth with a mean score of 3.38. These findings suggest that while consumers highly value the nutritional content and packaging of nutri-cereal products, taste and freshness are also important but slightly less prioritized. Similar results were reported by Barratry and Rajapushpam (2018) and Kapoor *et al.*(2023).

The data presented in the Table 4 revealed that convenience is the most positively perceived benefit, ranking first with a mean score of 3.98. Dietary diversity follows closely in second place with a mean score of 3.83. The health supplement attribute is also positively perceived, ranking third with a mean score of 3.65. However, staple food is viewed less favorably, ranking fourth with a mean score of 2.95. These findings highlight that consumers value convenience and dietary diversity in nutri-cereal products, with less emphasis placed on their role as a staple food.

II. Factors influencing the consumer perception towards value added nutri-cereal products

The data presented in Table 5 revealed that the highest mean score (3.15) was obtained for preservation and time-saving factors like they remain fresh for longer periods of time, longer shelf life, saving time in meal preparation, followed by augmentation factors (3.01) like for their consistent and reliable flavour, taste of dishes, texture of the dishes, influential factors (2.96) like they are promoted in favourite cooking shows telecasted on TV shows, attracted to the display of products by retailers,

Table 5. Factors influencing the perception of sample consumers

S. No.	Factors	Mean score	Rank
1	Preservation and time-saving factor	3.15	1
2	Augmentation factor	3.01	2
3	Influential factor	2.96	3
4	Convenience factor	2.85	4
5	Quality factor	2.77	5

promoted by trusted brand ambassadors, suggested by neighbours/friends/relatives, convenience factors (2.85) like due to affordability, ease of availability, available in customer- preferred sizes, and quality factors (2.77) like due to the quality of ingredients used for the preparation of products, non-addition of colours and other adulterated ingredients, ingredient transparency is known. Thus, preservation and time-saving factors were very important factors influencing consumer perception of sample consumers towards value-added nutri-cereal products. Similar results were reported by Indumathy and Jeyalakshmi (2014) and Mohan *et al.* (2021).

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