

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 9; September 2026; Page No. 87-96

Received: 07-07-2026
Accepted: 10-08-2026

Indexed Journal
Peer Reviewed Journal

Purchase intention towards functional snacks among Gen z consumers: Determinants and Marketing implications

¹ Saisree S, ² Prabhavathi Y, ³ Sarada O and ⁴ Dhanasree K

¹ Student, Department of Agribusiness Business Management, Acharya NG Ranga Agricultural University, Andhra Pradesh, India

² Assistant professor, Department of Agribusiness Management, Acharya NG Ranga Agricultural University, Andhra Pradesh, India

³ Principal Scientist, Department of Agricultural extension, Acharya NG Ranga Agricultural University, Andhra Pradesh, India

⁴ Associate professor, Department of Extension Education and Communication Management, Acharya NG Ranga Agricultural University, Andhra Pradesh, India

DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i9b.4172>

Corresponding Author: Saisree S

Abstract

Growing awareness of health and nutritional well-being, changing lifestyles and increasing demand for convenient food options have contributed to the growing interest in functional snacks, particularly among younger consumers. Gen Z has emerged as an important consumer segment, with food choices influenced by health consciousness, ingredient transparency, sensory appeal, affordability, brand trust, social media and digital influences. Against this background, the present study examined the factors influencing purchase decisions towards functional snacks among Gen Z consumers in Andhra Pradesh and Telangana. Primary data were obtained from 120 Gen Z respondents through a structured questionnaire and analyzed using descriptive statistics, Exploratory Factor Analysis and multiple linear regression. The findings revealed variations in awareness and consumption across functional snack categories, with protein-based snacks recording the highest awareness and consumption frequency, followed by omega-3 enriched and probiotic/prebiotic snacks. High price compared with regular snacks and limited availability were identified as major barriers to purchase. Exploratory Factor Analysis identified six underlying dimensions, namely Health oriented ingredient selection, Social Media and Marketing Influence, Taste and Sensory Appeal, Price, Value and Safety Concerns, AI/Digital Influence and Brand Trust. Together, these factors explained 69.54 percent of the total variance. Multiple linear regression confirmed that all six factors had a positive and significant influence on purchase intention, with the model explaining 51.0 percent of the variation in purchase decision (Adjusted $R^2 = 0.484$; $F = 19.598$; $p < 0.001$). Health and Ingredient Consciousness emerged as the strongest predictor ($\beta = 0.415$; $p < 0.001$), followed by Taste and Sensory Appeal ($\beta = 0.358$) and Social Media and Marketing Influence ($\beta = 0.283$). Influence-agreement mapping indicated Health oriented ingredient selection as the core strength and Taste and Sensory Appeal as a key strength, while Social Media and Marketing Influence emerged as a priority driver. The marketing-mix analysis suggested that businesses should strengthen health and ingredient-based product positioning, improve taste and product variety, introduce affordable price-pack combinations, expand organized retail and online availability, and employ social-media-led promotional strategies. These measures could enhance consumer acceptance, purchase intention and market penetration of functional snacks among Gen Z consumers.

Keywords: Functional snacks, Gen Z consumers, purchase intention, consumer behavior, exploratory factor analysis, influence agreement mapping, marketing mix

1. Introduction

Functional foods emerged as a distinct concept in Japan during the 1980s, particularly with the introduction of the Foods for Specified Health Uses (FOSHU) framework, which expanded the traditional understanding of food to include its potential role in promoting health and physiological well-being. These foods contain components such as proteins, vitamins, minerals, dietary fiber, probiotics, antioxidants and omega-3 fatty acids that may provide health benefits beyond basic nutritional requirements. Functional snacks represent a convenient application of this concept, offering products such as protein bars, fiber-rich snacks, probiotic foods, fortified products and reduced-sugar

alternatives. Their growing importance has been driven by changing lifestyles, increased snacking habits and rising consumer preference for convenient food options that combine nutrition with health benefits.

The global market for functional snacks has expanded considerably as consumers have become more conscious of health, nutrition and preventive well-being. Rising interest in products offering benefits related to energy, digestive health, immunity, weight management and overall wellness has encouraged food manufacturers to develop more specialized snack products. In 2021, the global functional food market was valued at approximately USD 280.70 billion and is expected to exceed USD 586.10 billion by 2030 (Grand View

Research, 2022)^[7]. Functional snacks are increasingly differentiated according to their nutritional composition and intended benefits. The plant-based snacks are growing at an annual rate of around 8-10 percent, while protein-based snacks make up nearly 25-30 percent of the functional snack market. The growing availability of these alternatives reflects a broader shift towards personalized nutrition, where consumers increasingly seek products that address specific dietary and lifestyle requirements.

India has also witnessed growing interest in functional foods and health-oriented snacks due to urbanization, changing dietary habits, rising incomes and increasing awareness of nutrition.. The national functional foods market was valued at USD 13,024.30 million in 2023 and is estimated to reach USD 25,379.10 million by 2030, growing at a compound annual rate of about 10 per cent (Grand View Research, 2024)^[8]. The expansion of modern retail, e-commerce and direct-to-consumer food businesses has further improved consumer access to health-oriented products.

Consumer choices in the Indian snack market are increasingly influenced by factors beyond taste and convenience. The Indian snacks market is projected to reach INR 103,556.03 crore by 2034, registering a CAGR of 8.28 per cent during 2026-2034 (IMARC Group, 2025)^[9]. Health benefits, protein content, ingredient quality, affordability, product information and naturalness are becoming relevant considerations in food selection. At the same time, consumers continue to expect functional products to provide acceptable taste, convenient formats and reasonable value for money (Topolska *et al.*, 2021)^[13]. This creates opportunities for manufacturers to develop products that balance nutritional functionality with sensory appeal and affordability.

In states of Andhra Pradesh and Telangana the regional functional snack market is growing rapidly because of increased health consciousness, changing consumption patterns and demand for convenient food options in major cities such as Hyderabad, Visakhapatnam and Vijayawada show strong consumption patterns among professionals and students who prefer ready-to-eat foods. The presence of large student and working populations, expanding retail networks and increasing use of digital food platforms provides opportunities for convenient and nutritionally enhanced snack products. Millet-based snacks, nut and seed products, protein-rich foods, roasted snacks and other value-added products may be particularly relevant to consumers seeking convenient alternatives.

Generation Z, generally defined as individuals born between 1997 and 2012, in India this segment accounts for nearly 27 per cent of the population constitutes an important emerging consumer segment for functional snacks. Gen Z consumers' food choices are influenced by factors such as health awareness, convenience, taste, affordability, ingredient transparency and brand trust (Chen *et al.*, 2025)^[5]. Their product discovery and evaluation are also shaped by social media, online reviews, influencers and peer recommendations, highlighting the importance of effective digital communication and clear product information in engaging this consumer segment.

With this background, the present study focused on the purchase intention towards functional snacks among Gen Z consumers in Andhra Pradesh and Telangana. The study aimed to identify the key factors influencing purchase

intention, examine identified factors influence through regression analysis and develop suitable marketing strategies for enhancing the purchase and market penetration of functional snacks. The findings are expected to provide useful insights for food manufacturers, marketers and retailers in designing products, pricing approaches and promotional strategies that are better aligned with the expectations of Gen Z consumers.

2. Materials and methods

2.1 Study Area

The study was carried out in states of Andhra Pradesh and Telangana, India, with the objective of examining the factors influencing the purchase behavior of Generation Z consumers towards functional snacks.

2.2 Research Design and Sampling

A quantitative research design with descriptive and analytical approaches was adopted. A total sample of 120 respondents was obtained using convenience and snowball sampling techniques.

2.3 Data Collection

Primary data was collected through a structured interview schedule designed to capture information on respondents demographic characteristics, awareness and familiarity with functional snacks, consumption patterns, perceptions and factors influencing their purchase behavior. Consumer perceptions were measured using statements on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

2.4 Measurement Framework

The questionnaire contained 35 perception statements initially grouped into nine conceptual dimensions: Taste and Sensory Appeal; Health Consciousness; Ingredient Dominance and Transparency; Brand Trust; Labelling, Packaging and Sustainability; AI-driven Recommendations and Digital Influence; Peer and Social Influence; Company Promotions and Convenience; Perceived Value, Affordability and Risk. The measurement items were evaluated for internal consistency and subsequently subjected to exploratory factor analysis to identify the underlying dimensions (Annunziata and Vecchio, 2011)^[2].

2.5 Data Analysis

The data was analyzed using descriptive and inferential statistical techniques. Descriptive statistics were used to summarize the respondents' demographic characteristics, awareness, consumption patterns and preferences for different functional snack categories. The adequacy of the data for factor analysis was examined using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity.

Exploratory factor analysis was conducted using the Principal component analysis with varimax rotation to identify the underlying factors associated with consumers perceptions of functional snacks. Multiple linear regression analysis was employed to assess the influence of the extracted factors on purchase intention, while standardized beta coefficients were used to determine their relative contribution(Çelik and Gül, 2025)^[4].

3. Results and discussions

Table 3.1: Socio economic profile of respondents

S.No	Socio Economic profile		Frequency	Percentage
1	Gender	Male	69	57.50
		Female	51	42.50
2	Age group (years)	14-17 years	21	17.50
		18-21 years	18	15.00
		22-25 years	54	45.00
		26-29 years	27	22.50
3	Educational qualification	Secondary Schooling	10	8.33
		Intermediate	16	13.33
		Graduation	44	36.67
		Post graduation & above	50	41.67
4	State	Telangana	81	67.50
		Andhra Pradesh	39	32.50
5	Type of place of residence	Rural village	28	23.33
		Semi urban / mandal headquarters	14	11.67
		Other urban area (municipality / town)	37	30.83
		Metro / large city	41	34.17
6	Occupation	Student	69	57.50
		Employee (Private / Government)	34	28.33
		Aspirant	5	4.17
		Job seeker	5	4.17
		Professional (Doctor, CA, etc.)	4	3.33
		Business / Self employed	3	2.50
7	Monthly income	No income	69	57.50
		Below ₹ 25,000	17	14.17
		₹ 25,000 - ₹ 50,000	20	16.67
		₹ 50,000 - ₹ 100,000	11	9.17
		Above ₹ 100,000	3	2.50

Note: The study was conducted with a total sample size of 120 respondents (n = 120).

The socio-demographic profile indicated that males constituted the majority of respondents, accounting for 57.50%, while females accounted for 42.50%. The 22-25 years age group was predominant, representing 45.00% of the respondents, followed by 26-29 years with 22.50%. In terms of education, a larger proportion had post-graduation and above, accounting for 41.67%, followed by graduation with 36.67%, indicating a relatively highly educated sample. Most respondents were from Telangana, comprising 67.50%, while Andhra Pradesh accounted for 32.50%. Regarding residence, metro/large-city respondents formed the largest group with 34.17%, followed by those from other urban areas with 30.83%. Students constituted the majority of respondents, accounting for 57.50%, followed by private/government

employees with 28.33%. Correspondingly, 57.50% of respondents reported having no income, while among those earning an income, the largest group earned ₹25,000-₹50,000 per month, accounting for 16.67%. Thus, it can be inferred that the sample was predominantly composed of young, highly educated and urban respondents, with a higher representation from Telangana and students forming the major occupational group. The relatively high proportion of respondents without personal income further indicated that a substantial share of the sample was financially dependent, which could have implications for their price sensitivity and purchase decisions regarding functional snacks (Baker *et al.*, 2022) [3].

Table 3.2: Types of functional snacks known to sample respondents

S.No.	Category of functional snack	Type of functional snack	Frequency	Percentage
1	Protein based snacks	protein bars, high-protein chips, high-protein laddus, protein cookies	105	87.50
2	Fiber enriched snacks	high-fiber biscuits/crackers, granola bars, multigrain khakra	66	55.00
3	Probiotic / prebiotic snacks	probiotic yogurt cups, probiotic drinks in snack bottles, fermented drink shots	63	52.50
4	Functional RTD beverages	protein shakes, vitamin water, electrolyte drinks	61	50.83
5	Omega-3 enriched snacks	walnut and flaxseed mixes, chia-seed clusters, seed/millet nut mixes	60	50.00
6	Low calorie / reduced sugar snacks	diet namkeen, baked chips, sugar-free cookies, zero-sugar bars	57	47.50
7	Plant based / clean label snacks	vegan bars, millet-based snacks, minimally processed "natural" snacks	54	45.00
8	Vitamin and mineral fortified snacks	fortified biscuits, breakfast cereals, energy bites	51	42.50

Protein-based snacks had the highest level of awareness among the respondents, with 87.50 per cent reporting familiarity with the category. In contrast, vitamin and mineral fortified snacks recorded the lowest awareness at 42.50 per

cent (Ali and Rahut, 2019)^[1], suggesting that awareness was relatively higher for more established functional snack categories (Vella *et al.*, 2014)^[14].

Table 3.3: Consumption frequency distribution of sample respondents across functional snack categories

S.No.	Frequency (in days)	Protein based	Fiber enriched	Probiotic / prebiotic	Omega-3 enriched	Vitamin & mineral fortified	Low calorie / reduced sugar	Plant based / clean label	Functional RTD
1	Never	12 (10.00%)	18 (15.00%)	27 (22.50%)	27 (22.50%)	24 (20.00%)	28 (23.33%)	43 (35.83%)	31 (25.83%)
2	Occasionally	47 (39.17%)	39 (32.50%)	26 (21.67%)	27 (22.50%)	32 (26.67%)	27 (22.50%)	21 (17.50%)	26 (21.67%)
3	Monthly	8 (6.67%)	14 (11.67%)	20 (16.67%)	17 (14.17%)	19 (15.83%)	17 (14.17%)	15 (12.50%)	21 (17.50%)
4	Bi-weekly	15 (12.50%)	14 (11.67%)	14 (11.67%)	14 (11.67%)	15 (12.50%)	25 (20.83%)	17 (14.17%)	20 (16.67%)
5	Weekly	27 (22.50%)	29 (24.17%)	15 (12.50%)	19 (15.83%)	21 (17.50%)	12 (10.00%)	14 (11.67%)	12 (10.00%)
6	Daily	11 (9.17%)	6 (5.00%)	18 (15.00%)	16 (13.33%)	9 (7.50%)	11 (9.17%)	10 (8.33%)	10 (8.33%)

Note: Due to multiple responses frequencies and percentages computed do not sum to sample of 120 and 100.00 respectively

The occasional consumption was the most preferred common consumption pattern across most functional snack categories. Protein-based and omega-3 enriched snacks showed comparatively higher levels of regular consumption, whereas

plant-based and clean-label snacks recorded the highest proportion of respondents who had never consumed. Thus, it can be inferred that these products had not yet become a regular part of their snacking habits.

Table 3.4: Mean consumption-frequency score and rank order of functional snack categories

S.No.	Functional snack category	Mean score	Rank
1	Protein based snacks	3.26	I
2	Omega-3 enriched snacks	3.16	II
3	Probiotic / prebiotic snacks	3.15	III
4	Fiber enriched snacks	3.12	IV
5	Vitamin & mineral fortified snacks	3.03	V
6	Low calorie / reduced sugar snacks	2.99	VI
7	Functional RTD beverages	2.88	VII
8	Plant based / clean label snacks	2.73	VIII

Protein-based snacks recorded the highest mean consumption frequency of 3.26, while plant-based and clean-label snacks recorded the lowest mean of 2.73. This suggested that

consumption frequency was relatively higher for categories that also demonstrated greater consumer awareness.

Table 3.5: Problems encountered by sample respondents while purchasing functional snacks

S.No.	Problem encountered	Frequency	Percentage
1	Too expensive compared to regular snacks	77	64.17
2	Not easily available near my place	52	43.33
3	Limited variety or flavors available	44	36.67
4	Do not fully trust the health or nutrition claims on the package	37	30.83
5	Not sure which products / brands are really good for health	34	28.33
6	Taste is not as good as regular snacks	28	23.33
7	Label does not clearly show nutritional or ingredient information	20	16.67
8	Do not find suitable pack sizes	20	16.67
9	Short shelf life or concern about freshness	16	13.33

High prices compared with regular snacks were the most frequently reported barrier, cited by 64.17 per cent of respondents. Do not fully trust the health or nutrition claims on the package accounted for 30.83 percent (González-Díaz

et al., 2020)^[6]. Limited availability near the place of residence was the second major barrier at 43.33 per cent, highlighting affordability and accessibility as important constraints to wider adoption (Jain *et al.*, 2017).^[10]

Table 3.6: Kaiser-Meyer-Olkin and Bartlett's test

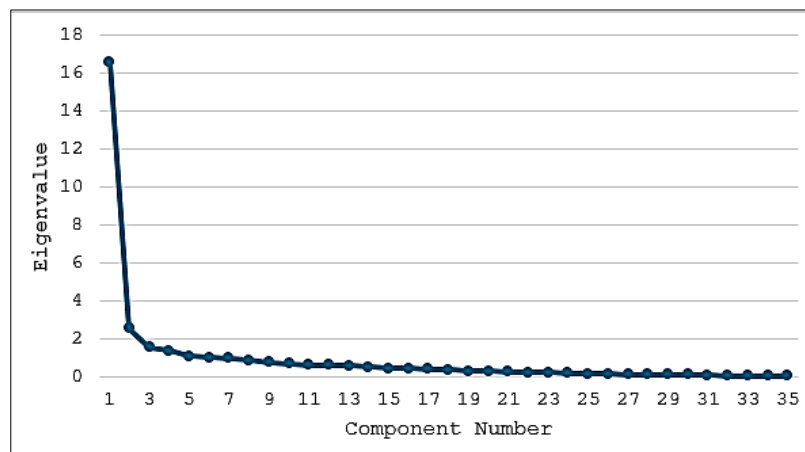
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.906
Bartlett's Test of Sphericity	Approx. Chi-Square	3460.663
	df	595
	Sig.	0.000

The KMO value of 0.906 demonstrated excellent sampling adequacy. Bartlett's Test of Sphericity was also statistically

significant at $p < 0.001$, confirming that the correlation matrix was appropriate for conducting factor analysis

Table 3.7: Total variance explained - Principal component analysis

S.No	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative%
1	16.587	47.391	47.391	16.587	47.391	47.391	5.537	15.820	15.820
2	2.591	7.404	54.795	2.591	7.404	54.795	4.687	13.392	29.212
3	1.592	4.548	59.343	1.592	4.548	59.343	4.246	12.130	41.343
4	1.388	3.964	63.307	1.388	3.964	63.307	3.523	10.065	51.407
5	1.128	3.222	66.529	1.128	3.222	66.529	3.264	9.325	60.733
6	1.052	3.007	69.536	1.052	3.007	69.536	3.081	8.803	69.536
7	0.990	2.828	72.364						
8	0.905	2.586	74.950						
9	0.776	2.217	77.167						
10	0.714	2.041	79.208						
11	0.660	1.885	81.093						
12	0.652	1.862	82.955						
13	0.601	1.718	84.674						
14	0.545	1.558	86.232						
15	0.485	1.384	87.616						
16	0.452	1.290	88.906						
17	0.427	1.219	90.125						
18	0.385	1.099	91.224						
19	0.338	0.966	92.190						
20	0.323	0.924	93.114						
21	0.296	0.846	93.960						
22	0.264	0.754	94.715						
23	0.251	0.717	95.431						
24	0.221	0.630	96.061						
25	0.199	0.567	96.629						
26	0.177	0.506	97.135						
27	0.164	0.469	97.604						
28	0.150	0.428	98.032						
29	0.143	0.408	98.440						
30	0.135	0.385	98.825						
31	0.103	0.294	99.119						
32	0.092	0.264	99.383						
33	0.080	0.229	99.612						
34	0.076	0.218	99.829						
35	0.060	0.171	100.000						

**Fig 3.1:** Scree plot

From the Fig.3.1 it is observed that the curve begins to flatten from the seventh component onwards, with the first six components lying above the eigenvalue-one criterion (dashed

line). Thus, it can be inferred that six factors were appropriate for retention and were accordingly used for further analysis of the 35 statements

Table 3.8: Rotated component matrix

	Component					
	1	2	3	4	5	6
I prefer functional snacks that contain minimal artificial additives or preservatives.	0.770					
I prefer snacks containing ingredients that I recognize and understand.	0.765					
The presence of functional ingredients influences my purchase decision.	0.753					
I prefer snacks that provide health benefits beyond basic nutrition	0.737					
I read ingredient labels to check for components like protein, fiber, probiotics etc.	0.662					
I actively look for healthier snack options in my daily diet.	0.658					
I choose functional snacks as they support my long term health goals.	0.559					
I feel guilty when I eat snacks that are not healthy.	0.548					
Clear nutritional information and claims on packaging influence my choice	0.444					
I am more likely to try a functional snack if it is recommended through social media.		0.719				
I often see functional snacks on social media and get interested in trying them		0.648				
Free samples or trial packs influence my purchase decision.		0.637				
Attractive packaging design makes me more likely to buy a functional snack.		0.619				
Loyalty rewards or points encourage me to repurchase functional snacks.		0.547				
I prefer functional snacks that use eco friendly or recyclable packaging.		0.529				
Home delivery (10-30 minutes) make me more likely to order functional snacks.		0.527				
Discounts and promotional offers motivate me to try functional snacks.		0.444				
If prices reduce, I will increase my purchase of functional snacks.			0.773			
I am concerned about the long term safety of consuming many functional snacks.			0.726			
I feel that functional snacks offer good value for the price I pay.			0.719			
I am willing to pay a higher price for functional snacks that have clear health benefits.			0.706			
Recommendations from friends and family affect my purchase decision.			0.517			
The taste of functional snacks is important in my purchase decision.				0.770		
I prefer functional snacks that are similar in taste to my regular snacks.				0.770		
The texture (crunchy, soft, chewy) of functional snacks influences me to buy them.				0.733		
The aroma and appearance of functional snacks affect my preference.				0.647		
If the package looks modern and premium I am more likely to buy a functional snack				0.463		
AI recommendations on apps or e commerce platforms influence my snack choices.					0.819	
Online ratings and reviews affect whether I try a new functional snack.					0.739	
Personalized suggestions on apps help me discover new functional snack products.					0.684	
I am influenced by “recommended for you” or “bestseller” tags on shopping apps.					0.612	
I trust brands that make health claims on functional snacks.						0.784
I believe trusted brands are more reliable in delivering quality functional snacks.						0.675

Brand reputation affects my decision to buy functional snacks.						0.640
I am more comfortable buying functional snacks from brands that I have used before.						0.462

The measurement items showed factor loadings above 0.44 with minimal cross-loadings. The results supported a clear six-factor structure comprising Health oriented Ingredient

selection, Social Media and Marketing Influence, Price, Value and Safety, Taste and Sensory Appeal, Digital Influence, and Brand Trust.

Table 3.9: Benefits derived by consumers on purchasing Functional Snack

Sl. No.	Factors	Mean Score	Rank
1	Health oriented Ingredient selection	3.482	I
2	Brand Trust	3.480	II
3	Taste and Sensory Appeal	3.432	III
4	Social Media and Marketing Influence	3.389	IV
5	Price, Value and Safety Concerns	3.386	V
6	AI-Driven Recommendations and Digital Influence	3.185	VI

The health oriented Ingredient selection factor recorded the highest mean score of 3.482 and was ranked first (Žurek *et al.*, 2026) ^[15], followed closely by Brand Trust with a mean

of 3.480 and Taste and Sensory Appeal with a mean of 3.432. AI-Driven Recommendations recorded the lowest mean score of 3.185, indicating comparatively lower agreement with this dimension.

Table 3.10: Multiple linear regression model summary

S.No	Statistic	Value
1	R	0.714
2	R Square (R ²)	0.510
3	Adjusted R Square	0.484
4	Std. Error of the Estimate	0.718
5	Durbin-Watson	2.086
6	F-statistic	19.598
7	Significance (p-value)	< 0.001

Regression model was statistically significant with an F-value of 19.598 at $p < 0.001$. The model explained 51.0 per cent of the variation in purchase decision, with an R² of 0.510

and an adjusted R² of 0.484. The Durbin-Watson value of 2.086 indicated that there was no substantial concern regarding autocorrelation in the model.

Table 3.11: Multiple linear regression coefficients - influence of extracted factors on purchase decision towards functional snacks

S. No.	Factor (Predictor Variable)	Unstd. B	Std. Error	Standardised Beta (β)	t-value	Sig. (p-value)	Rank
1	Health oriented Ingredient selection	0.415	0.066	0.415	6.301	< 0.001**	I
2	Social Media and Marketing Influence	0.283	0.066	0.283	4.298	< 0.001**	III
3	Taste and Sensory Appeal	0.358	0.066	0.358	5.429	< 0.001**	II
4	Price, Value and Safety Concerns	0.228	0.066	0.228	3.458	< 0.001**	IV
5	AI/Digital Influence	0.164	0.066	0.164	2.484	0.014*	VI
6	Brand Trust	0.226	0.066	0.226	3.436	< 0.001**	V

The six identified factors significantly influenced purchase decision. Health oriented Ingredient selection emerged as the strongest predictor with a standardized beta coefficient of 0.415 (Nguyen *et al.*, 2020) ^[11], followed by Taste and

Sensory Appeal with 0.358 and Social Media and Marketing Influence with 0.283. The findings highlighted the importance of health-related attributes, sensory appeal and digital marketing influences in shaping purchase decisions.

Table 3.12: Influence-Agreement Mapping of purchase decision factors for functional Snacks

S. No.	Factor (Predictor Variable)	Agreement mean	Agreement Rank	Standardized Beta (β)	Influence Rank	Mapping Classification
1	Health and Ingredient Consciousness	3.482	I	0.415	I	High Agreement - High Influence (Core Strength)
2	Social Media and Marketing Influence	3.389	IV	0.283	III	Moderate Agreement - High Influence (Priority Driver)

3	Taste and Sensory Appeal	3.432	III	0.358	II	High Agreement - High Influence (Key Strength)
4	Price, Value and Safety Concerns	3.386	V	0.228	IV	Moderate Agreement - Moderate Influence (Supporting Factor)
5	AI/Digital Influence	3.185	VI	0.164	VI	Low Agreement - Low Influence (Low-Priority Factor)
6	Brand Trust	3.480	II	0.226	V	High Agreement - Moderate Influence (Reinforcing Factor)

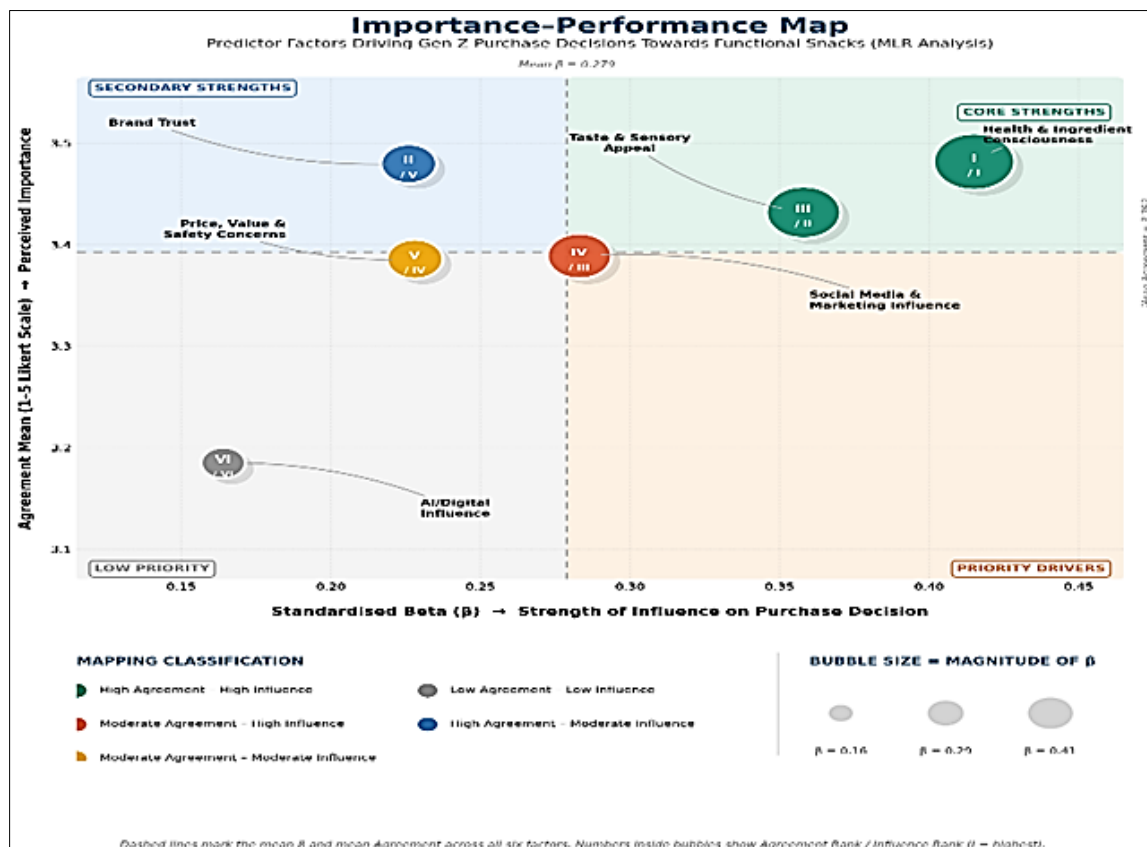


Fig 3.2: Agreement mapping for functional foods

Table 3.12 and Fig 3.2 indicated a difference between the respondents stated level of agreement and the actual predictive influence of certain factors. Brand Trust ranked second in terms of agreement but fifth in terms of predictive influence, whereas Social Media Influence ranked third in

predictive influence despite having a comparatively moderate level of agreement. This indicated that factors perceived as important by consumers did not necessarily exert the strongest influence on their purchase decisions (Osunsanmi *et al.*, 2024) ^[12].

Table 3.13: Marketing-mix implications for functional snacks

S.No.	Mix element	Key finding	Strategic implication
1	Product	Protein-based snacks dominate both awareness (87.5%) and consumption (rank I); fiber, probiotic/prebiotic and omega-3 snacks are also well recognized; plant-based/clean-label and vitamin-mineral fortified snacks remain low-awareness niches; health/ingredient consciousness ($\beta = 0.415$) and taste/sensory appeal ($\beta = 0.358$) are the strongest predictors of purchase intention	Anchor core SKUs in protein-based formats and lead communication with health/ingredient credentials; treat plant-based/clean-label and vitamin-mineral fortified lines as niche categories needing awareness-building rather than immediate scale-up; address taste and variety gaps to convert awareness into regular consumption
2	Price	₹25-50 with 25-50 g packs is the preferred price-pack combination for solid snacks; ₹40-60 with 150-250 ml packs for functional drinks; high price is the single largest purchase barrier (64.2%); price/value/safety concerns exert a moderate but significant influence on purchase intention ($\beta = 0.228$)	Tier pricing and pack size jointly by product form (solid vs. drink) around these preferred bands rather than a flat price-pack combination across the range; introduce smaller, competitively priced packs to widen access for price-sensitive segments

3	Place	Supermarkets/hypermarkets dominate purchase (74.2%); online grocery apps (BigBasket, Zepto, Instamart) are now a mainstream channel (53.3%); kirana stores and e-commerce sites provide secondary reach; limited availability near residence is the second-biggest purchase barrier (43.3%)	Prioritise organised retail (supermarket/hypermarket) listings while expanding kirana and quick-commerce/online-grocery presence to close the availability gap, particularly outside metro and large-city markets
4	Promotion	Social media (75.8%) and friends/family (47.5%) outweigh formal advertising as awareness sources; influencer/fitness pages and online ads reinforce digital reach; the social media and marketing-influence factor shows high predictive impact ($\beta = 0.283$) despite only moderate agreement; brand trust runs high, with large/national brands preferred (39.2%) as a trust proxy	Invest in social-media-led and referral/word-of-mouth campaigns as the primary growth lever; reinforce with credible branding, certification cues and influencer/health-professional endorsements to sustain and deepen brand trust

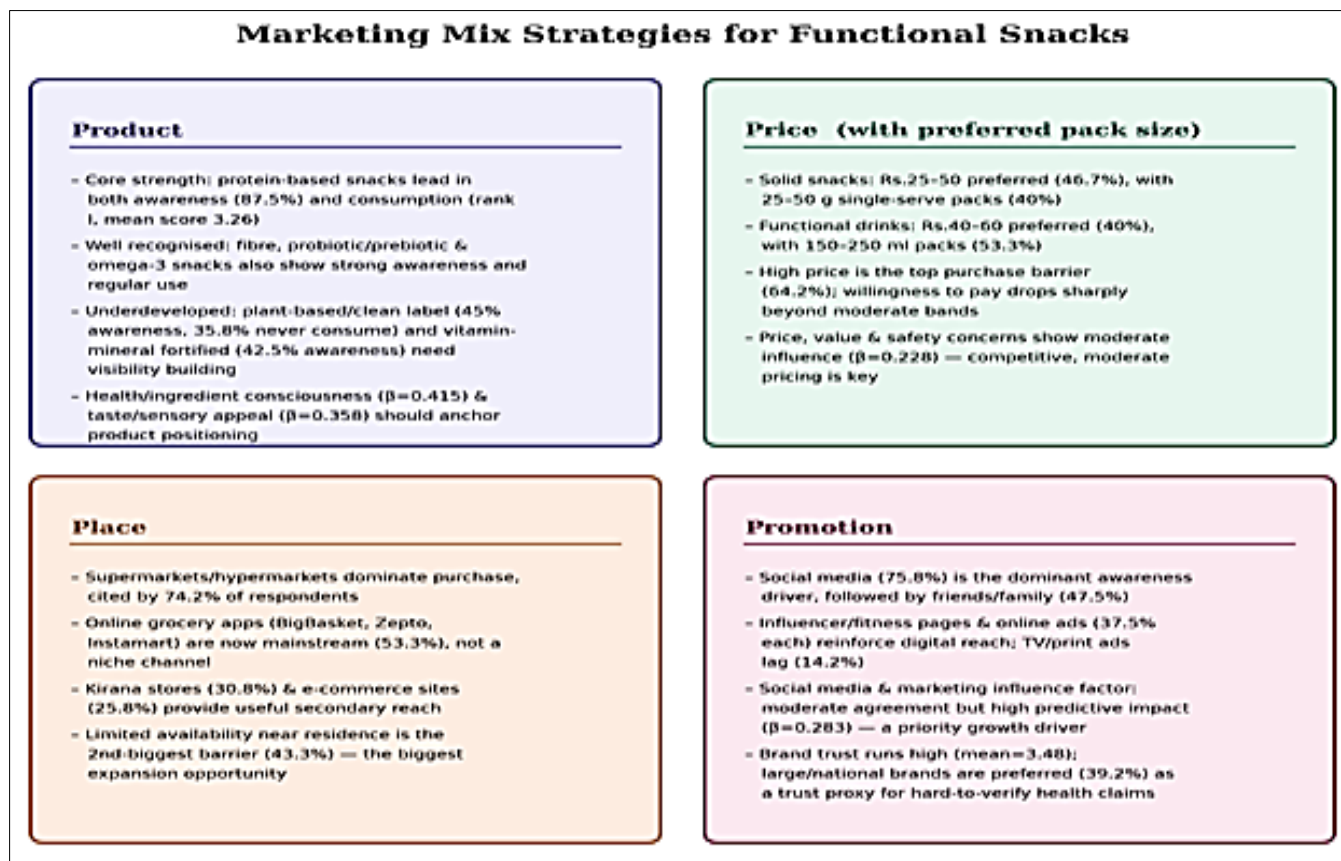


Fig 3.3: Marketing-mix (4Ps) strategies for functional snacks

Table 3.28 and Fig 3.3 indicated that the findings translated into specific implications across the four elements of the marketing mix. Product strategies could emphasize health and ingredient credibility along with taste, while price and pack-size strategies could improve affordability and accessibility. Organized retail and online grocery channels could be strengthened for distribution, while social media-based promotion could be used to encourage product awareness, trial and repeat purchase

Conclusion: The study concluded that Gen Z consumers purchase intention towards functional snacks was influenced by a combination of health-related, sensory, social and brand-related factors. Health oriented Ingredient selection emerged as the strongest determinant of purchase intention, followed by Taste and Sensory Appeal, Social Media and Marketing Influence indicating that consumers considered both functional benefits and product experience while making

purchase decisions. The regression results confirmed that the identified factors significantly influenced purchase intention. Based on these findings, functional snack companies should emphasise credible health and ingredient communication, appealing taste, affordable pricing, convenient pack sizes, wider retail and online availability, and targeted social media promotions to enhance purchase and strengthen market penetration among Gen Z consumers.

References

1. Ali A, Rahut DB. Healthy foods as proxy for functional foods: consumers' awareness, perception, and demand for natural functional foods in Pakistan. *International Journal of Food Science*. 2019;2019:6390650. DOI:10.1155/2019/6390650.
2. Annunziata A, Vecchio R. Factors affecting Italian consumer attitudes toward functional foods. *AgBioForum*. 2011;14(1):20-32.

3. Baker MT, Lu P, Parrella JA, Leggette HR. Consumer acceptance toward functional foods: a scoping review. *International Journal of Environmental Research and Public Health*. 2022;19(3):1217. DOI:10.3390/ijerph19031217.
4. Celik H, Gul A. Factors shaping functional food purchase and consumption intention: insights from the Eastern Mediterranean region of Turkiye. *European Journal of Ecology, Biology and Agriculture*. 2025;2(1):62-81.
5. Chen X, Zhang XE, Yin J, Chen J, Lin H. How does perceived value influence functional snack consumption intention: an empirical analysis based on generational differences. *Foods*. 2025;14(22):3879. DOI:10.3390/foods14223879.
6. Gonzalez-Diaz C, Vilaplana-Aparicio MJ, Iglesias-Garcia M. How is functional food advertising understood? An approximation in university students. *Nutrients*. 2020;12(11):3312.
7. Grand View Research. Functional foods market size, share and trends analysis report by ingredient, by product, by application, by region, and segment forecasts, 2022-2030. 2022.
8. Grand View Research. India functional foods market size and outlook, 2023-2030. 2024.
9. International Market Analysis Research and Consulting (IMARC) Group. India healthy snacks market: size, outlook and forecast. 2025.
10. Jain S, Sharma K, Khadke M. Consumer behavior towards functional foods in India: a study of market drivers and challenges. *IOSR Journal of Business and Management*. 2014;19(11):33-40.
11. Nguyen N, Nguyen HV, Nguyen PT, Tran VT, Nguyen HN, Nguyen TMN, Cao TK, Nguyen TH. Some key factors affecting consumers' intentions to purchase functional foods: a case study of functional yogurts in Vietnam. *Foods*. 2020;9(1):24. DOI:10.3390/foods9010024.
12. Osunsanmi AS, Ayandibu AO, Heeralal S. Assessing the factors that influence consumer's purchase behavior towards functional foods. *International Journal of Research in Business and Social Science*. 2024;13(2):39-49. DOI:10.20525/ijrbs.v13i2.3192.
13. Topolska K, Florkiewicz A, Filipiak-Florkiewicz A. Functional food consumer motivations and expectations. *International Journal of Environmental Research and Public Health*. 2021;18(10):5327.
14. Vella MN, Stratton LM, Sheeshka J, Duncan AM. Functional food awareness and perceptions in relation to information sources in older adults. *Nutrition Journal*. 2014;13(1):44.
15. Zurek J, Rudy M, Dziki D. Consumer choices in the functional food market: a review of determinants of purchasing behavior. *Foods*. 2026;15(8):1319. DOI:10.3390/foods15081319.