

CHAPTER 7

Does Nutritional Value Influence Consumer Buying Behavior?

Radhika Itgekar and Shailaja Hiremath***

ABSTRACT

Amid increasing health concerns and growing interest in nutrition among Indian consumers, this study explores how people in Belagavi, Karnataka understand and respond to front-of-pack nutrition labels (FOPL) and how these labels shape their buying choices. A structured survey was administered to 102 respondents, and the results were examined using descriptive tools along with chi-square tests in Jamovi and Excel. The descriptive analysis helped outline basic demographic patterns, the extent to which shoppers look at labels, and their general attitudes toward nutritional details. The chi-square findings indicate that consumers who are more aware of FOPL tend to make more informed and health-oriented purchase decisions, particularly within younger and better-educated groups. Despite this, many participants still struggle with limited understanding of label elements due to complex formats, inconsistent presentation, and minimal awareness campaigns. The study suggests the need for clear, standardized, and easy-to-interpret labeling supported by targeted educational initiatives. Strengthening consumer nutrition literacy can enable more responsible food choices and support policy efforts aimed at improving public health in urban Indian settings.

Keywords: Front-of-pack labeling; Consumer behavior; Nutritional value awareness; Food labeling; Health-conscious purchasing.

1.0 Introduction

Growing knowledge of health and wellness has played a major role in the dramatic alteration of consumer behaviour in the food business in recent decades. Consumers are starting to give more weight to the nutritional value of the foods they eat as lifestyle diseases including obesity, diabetes, and cardiovascular ailments become more common worldwide (World Health Organisation, 2020). In this regard, food packaging increasingly functions as a medium for disseminating health-related information in addition to being a marketing tool, and nutritional labelling has emerged as a critical factor influencing consumer decision-making (Grunert & Wills, 2007).

**Corresponding author; Student, Marketing Department, KLS Institute of Management, Education and Research, Belagavi, Karnataka, India (E-mail: radhikaitgekar07@gmail.com)*

***Professor, MBA Department, KLS Institute of Management, Education and Research, Belagavi, Karnataka, India (E-mail: shailajagh@klsimer.edu)*

Numerous international research have highlighted how nutritional labels influence customer decisions. Numerous international research have highlighted how nutritional labels influence customer decisions. For instance, Campos et al. (2011) contend that customers who are knowledgeable and health-conscious make healthier food choices when they have easy access to nutritional information on packaging. Policies requiring front-of-package labelling, such as calorie counts and warning labels, have been proven to somewhat lower the purchase of unhealthy foods in developed nations (Song et al., 2021). However, it is unclear how well these 18 findings apply to developing countries like India, where a variety of socioeconomic origins affect purchasing power and health literacy.

Customers in India are becoming more conscious of the significance of nutrition and diet. According to studies, urban Indian consumers—especially those in metro areas—are starting to read nutrition labels, while there is still variation in their comprehension and impact on purchasing decisions (Singla, 2010). While Indian consumers are steadily demonstrating interest in low-fat, high-fiber, and low-sugar options, Paul and Bedi (2014) pointed out that variables including price sensitivity, brand trust, and taste preferences sometimes overshadow this enthusiasm. There is little research on consumer behaviour regarding nutritional value in tier-2 cities like Belagavi, despite this increased awareness in urban regions. Belagavi, a fast-growing urban area in Karnataka, reflects a population that is shifting from conventional consumption habits to contemporary, health-conscious decisions. Belagavi provides a unique setting for investigating how nutritional value affects food purchase decisions in non-metropolitan people because of growing exposure to digital media, rising literacy, and easier availability to packaged foods. Furthermore, there are notable differences in nutritional literacy amongst age groups, income levels, and educational backgrounds. Customers who are more health conscious and have a better comprehension of nutrition labels are more likely to make well-informed purchasing decisions, according to Sripathi et al. (2023). However, obstacles like consumer scepticism, label complexity, and lack of standardisation frequently reduce the efficacy of nutritional information (National Academies of Sciences, 2011).

By investigating how nutritional value affects consumer purchasing behaviour in Belagavi, this study seeks to close the current research gap. The study examined 49 knowledge levels, how nutritional information is interpreted, and how it actually affects food choices using primary data gathered from 100 respondents. The results provided policymakers, marketers, and health educators with important information to help them create health communication techniques that are more successful in India's smaller urban markets.

1.1 Statement of the problem

A sizable percentage of Indian customers continue to ignore nutritional value while making food purchases, despite rising health consciousness and government-led programs

encouraging a healthy diet. Although there have been encouraging developments in the use of nutritional labels in metropolitan areas, little study has been done on consumer behaviour in developing urban areas like Belagavi.

The following fundamental issues are the focus of this study:

- Despite the availability of branded food options and increased health hazards, consumers might not give nutritional value top priority when making purchases.
- When compared to metropolitan areas, Belagavi consumers' knowledge and comprehension of nutrition labels is mainly unknown.
- The impact of demographic parameters including age, gender, income, and education on the use of nutritional information while purchasing food goods is not well documented.

1.2 Objectives of the study

This study's main goal was to find out how Belagavi customers' decisions to buy food are influenced by its nutritional content. The particular goals are as follows:

- To determine how much nutritional value affects Belagavi consumers' purchasing decisions.
- To gauge how well consumers comprehend and are aware of nutrition labels on packaged food items. One
- To determine the main demographic factors (age, gender, income, and education) that influence how much weight consumers give to nutritional value.

2.0 Literature Review

Researchers and policymakers are paying more attention to the impact of nutritional value on consumer purchasing behaviour, especially in light of the growing number of health problems associated with unhealthy eating habits. Numerous studies indicate that consumers are growing more aware of what they eat, and that food selections are significantly influenced by nutritional value (Campos et al., 2011). Front-of-package (FOP) and back-of-package labelling, which offers information on calorie content, sugar levels, fat composition, and other important nutrients, is one of the most direct ways nutritional information reaches customers.

The effectiveness of nutrition labels in influencing customer behaviour has been the subject of numerous international research. For example, Temple (2020) observes that FOP labels with warning or traffic-light symbols are more effective than numerical-based systems at directing customers towards healthier solutions. According to a systematic analysis by Cecchini and Warin (2016), customers with less nutritional knowledge likely to make healthier purchases based on interpretive labels (such as Nutri-Score and star ratings) as opposed to non-interpretive labels.

A key factor is the consumer's knowledge and comprehension of these labels. Grunert and Wills (2007) assert that merely putting labels on packaging is insufficient unless consumers are motivated and trained to read and understand them. Awareness is frequently influenced by demographic variables such as age, income, education level, and whether one lives in an urban or rural area (Miller & Cassady, 2012). Although many urban customers in India claimed to read nutritional labels, only a tiny percentage used them to make purchasing decisions, according to a research by Kaur et al. (2021). This is mostly because of the format's complexity and lack of standardisation.

Additionally, consumer behaviour is greatly influenced by label visibility and design. Research indicates that labels with basic messaging, colour coding, and legible fonts work better (Talati et al., 2017). For instance, a study conducted in 59 Mexico showed that warning labels made it easier for customers to recognise harmful products and decreased their inclinations to buy them (Taillie et al., 2020). According to Kanter et al. (2018), research conducted in Kenya revealed that healthy food choices could be influenced by clear labelling, especially among lower-income groups. Furthermore, how consumers perceive nutritional information is influenced by their level of trust in regulatory agencies and companies.

Customers are more likely to take action when they think the information is reliable and supported by health authorities (Campos et al., 2011). Packaging that highlights health advantages or makes use of environmentally friendly materials can strengthen favourable opinions of a company and its goods (Magnier & Schoormans, 2015). In conclusion, the body of research clearly supports the notion that nutritional value has a major impact on customer purchasing decisions, particularly when nutritional data is provided and comprehended. The strength of this influence is moderated by awareness levels and demographic characteristics. In order to increase the influence of nutritional labelling on consumer behaviour, this review emphasises the significance of consumer education, standardised label design, and reliable information.

3.0 Research Methodology

With an emphasis on the function of nutrition labels, health consciousness, and demographic factors, this study attempts to investigate how nutritional value affects customer purchasing behaviour in Belagavi City, Karnataka. A quantitative technique has been used in conjunction with a seven-descriptive study design to address this. This approach is suitable for analysing consumer attitudes, behaviours, and perceptions regarding health-conscious food choices at a particular moment in time (Bryman, 2012).

Belagavi is a rapidly growing tier-2 city with a varied and changing customer base that is more familiar with packaged foods, health messaging, and contemporary shop forms.

Customers in places like Belagavi are becoming more careful of food choices as knowledge of lifestyle-related disorders grows, making this area a perfect place to research the connection between nutritional labels and purchasing decisions.

3.1 Research design

The current study uses a descriptive and quantitative research approach, which is ideal for comprehending and evaluating the attitudes, preferences, and behaviours of consumers. The objective is to characterise Belagavi consumers' present awareness, perception, and use of nutritional information and to ascertain the degree to which nutritional value influences their purchasing decisions. In order to find patterns and links between factors like age, income, health consciousness, and purchasing behaviour, descriptive research makes it possible to gather quantitative data from a particular community. In order to assess the impact and correlations between factors, the quantitative approach enables researchers to collect numerical data via surveys and statistical tools (Creswell & Creswell, 2018).

3.2 Sample design

- *Population:* Customers that regularly purchase FMCG (fast-moving consumer goods) products and live in Belgaum, Karnataka, make up the study's demographic.
- *Sample Frame:* Belgaum citizens who are 18 years of age or older are included in the sampling frame, which is available through internet resources, neighbourhood markets, and retail establishments.
- *Sample Unit:* The sample unit consists of every single Belgaum consumer who buys packaged goods (such as groceries, personal care products, and beverages).
- *Sampling Technique:* Non-Probability Convenience Sampling is used in this investigation. This approach, which tries to gather data from respondents who are easily available, was chosen due to practical time and resource constraints (Etikan, Musa, & 34 Alkassim, 2016).
- *Sample Size Calculation:* The sample size was determined using the ideas of statistical significance and confidence level. To guarantee accurate and legitimate results, a representative sample size of 102 clients is thought to be appropriate. (Ahmad, 2021)
- *Survey Method:* Data was gathered using a structured questionnaire with closed-ended questions and 5-point Likert scale items. Respondents' attitudes, perceptions, and behaviours about nutritional information and its impact on their food purchase decisions are measured using a 5-point Likert scale. Because of its simplicity, ease of response, and applicability for a variety of participants without sacrificing data quality, a 5-point scale is preferred over a 7-point one (Boone & Boone, 2012). It is therefore perfect for both quantitative and descriptive research.

3.3 Data sources

- Primary Data Sources: Google Forms online surveys were used to gather primary data. Sixty
- Secondary Data Sources: Information about consumer behaviour and packaging trends was gathered from government publications, books, industry studies, and scholarly journals.

3.4 Hypothesis

The following theories were investigated in the study:

- H0 (Null): Consumer purchasing behaviour in Belagavi is not substantially influenced by nutritional value.
- H1 (Alternative): In Belagavi, consumers' purchasing decisions are greatly influenced by nutritional value.
- H0 (Null): Food purchase decisions and knowledge of nutrition labels do not significantly correlate.
- H1 (Alternative): Food purchasing decisions and nutrition label awareness are significantly correlated.
- H0 (Null): The emphasis that consumers place on nutritional value is not considerably impacted by demographic characteristics.
- H1 (Alternative): The significance that consumers attach to nutritional value is greatly influenced by demographic characteristics (age, gender, income, and education).

3.5 Data analysis tools

To extract significant insights, a combination of descriptive and inferential statistical approaches were applied to the data gathered from 102 respondents in Belagavi.

- Eight demographic traits and general replies about the significance of nutritional value and consumer purchasing behaviour were summarised using descriptive statistics including mean, percentages, and frequencies.
- To better understand 32 subgroup behaviour, cross-tabulation was used to examine trends and compare responses across several demographic 39 categories (e.g., age, gender, income, occupation, and education).
- The relationship between categorical variables, such as understanding of nutrition labels and their impact on food purchasing decisions, was evaluated using chi-square tests. Additionally, it assisted in examining the connections between demographic factors and the significance of nutritional value.
- By predicting the likelihood that respondents would choose greater levels of agreement (e.g., Strongly Agree vs. Agree, etc.), the Ordinal Logistic Regression test was used to

assess the impact of demographic variables on the 55 4 ordinal dependent variable—nutritional value important.

- Jamovi, an open-source statistical program with an intuitive 51 interface that is perfect for doing ordinal regression, chi-square tests, and descriptive analysis, was used to analyse the data. Data entry, rudimentary cleaning, tabulation, and graphical results presenting (such as charts and tables).

3.6 Limitations of study

Although this study provides insightful information about how nutritional value affects Belagavi consumers' purchasing decisions, it is important to recognise its limitations:

- *Small Sample Size:* Only 100 participants provided comments for the survey, which may not accurately reflect Belagavi's diverse population of 63. Results from a bigger sample might be more broadly applicable (Creswell, 2014).
- *Geographic Limitation:* Because the study was limited to the Karnataka city of Belagavi, the results might not accurately represent consumer behaviour in rural or other areas where access to and understanding of nutritional information may be different (Kumar & Kapoor, 2015).
- *Self-Reported Information:* Self-reported questionnaires were used to gather the data, which may be prone to social desirability bias. In order to appear more health-conscious, respondents may exaggerate their nutritional knowledge or concern (Podsakoff et al., 2003).
- *Cross-Sectional Design:* The study does not account for behavioural changes over time or demonstrate causal linkages because it is cross-sectional and records answers at a particular moment in time (Bryman, 2012).
- *Emphasis on Packaged Foods:* Since fresh produce, street food, and unlabelled foods make up a sizable amount of the Indian diet, the study's focus on packaged food products prevents it from adequately capturing purchasing behaviour related to these items (Kumar & Kapoor, 2015).

4.0 Data Analysis

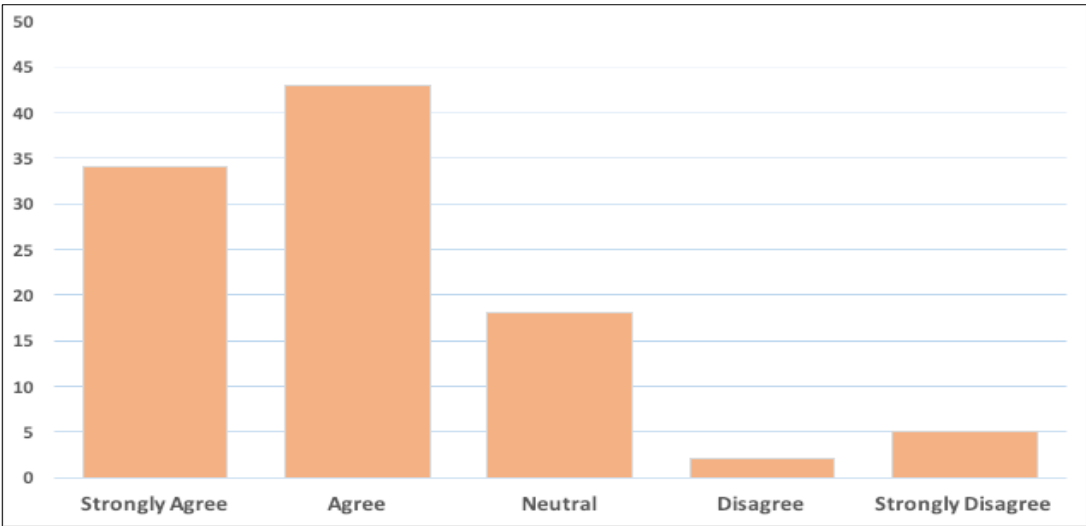
4.1 Importance of nutritional value in consumer purchase decisions

To understand the extent to which nutritional value affects consumer behavior in Belagavi, a Chi-Square Goodness of Fit test was conducted. Respondents (N = 102) were asked whether nutritional value was an important consideration when selecting packaged food items. The responses were recorded across five ordinal categories: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

Table 1: Observed Distribution

Response	Count	Proportion
Strongly Agree	34	33.3%
Agree	43	42.2%
Neutral	18	17.6%
Disagree	2	2.0%
Strongly Disagree	5	4.9%

Figure 1: Importance of Nutritional value in Consumer Purchase Decisions



The test was used to determine whether the observed frequencies significantly deviated from an expected equal distribution across all five response options.

Hypotheses:

- H0 (Null): Consumer purchasing behaviour in Belagavi is not substantially influenced by nutritional value.
- H1 (Alternative): In Belagavi, consumers' purchasing decisions are greatly influenced by nutritional value.

Chi-Square Test Result:

- χ^2 (df = 4) = 62.6
- $p < 0.001$

Since the p-value is less than 0.05, the null hypothesis is rejected. This suggests that there is a statistically significant deviation from a uniform response pattern. A majority of respondents reported either *Agree* or *Strongly Agree*, indicating that nutritional value is indeed an important factor influencing consumer purchasing decisions for packaged food in Belagavi.

4.2 Association between nutritional value importance and awareness of nutrition labels

To explore whether awareness of nutrition labels (such as the FSSAI logo) influences how strongly individuals consider nutritional value when selecting packaged food items, a Chi-Square Test of Independence (χ^2 Test of Association) was conducted. This statistical test is appropriate because:

- Both variables are categorical in nature.
- The goal is to evaluate whether the distribution of responses on one variable (importance of nutritional value) is independent of responses on another variable (awareness of nutrition labels, such as the FSSAI logo).

Hypotheses:

- H0 (Null): Food purchase decisions and knowledge of nutrition labels do not significantly correlate.
- H1 (Alternative): Food purchasing decisions and nutrition label awareness are significantly correlated.

Table 2: Contingency Tables

Awareness of nutrition labels	Nutritional Value Importance On Consumer Behaviour In Belagavi					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
Strongly agree	20	9	1	1	0	31
Agree	9	19	0	5	0	33
Strongly disagree	0	0	3	1	1	5
Neutral	2	10	1	7	1	21
Disagree	3	5	0	4	0	12
Total	34	43	5	18	2	102

Table 3: Test Results

Chi-Square Value (χ^2) = 72.6
Degrees of Freedom (df) = 16
p-value < 0.001
Sample Size (N) = 102

Since the p-value is less than the conventional threshold of 0.05, the null hypothesis (There is no significant relationship between awareness of nutrition labels and food purchasing decisions) can be rejected. This indicates a statistically significant relationship between consumers' awareness of nutrition labels and the importance they place on nutritional value in their food choices. In other words, consumers who are more aware of nutritional labeling (e.g., FSSAI logo) are more likely to prioritize nutritional value when purchasing packaged foods.

4.3 Demographic factors and their influence on nutritional value importance

Hypotheses

- H0 (Null): The emphasis that consumers place on nutritional value is not considerably impacted by demographic characteristics.
- H1 (Alternative): The significance that consumers attach to nutritional value is greatly influenced by demographic characteristics (age, gender, income, and education).

Tests Used

To test these hypotheses, we used two complementary statistical methods:

1. Chi-Square (χ^2) Test of Independence

- Purpose: To examine the association between each demographic factor and nutritional importance.
- Why: Chi-square is ideal for testing non-parametric relationships between two categorical variables.

2. Ordinal Logistic Regression

- Purpose: To analyze whether changes in demographics predict the ordered response levels of importance (from *Strongly Disagree* to *Strongly Agree*).
- Why: Since the dependent variable (nutritional importance) is ordinal, this model captures directional effects and estimates how much one category increases/decreases the odds of a higher importance rating.

4.3.1 Chi-square analysis summary

Table 4: Chie Square Analysis

Demographic Variable	χ^2 Value	df	p-value	Significance
Age	12.8	12	0.382	Not Significant
Gender	2.82	4	0.589	Not Significant
Income	8.94	16	0.916	Not Significant
Education	9.68	16	0.883	Not Significant
Occupation	22.8	16	0.118	Not Significant

- No statistically significant associations were found between any individual demographic factor and the levels of nutritional value importance using chi-square tests.
- Limitation of Chi-square: While it tests if an association exists, it doesn't indicate *which categories* within the demographic variable drive the effect.

4.3.2 Ordinal logistic regression analysis

The McFadden R^2 value of 0.084 indicates a modest predictive power. While the model is not very strong, it allows insight into which subgroups may drive perceptions about nutrition.

Table 5: Model Fit

Metric	Value
Deviance	236
AIC	276
McFadden R^2	0.084

Table 6: Significant Predictors ($p < 0.05$)

Predictor	Estimate	p-value	Interpretation
Student – Professional	2.006	0.005	Significant
Others (Occupation) – Professional	1.739	0.026	Significant

- Student vs. Professional:
 - Students are significantly more likely to place a higher importance on nutritional value than professionals.
 - The positive estimate (2.006) suggests students are more inclined to choose “Agree” or “Strongly Agree” compared to professionals.
 - Implication: Students may be more health-conscious, aware of nutrition, or influenced by current educational or social trends.
- Others vs. Professional:
 - Respondents classified under “Others” are also more likely to rate nutrition as highly important.
 - Suggests that professions outside of typical classifications (e.g., freelancers, homemakers, retirees) may hold stronger views on nutrition.
- Non-Significant Predictors: Other demographic contrasts (age groups, gender, income brackets, education levels) did not show statistically significant effects.
 - Gender (Female vs. Male): Estimate was negative but not significant ($p = 0.408$).

- Age (All categories vs. 18-25): No age group showed significant deviation.
- Income and Education: None of the brackets had significant influence.

While broad demographic categories did not show significant associations using chi-square tests, ordinal logistic regression revealed key differences within occupation categories:

- Students and “Others” value nutritional information more significantly than professionals.
- This could suggest that certain life stages (e.g., studying, non-working) influence a greater health consciousness or attentiveness to nutrition labelling.

5.0 Findings and Conclusions

According to the survey, Belagavi consumers’ decisions to buy food are heavily influenced by nutritional content. There is an increasing trend of health consciousness in the city, as evidenced by the significant percentage of respondents who stated that they deliberately check the nutritional content of packaged food items before making a purchase. When asked how important nutrition is, the majority of consumers gave positive answers like “Agree” and “Strongly Agree,” indicating a significant preference for healthier food choices.

Furthermore, the investigation revealed a strong correlation between consumers’ awareness of nutrition labels—like the FSSAI logo—and the significance they attach to nutritional content. This suggests that people who are aware of and comprehend food labels are more likely to base their purchases on nutritional considerations, proving the usefulness of labelling as a communication tool in shaping consumer behaviour.

The perception of nutritional value was found to be significantly influenced by occupation, but not by demographic factors such as age, gender, income, or education. In particular, compared to professionals, students and people in the “Others” category—which includes homemakers, retirees, and independent contractors—were more likely to place a high value on nutritional information. This implies that those who don’t work in traditional settings might have more time, flexibility, or motivation to interact with nutritional material. Additionally, this demographic may be more exposed to health-related content via social or educational platforms. On the other hand, because of lifestyle restrictions, time constraints, or convenience-driven behaviours, working professionals may either ignore or undervalue nutritional factors.

Overall, the results show how Belagavi’s consumer landscape is changing, with health and nutrition awareness increasingly influencing consumer behaviour, especially among young people and nonprofessional groups. These findings also highlight the increasing importance of label literacy and nutrition education in promoting informed food choices, particularly in urbanising tier-2 cities like Belagavi.

6.0 Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. **Strengthen Consumer Education on Nutrition Labels:** Health authorities, educational institutions, and regulatory bodies such as FSSAI should conduct awareness programmes to educate consumers on how to read and interpret nutrition labels. Community workshops, digital campaigns, and short informational videos can help consumers better understand nutritional terms and values.
2. **Adopt Segment-Specific Marketing Strategies:** Marketers should customise their communication strategies based on consumer segments. Health-focused messaging can be directed toward students and homemakers, while convenience-oriented yet health-aligned messaging may be more effective for working professionals with time constraints.
3. **Improve Visibility and Simplicity of Nutritional Information:** FMCG companies should highlight key nutritional benefits clearly on product packaging using simple language, icons, or colour-coded indicators. This can make nutritional information easier to understand at the point of purchase.
4. **Collaborate with Educational Institutions:** Schools and colleges can play a vital role in promoting nutritional awareness. Integrating basic nutrition education into co-curricular activities and organising health-focused initiatives can help build long-term healthy consumption habits among young consumers.
5. **Support Clear and Standardised Labelling Policies:** Policymakers should consider strengthening front-of-pack labelling regulations to ensure consistency and clarity. Simplified labelling systems such as star ratings or traffic-light indicators can improve accessibility for consumers across different literacy levels.
6. **Use Retail Stores as Awareness Platforms:** Retail outlets can serve as effective points for nutrition education through shelf labels, comparison charts, QR codes, and trained staff who can guide consumers in making healthier choices.
7. **Encourage Health-Oriented Product Innovation:** Food manufacturers should respond to increasing health awareness by developing and promoting nutritious product alternatives, such as low-sugar, high-fibre, or fortified food options, aligned with consumer demand.

References

1. Allen, I. E., & Seaman, C. A. (2007). Likert scales and data analyses. *Quality Progress*, 40(7), 64–65.
2. Bryman, A. (2012). *Social research methods* (4th ed.). Oxford University Press.

3. Campos, S., Doxey, J., & Hammond, D. (2011). Nutrition labels on pre-packaged foods: A systematic review. *Public Health Nutrition*, 14(8), 1496–1506. <https://doi.org/10.1017/S1368980010003290>
4. Cecchini, M., & Warin, L. (2016). Impact of food labelling systems on food choices and eating behaviours: A systematic review and meta-analysis of randomized studies. *Obesity Reviews*, 17(3), 201–210.
5. Cochrane Library review. (2025). Calorie labels encourage people to eat less by only a single crisp study. *Cochrane Review via The Guardian*. [theguardian.com](https://www.theguardian.com)
6. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
7. Frontiers survey. (2022). Consumers' perception about front-of-package food labels (FOPL) in India: A survey of 14 states. *Frontiers in Public Health*.
8. Global Health Action. (2015). Nutrition labelling: A review of research on consumer and industry response in the global South. *Global Health Action*, 8, 25912.
9. Grunert, K. G., & Wills, J. M. (2007). A review of European research on consumer response to nutrition information on food labels. *Journal of Public Health*, 15(5), 385–399. <https://doi.org/10.1007/s10389-007-0101-9>
10. Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396–403. <https://doi.org/10.9734/BJAST/2015/14975>
11. Kanter, R., Vanderlee, L., & Vandevijvere, S. (2018). Front-of-package nutrition labeling policy: Global progress and future directions. *Public Health Nutrition*, 21(8), 1399–1408.
12. Kaur, H., Singh, A., & Rao, A. (2021). Consumer awareness and use of food labels in India: An urban perspective. *International Journal of Consumer Studies*, 45(4), 506–517.
13. Kumar, B., & Kapoor, S. (2015). Nutritional labelling and consumer awareness in India: A review. *International Journal of Management and Social Sciences Research*, 4(1), 15–20.
14. Magnier, L., & Schoormans, J. (2015). Consumer reactions to sustainable packaging: The interplay of visual appearance, verbal claim and environmental concern. *Journal of Environmental Psychology*, 44, 53–62.
15. MDPI fast food study. (2021?). The impact of nutrition labelling on customer buying intention and behaviours in fast food operations. *International Journal of Environmental Research and Public Health*. [mdpi.com](https://www.mdpi.com)
16. Miller, L. M. S., & Cassady, D. L. (2012). The effects of nutrition knowledge on food label use: A review of the literature. *Appetite*, 59(2), 414–425.

17. National Academies of Sciences, Engineering, and Medicine. (2011). *Front-of-package nutrition rating systems and symbols: Promoting healthier choices*. The National Academies Press. <https://doi.org/10.17226/13221>
18. Paul, R., & Bedi, M. (2014). Nutrition label usage: An empirical study of consumer response in India. *Indian Journal of Marketing*, 44(4), 25–33.
19. PMC New Delhi/Hyderabad study. (2013). Use of food label information by urban consumers in India – A study among supermarket shoppers. *Public Health Nutrition*.
20. Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
21. Singla, M. (2010). Usage and understanding of food and nutritional labels among Indian consumers. *British Food Journal*, 112(1), 83–92. <https://doi.org/10.1108/00070701011011227>
22. Song, J., Brown, M. K., Tan, A. X., & Roberto, C. A. (2021). Impact of front-of-package nutrition labeling on consumer behavior: A systematic review and meta-analysis. *American Journal of Preventive Medicine*, 60(4), 576–585. <https://doi.org/10.1016/j.amepre.2020.10.015>
23. Sripathi, N., Dehury, R. K., & Neeragatti, S. (2023). The influence of health consciousness, nutritional labeling, and subjective norms on consumer purchase intentions of healthy packaged foods. *Academy of Marketing Studies Journal*, 27(5), 1–13.
24. Taillie, L. S., Hall, M. G., Popkin, B. M., Ng, S. W., & Murukutla, N. (2020). Experimental studies of front-of-package nutritional labels: A systematic review and meta-analysis. *PLoS Medicine*, 17(11), e1003500.
25. Talati, Z., Pettigrew, S., Dixon, H., Neal, B., Ball, K., & Hughes, C. (2017). Do health claims and front-of-pack labels lead to a positivity bias in unhealthy foods? *Nutrients*, 9(5), 453.
26. Temple, N. J. (2020). Front-of-package food labels: A narrative review. *Appetite*, 144, 104485.
27. Vox & Chile review. (2025). Will warning labels on ultra-processed foods make America healthy again? *Vox*, referencing Latin American studies.
28. World Health Organization. (2020). Healthy diet. <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>

Appendix

Chi-Square Goodness of Fit test result for Importance of Nutritional Value in Consumer Purchase Decisions

Proportion Test (N Outcomes)		
Proportions - Nutritional Importance Value		
Level	Count	Proportion
Strongly agree	34	0.3333
Agree	43	0.4216
Strongly disagree	5	0.0490
Neutral	18	0.1765
Disagree	2	0.0196
χ^2 Goodness of Fit		
χ^2	df	p
62.6	4	<.001

Chi-Square Test Results of Independence (χ^2 Test of Association) for Association Between Nutritional Value Importance and Awareness of Nutrition Labels

Contingency Tables

Contingency Tables

Awareness Of Nutritional Lables	Nutritional Importance Value					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
Strongly agree	20	9	1	1	0	31
Agree	9	19	0	5	0	33
Strongly disagree	0	0	3	1	1	5
Neutral	2	10	1	7	1	21
Disagree	3	5	0	4	0	12
Total	34	43	5	18	2	102

 χ^2 Tests

	Value	df	p
χ^2	72.6	16	<.001
N	102		

Chi-Square (χ^2) Test of Independence test result for demographic factor (AGE)**Contingency Tables**

Contingency Tables

B	Nutritional Importance Value					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
18-25	21	29	3	14	2	69
26-35	11	8	2	1	0	22
36-50	2	3	0	3	0	8
50+	0	3	0	0	0	3
Total	34	43	5	18	2	102

 χ^2 Tests

	Value	df	p
χ^2	12.8	12	0.382
N	102		

Chi-Square (χ^2) Test of Independence test result for demographic factor (GENDER)**Contingency Tables**

Contingency Tables

D	Nutritional Importance Value					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
Male	15	20	2	7	2	46
Female	19	23	3	11	0	56
Total	34	43	5	18	2	102

 χ^2 Tests

	Value	df	p
χ^2	2.82	4	0.589
N	102		

Chi-Square (χ^2) Test of Independence test result for demographic factor (INCOME)**Contingency Tables**

Contingency Tables

F	Nutritional Importance Value					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
0-4 lakhs	25	34	5	11	2	77
4-8 lakhs	6	6	0	3	0	15
8-12 lakhs	1	3	0	2	0	6
12-16 lakhs	1	0	0	1	0	2
16 lakhs and above	1	0	0	1	0	2
Total	34	43	5	18	2	102

 χ^2 Tests

	Value	df	p
χ^2	8.94	16	0.916
N	102		

Chi-Square (χ^2) Test of Independence test result for demographic factor (EDUCATIONAL QUALIFICATION)**Contingency Tables**

Contingency Tables

H	Nutritional Importance Value					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
Postgraduate	11	16	2	7	0	36
Graduate	19	22	3	8	2	54
PUC	2	4	0	2	0	8
Others	2	1	0	0	0	3
SSLC	0	0	0	1	0	1
Total	34	43	5	18	2	102

 χ^2 Tests

	Value	df	p
χ^2	9.68	16	0.883
N	102		

Chi-Square (χ^2) Test of Independence test result for demographic factor (OCCUPATION)

Contingency Tables						
Contingency Tables						
J	Nutritional Importance Value					Total
	Strongly agree	Agree	Strongly disagree	Neutral	Disagree	
Professional	10	4	0	2	0	16
Student	9	22	2	11	1	45
Business	5	4	1	3	0	13
Others	3	9	2	1	0	15
Service	7	4	0	1	1	13
Total	34	43	5	18	2	102

χ^2 Tests			
	Value	df	p
χ^2	22.8	16	0.118
N	102		

Ordinal Logistic Regression Analysis Results

Ordinal Logistic Regression

Model Fit Measures

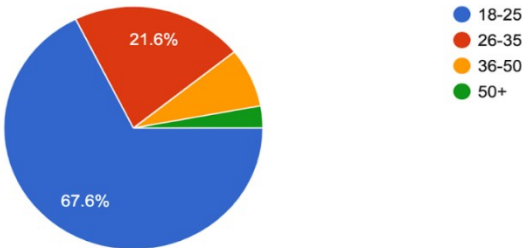
Model	Deviance	AIC	R ² _{McF}
1	236	276	0.0840

Note. The dependent variable 'Nutritional Importance Value' has the following order:
Strongly agree | Agree | Strongly disagree | Neutral | Disagree

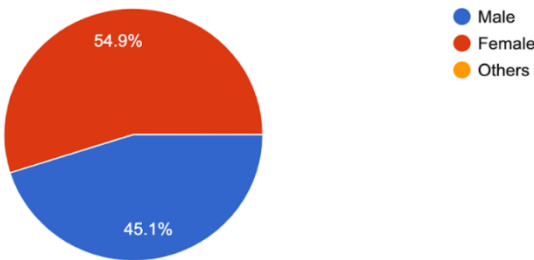
Model Coefficients - Nutritional Importance Value

Predictor	Estimate	SE	Z	p
B:				
26-35 – 18-25	-0.5197	0.558	-0.931	0.352
36-50 – 18-25	0.9196	1.066	0.863	0.388
50+ – 18-25	0.6248	1.110	0.563	0.574
D:				
Female – Male	-0.3631	0.439	-0.827	0.408
F:				
4-8 lakhs – 0-4 lakhs	0.4978	0.623	0.799	0.424
8-12 lakhs – 0-4 lakhs	0.1445	0.943	0.153	0.878
12-16 lakhs – 0-4 lakhs	0.2553	1.871	0.136	0.891
16 lakhs and above – 0-4 lakhs	0.4655	1.488	0.313	0.754
H:				
Graduate – Postgraduate	-0.0797	0.434	-0.184	0.854
PUC – Postgraduate	-0.1890	0.795	-0.238	0.812
Others – Postgraduate	-2.2827	1.350	-1.690	0.091
SSLC – Postgraduate	2.5497	2.155	1.183	0.237
J:				
Student – Professional	2.0060	0.712	2.818	0.005
Business – Professional	0.8158	0.935	0.872	0.383
Others – Professional	1.7394	0.781	2.226	0.026
Service – Professional	0.1940	0.877	0.221	0.825

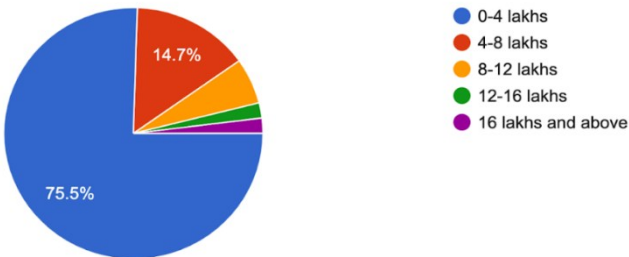
2. Age Group:
102 responses



3. Gender:
102 responses

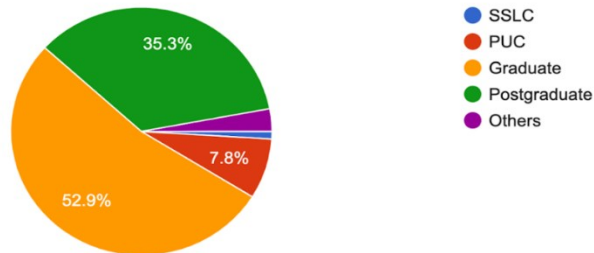


4. Annual Income:
102 responses



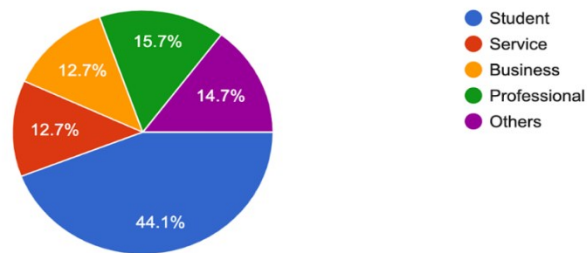
5. Educational Qualification:

102 responses



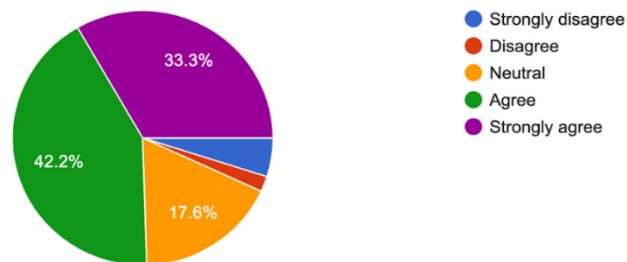
6. Occupation:

102 responses



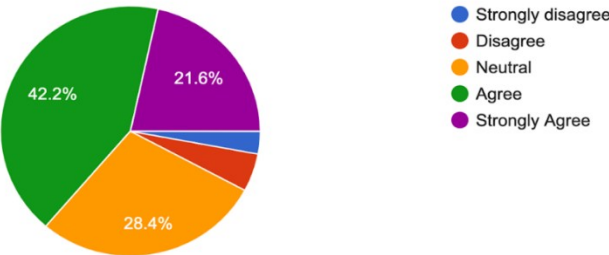
7. Nutritional value is an important consideration to me when selecting packaged food items:

102 responses



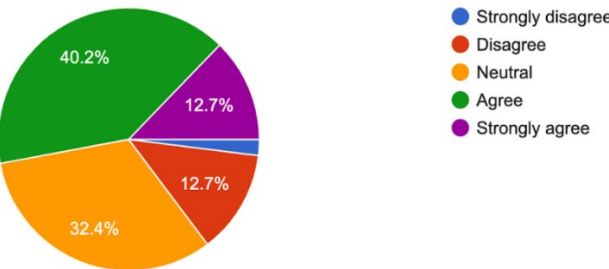
8. Health benefits of a product influence my purchase decisions more than price or taste:

102 responses



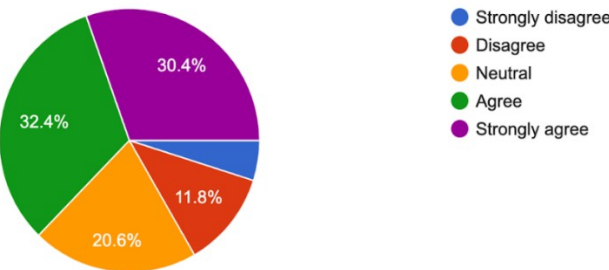
9. Marketing terms like "low-fat" or "gluten-free" affect my perception of a product's nutritional value:

102 responses



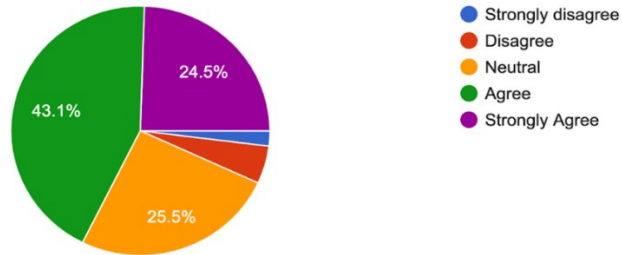
10. Nutrition-related labels such as the FSSAI logo affects my product choice:

102 responses



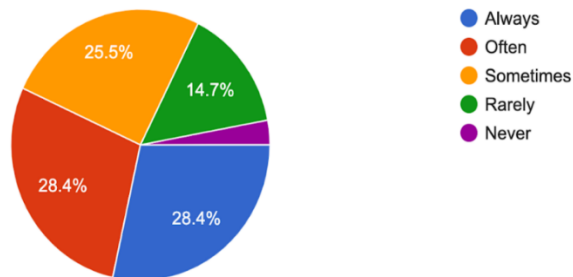
11. As a consumer, I'm more likely to choose products with higher nutritional value, even if priced higher:

102 responses



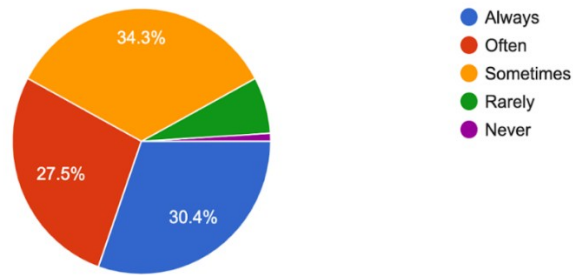
12. How frequently do you read nutritional information on packaged food before purchase?

102 responses



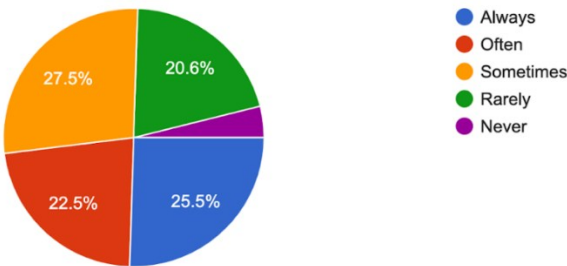
13. How often do you choose food products based on their health benefits?

102 responses



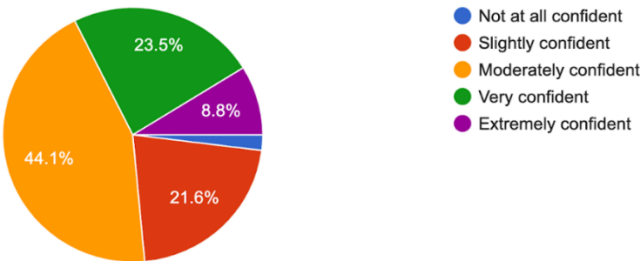
14. How frequently do you discuss food nutrition or labels with friends or family?

102 responses



15. How confident are you in understanding and interpreting the nutritional labels on packaged foods (e.g., calories, fats, sugars, etc.)?

102 responses



16. How confident are you in distinguishing between healthy and unhealthy packaged food options?

102 responses

