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Review study on consumer awareness and acceptance of organic red-gram dal

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Abstract

The increasing shift toward healthier and environmentally sustainable food choices has significantly accelerated the demand for organic food products, drawing attention to the need for a deeper understanding of consumer awareness and acceptance, particularly for staple commodities such as organic red-gram dal. This review critically synthesises existing empirical and conceptual studies to examine how awareness, perception, and behavioural factors collectively influence consumer decision-making.

The analysis reveals that although consumers generally demonstrate a high level of awareness regarding the health benefits, safety, and eco-friendly nature of organic foods, this awareness does not consistently translate into regular purchasing behaviour. A persistent attitude-behaviour gap is observed across studies, where positive perceptions fail to result in sustained consumption. This gap is primarily attributed to structural and economic constraints, including high price premiums, limited product availability, inadequate distribution networks, and a lack of trust in certification and labelling systems.

Furthermore, the review highlights that while awareness acts as an initial driver of interest, factors such as affordability, accessibility, and perceived authenticity play a more decisive role in influencing actual consumption, especially for frequently consumed staple foods like pulses. The findings emphasize the need for integrated strategies involving pricing interventions, improved supply chain efficiency, transparent certification mechanisms, and targeted consumer education. Strengthening these aspects is essential to convert awareness into consistent purchasing behaviour and to enhance the adoption of organic red-gram dal in the broader context of sustainable food consumption.

Keywords: Organic food, consumer awareness, consumer acceptance, organic red-gram dal, purchase behaviour, health perception, environmental concern, price sensitivity, availability, certification trust, attitude-behaviour gap, sustainable consumption

Introduction

In recent years, the growing concerns over health, food safety, and environmental sustainability have significantly influenced consumer preferences, leading to a noticeable shift toward organic food consumption. Increasing awareness about the harmful effects of chemical inputs in conventional agriculture, along with rising incidences of lifestyle-related health issues, has encouraged consumers to seek safer and more nutritious food alternatives. At the same time, environmental considerations such as soil degradation, biodiversity loss, and ecological imbalance have further strengthened the appeal of organic farming practices.

Within this broader context, pulses—particularly red-gram dal—hold a crucial place in the Indian diet as a primary source of protein and essential nutrients. Despite their nutritional importance and frequent consumption, the adoption of organic variants of pulses remains comparatively low when compared to organic fruits and vegetables. This disparity indicates that consumer behaviour

towards staple foods differs from that of non-staple or occasional food items, often due to factors such as price sensitivity, purchasing habits, and availability constraints.

Understanding consumer awareness and acceptance in this segment is therefore essential for promoting sustainable food consumption patterns. Awareness influences how consumers perceive organic products, while acceptance determines their willingness to incorporate these products into regular diets. However, existing literature suggests that a gap often exists between awareness and actual purchasing behaviour, particularly for staple commodities.

In this context, the present review aims to critically analyse existing studies on consumer awareness and acceptance of organic food products, with a specific focus on organic red-gram dal. By synthesizing findings from diverse research, the study seeks to identify key determinants, challenges, and research gaps, thereby providing insights for improving the adoption of organic pulses in India.

Consumer Awareness

Theoretical Background

Consumer awareness involves the knowledge and comprehension that consumers possess regarding organic food products, such as their health benefits, how they are produced, and their environmental advantages. Increased awareness enables consumers to distinguish organic products from conventional ones and promotes positive attitudes towards consuming organic food.

Multiple studies suggest that awareness plays a major role in shaping how consumers perceive products and make purchasing decisions. Yadav and colleagues In 2024 ^[38] and Pavithran in 2021 ^[27] discovered that consumers typically link organic foods to health benefits, safety, and production without chemicals, which results in favourable attitudes. However, elements like high costs and limited access frequently limit regular use. In a similar manner, Irine and Guna (2019) ^[12] as well as Singh and Alagawadi (2020) ^[31] found that awareness levels differ depending on the product category, with greater awareness observed for organic fruits and vegetables than for cereals and legumes.

Education, income, and the accessibility of information also influence awareness levels. Kushwaha (2017) ^[20] and Amudha *et al.* (In 2021) ^[1], it was observed that although many consumers are familiar with organic products, worries about their high cost and skepticism regarding the certification process prevent them from making actual purchases. Ansari and Sikandar (2022) ^[2], as well as Radhika and Elumalai (2024) ^[28], also emphasized that comprehension and trust in organic labeling significantly influence purchasing choices.

In general, the research suggests that consumer awareness significantly influences attitudes toward organic foods, although awareness by itself does not necessarily lead to higher consumption. Factors like affordable pricing, easy access to the product, trustworthy certification, and strong marketing efforts are crucial for turning awareness into consistent buying habits.

Yadav *et al* (2024) ^[38] examined consumer perception and awareness towards organic food products in the National Capital Region of India. The study adopted a descriptive and analytical research design and collected primary data from 300 consumers using a structured questionnaire. Data were analysed using factor analysis, reliability tests, and ANOVA. The findings revealed overall positive consumer attitudes towards organic food, primarily driven by perceptions of health benefits, environmental friendliness, and chemical-free production. While location did not significantly influence attitudes, it affected perceptions of market dynamics such as availability and demand. The study concluded that awareness and perception jointly influence organic food consumption, highlighting the importance of improving availability and market access alongside awareness initiatives.

Pavithran (2021) ^[27] analysed consumer perception towards organic products in Chennai using a descriptive research design. Primary data were collected from 130 respondents through a structured questionnaire and analysed using percentage analysis, correlation analysis, chi-square tests, and ANOVA. The results indicated strong positive perceptions regarding the health, safety, and quality attributes of organic products. However, high prices and

limited product variety emerged as major concerns affecting regular purchase. Income significantly influenced perceptions of availability and demand. The study concluded that while awareness of organic benefits is increasing, pricing and accessibility barriers must be addressed to encourage consistent consumption.

Irine and Guna (2019) ^[12] studied consumer awareness towards organic food products in Coimbatore city. The research used a sample of 208 respondents and employed percentage analysis, rank analysis, and chi-square tests. The findings indicated high awareness of organic vegetables but only moderate awareness of cereals and pulses. Although nutritional value was a strong motivator, limited availability constrained wider adoption. This implies a need for category-specific awareness strategies, particularly for organic pulses.

Singh and Alagawadi (2020) ^[31] investigated customers' awareness towards organic food products in Kalaburagi city, Karnataka. The study used a sample of 384 urban consumers, selected based on the Krejcie and Morgan sample size determination method. Data were analysed using descriptive statistics, chi-square tests, ANOVA, and post hoc analysis. The findings revealed that awareness levels varied across product categories, with cereals and pulses receiving lower awareness compared to vegetables and fruits. Education and income significantly influenced awareness levels. This suggests that targeted educational initiatives are required to deepen consumer understanding of organic staple foods.

Karthikeyan (2018) ^[16] examined consumer preference towards organic products in India using a descriptive and conceptual research approach. The study relied on secondary data and reported survey-based insights to explain awareness sources and preference factors. The findings indicated that consumer preference for organic products is primarily driven by health, safety, and chemical-free attributes, while a section of consumers remained unaware of organic products. Environmental protection and ethical considerations such as animal welfare also influenced preference. The study concluded that increasing consumer awareness and trust through education and promotion is essential for strengthening organic product adoption.

Kushwaha (2017) ^[20] investigated consumer buying behaviour towards organic food products in Uttarakhand using a descriptive research design. Primary data were collected from 150 respondents, including both organic and non-organic consumers, through personal interviews. Data were analysed using percentage and correlation analysis. The findings revealed low awareness levels of organic foods, particularly among non-organic consumers, with education and income positively influencing awareness and attitudes. Health benefits were the primary reason for organic food purchase, while environmental concern played a minor role. The study concluded that high prices and lack of awareness are major barriers to organic food adoption, emphasizing the need for awareness programmes and price reduction strategies.

Sivakami (2017) ^[32] studied consumer purchase intention towards organic food products in Thanjavur district, Tamil Nadu. The research was based on a sample of 120 respondents and primarily used descriptive statistical

analysis. The findings revealed high awareness levels and strong health-based motivation, but considerable variation in purchase intention. This indicates that awareness alone is insufficient and must be supported by targeted promotional and motivational strategies to increase actual buying behaviour.

Radhika and Elumalai (2024) ^[28] investigated consumers' buying behaviour towards organic food products in Chennai city. The study analysed 208 valid responses and used descriptive statistics, factor analysis, and ranking analysis. The results showed that food quality, health protection, and environmental friendliness were the strongest motivators influencing purchase decisions. Despite high awareness, trust issues and incomplete knowledge limited regular consumption. This suggests that strengthening certification transparency and consumer education is essential to bridge the attitude-behaviour gap.

Amudha *et al* (2021) ^[1] examined consumer purchase practices for organic products in Coimbatore focusing on factors influencing adoption and barriers to buying. Data collected from 500 respondents revealed that 96 per cent were aware of organic products, but only 58 per cent used them regularly. Price differences were a significant deterrent, and most consumers were unwilling to pay more than 5–10 per cent above non-organic alternatives. Trust issues regarding organic labelling also hindered adoption.

Chib *et al* (2019) ^[8] examined antecedents of organic food consumption among Indian consumers across multiple urban locations. The study used a sample of 300 respondents and applied regression analysis and correlation analysis to identify key influencing factors. The findings showed that although awareness levels were relatively high, actual consumption was driven more by nutrient value perception, availability, and customer ideology than awareness alone. This indicates that awareness campaigns must be supported by supply-side improvements and positive perception reinforcement to increase organic food consumption.

Ansari and Sikandar (2022) ^[2] investigated consumer attitude and purchase intention towards organic food products in the twin cities of Hyderabad and Secunderabad using an exploratory and descriptive research design. Primary data were collected from 103 urban consumers through a structured questionnaire and analysed using exploratory factor analysis and correlation analysis. The results showed that knowledge and subjective norms had the strongest influence on purchase intention, followed by environmental and health concerns. Gender differences were insignificant, indicating that favourable attitudes were more knowledge-driven than demographic-specific.

Consumer acceptance of organic foods

Theoretical Background of the Study

Consumer acceptance of organic foods involves the readiness of buyers to regularly purchase and consume these products, influenced by their views on health advantages, product quality, safety, and environmental sustainability. Acceptance is affected by various factors including awareness of health, product quality, confidence in certification, sensitivity to price, and availability of the product. Numerous studies emphasize that the health advantages and the absence of chemicals in production are

the most significant factors affecting consumers' acceptance of organic foods. Sahu (2025), along with Lakshmi *et al* (2025), and Kalra *et al* (A study from 2020 ^[14]) found that consumers tend to favor organic foods primarily due to their perceived nutritional benefits, safety, and quality. In a similar manner, Preethi and Gayathri (2022) along with Kattige and Patil (2022) ^[17] discovered that awareness of health and concern for the environment have a positive effect on consumer attitudes and the likelihood of purchasing organic food products. Nevertheless, even with positive attitudes, various obstacles prevent regular consumption. High costs, limited product availability, and a lack of confidence in certification systems are frequently cited as challenges. Research conducted by Rai (2021) ^[29], Sumithra (2021) ^[34], Nguyen *et al.* (According to studies from 2021 ^[25] and Singh and Verma in 2017 ^[30], even though consumers are aware of the advantages of organic food, these obstacles decrease how often they buy it. Price sensitivity, in particular, significantly influences consumer choices, especially when it comes to essential foods like cereals and pulses (Kamboj *et al.*, 2023) ^[15]).

Research carried out in global settings also shows comparable trends, with perceived quality and environmental awareness boosting acceptance, while economic and situational factors affect real purchasing decisions (Wang *et al.*, Referenced sources include Liang (2016) and others (2020) ^[37]). In general, the research suggests that people's acceptance of organic foods is largely shaped by their views on health and quality, though ongoing consumption is determined by factors such as cost, confidence in certification processes, and how easily the products can be obtained. Enhancing awareness, improving supply chains, and creating effective pricing strategies are crucial for increasing consumer acceptance, especially regarding organic legumes and staple foods.

Sahu (2025) analysed consumer preference towards organic products in various regions of India using a secondary-data-based approach. The study did not involve a primary sample and relied on descriptive percentage analysis and thematic content analysis of data drawn from market reports and earlier empirical studies. The findings indicated that health benefits and chemical-free attributes were the strongest purchase motivators, while high price and limited availability were major barriers. Organic pulses and grains showed lower preference compared to fruits and vegetables. This suggests strong growth potential for organic pulses if affordability and distribution issues are addressed.

Lakshmi *et al* (2025) analysed consumer buying behaviour towards organic food products in the Rayalaseema region of Andhra Pradesh. The study used a sample of 250 respondents across five districts and relied mainly on descriptive statistical tools such as percentage analysis. The findings indicated that nutritional value, health benefits, and product quality were dominant purchase motivators, with fruits and vegetables being most preferred. Organic cereals and pulses showed moderate adoption due to uneven availability. This suggests scope for improving supply diversification and awareness of non-vegetable organic products.

Henn *et al* (2021) conducted a quantitative survey across five European countries to identify behavioral, attitudinal drivers and barriers to pulse consumption. The key findings

have showed that, consumption has varied significantly across countries, with the highest frequency in Spain and the lowest in Denmark. The primary driver for consumption was perceived as health benefits, while the main barriers were digestive problems and difficulty of preparation. The study also noted that, a positive consumption experience was a stronger predictor of consumption than knowledge.

Smiglak *et al* (2020) investigated consumer purchasing intentions towards legume products in Poland as an indicator of sustainable food behaviour. The study followed a descriptive and analytical research design and used primary data from 1,067 consumers collected through a stratified sampling approach. Data were analysed using descriptive statistics, discriminant analysis, and regression analysis. The findings revealed that health benefits, protein content, affordability, taste, and environmental concern significantly influenced legume consumption. Price sensitivity remained strong, particularly among rural consumers, while urban consumers showed greater preference for meat substitution motives. The study concluded that although legumes are widely recognised as sustainable and healthy foods, price and availability continue to shape purchasing decisions.

Balaji and Injodey (2017) ^[4] investigated consumer perceptions towards organic food products in Bangalore city using a descriptive and analytical research design. The study collected primary data from 465 consumers through a structured questionnaire and analysed it using factor analysis, ANOVA, and regression analysis. The findings identified health benefits, consumer ideology, and chemical-free attributes as key perception factors influencing organic food preference. Regression results showed that taste and chemical-free attributes significantly influenced purchase behaviour, while health benefits alone were insufficient to predict actual buying decisions. The study concluded that sensory appeal and trust in chemical-free production are critical drivers of organic food purchases in urban India.

Yilmaz (2023) investigated consumer behaviour towards organic food purchases in Turkey, applying the Stimulus–Organism–Response (SOR) framework to explain behavioural mechanisms. The study surveyed a sample of 420 consumers across major Turkish cities and employed Structural Equation Modelling (SEM) with mediation analysis as the primary statistical technique. The findings revealed that stimulus factors such as perceived health benefits, food safety, and environmental responsibility significantly influenced internal evaluations (attitude and perceived value), which in turn affected purchase behaviour. Socio- demographic variables, particularly education and employment status, moderated these relationships. However, price sensitivity and accessibility issues continued to limit regular organic food consumption. This suggests that value-based marketing strategies are more effective than demographic segmentation alone, but must be supported by affordability measures.

Preethi and Gayathri (2022) examined factors influencing consumers' behaviour towards organic food products in urban areas of Tamil Nadu. The study was based on a sample of 150 consumers selected through convenience sampling. Data were analysed primarily using descriptive statistics (mean scores and percentages) and ranking analysis. The findings indicated that health consciousness

emerged as the most influential factor motivating organic food purchases, followed by environmental concern and perceived product quality. Despite favourable attitudes, high price premiums and limited availability discouraged frequent purchases. This suggests that pricing interventions and improved retail penetration are necessary to convert positive perceptions into regular buying behaviour.

Kattige and Patil (2022) ^[17] conducted an exploratory study on factors influencing the buying behaviour of organic food consumers in the Mumbai region. The study was based on a sample of 240 organic food consumers and used descriptive statistics and exploratory factor analysis as major analytical tools. The findings indicated that health benefits and environmental concerns were strong motivators, and a significant proportion of consumers were willing to pay a moderate premium for organic food. However, limited market penetration persisted due to accessibility constraints and trust issues. This suggests that improving distribution networks and certification transparency is crucial for expanding organic food markets in urban India.

Muthukumar and Krishnakumar (2024) ^[24] examined consumer perceptions of organic food products in Coimbatore focusing on factors influencing purchasing behaviour using data from 146 respondents. Statistical analysis revealed that environmental consciousness, health consciousness, and knowledge were key factors shaping satisfaction towards organic food products, while affordability and availability posed challenges to consistent consumption.

Rai (2021) ^[29] analysed consumer buying behaviour towards organic food products in Navi Mumbai, Maharashtra. The study used a sample of 100 consumers who were aware of and had experience purchasing organic food products. Percentage analysis and graphical interpretation were the major statistical tools employed. The findings revealed that consumers strongly associated organic food with health benefits and superior quality; however, purchase frequency remained occasional rather than regular. High prices, lack of trust in certification, and limited retail availability emerged as key barriers. This indicates the need for trust-building mechanisms and wider retail access to sustain organic food consumption.

Sumithra (2021) ^[34] examined customer behaviour towards organic food products in Chennai city, with specific emphasis on organic vegetables. The study adopted a descriptive research design and collected primary data from 120 consumers using a structured questionnaire. Data were analysed using percentage analysis, correlation analysis, and one-way ANOVA. The findings showed that consumers had a strong positive perception of organic vegetables in terms of quality, health benefits, and food safety. However, high prices and limited availability constrained actual purchase behaviour despite high buying intention. Income and education significantly influenced purchase frequency, indicating an attitude– behaviour gap driven mainly by economic factors. Products with superior quality, absence of chemical residues, and better taste; however, limited knowledge about certification standards and skepticism toward labeling reduced consistent purchasing behaviour.

Nguyen *et al* (2021) ^[25] investigated determinants of organic food purchase intention in urban Vietnam, focusing on trust and perceived risk. The study was conducted using a sample

of 412 urban consumers, and data were analysed using Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM). The findings indicated that trust in certification and perceived food safety had a strong positive effect on attitude and purchase intention, while perceived price risk negatively influenced intention. Although consumers expressed strong health motivations, limited confidence in certification authenticity constrained regular buying behaviour. This suggests that institutional trust and certification enforcement are critical for expanding organic food markets in emerging economies.

Kalra *et al* (2020) ^[14] analysed the impact of consumer perception on the demand for organic food products in India using a descriptive analytical research design. Primary data were collected from 500 consumers through structured questionnaires. The findings indicated that health benefits were the strongest driver of demand for organic foods, followed by income level, education, social status, and product availability. Although consumer perception positively influenced demand, gaps in awareness and market accessibility limited wider adoption. The study concluded that strengthening consumer education and improving distribution networks are essential for expanding the organic food market in India.

Zayed *et al* (2022) examined factors influencing consumers' purchase intention towards organic food products in Egypt using an extended Theory of Planned Behaviour framework. The study employed a cross-sectional explanatory research design and collected data from 363 consumers through an online survey. Data were analysed using Partial Least Squares–Structural Equation Modelling. The results showed that consumer attitude and environmental concern had a significant positive effect on purchase intention, while health consciousness did not directly influence buying decisions. Electronic word-of-mouth indirectly affected purchase intention by shaping attitudes and perceived control. The study concluded that strengthening environmental awareness and positive attitudes is more effective than health-based messaging alone in promoting organic food adoption.

Laureti and Benedetti (2018) ^[21] analysed pro-environmental food purchasing behaviour among Italian consumers using empirical data analysis. The findings indicated that environmental awareness positively affected purchase intention towards organic food products. However, economic constraints and lifestyle factors moderated actual purchase behaviour, leading to irregular consumption patterns. The study suggested that sustainable consumption policies must consider affordability alongside awareness initiatives.

Schäufele and Hamm (2018) examined organic wine purchasing behaviour in Germany using panel data analysis. The study found a persistent attitude–behaviour gap, where positive consumer attitudes towards organic wine did not consistently result in regular purchases. Price promotions, habitual buying patterns, and situational purchase contexts were found to influence behaviour more strongly than stated environmental preferences. This highlights the role of economic and contextual variables in shaping actual consumption behaviour.

Ueasangkomsate and Santiteerakul (2016) ^[36] examined

consumers' attitudes and purchase intention towards organic food in Thailand, focusing on urban retail consumers. The area of study was Thailand, and the research was conducted using a sample of 250 consumers selected from supermarkets and specialty organic stores. Data were analysed using descriptive statistics, correlation analysis, and multiple regression analysis. The findings indicated that health-related attributes and perceived product quality were the strongest factors influencing positive attitudes and purchase intention towards organic food, while environmental concern and animal welfare considerations played a secondary role. Despite favourable perceptions, high prices and limited product availability restricted frequent purchases. This suggests that in Southeast Asian markets, organic food consumption is primarily health-driven and requires pricing and distribution strategies aligned with consumer affordability.

Basha *et al* (2015) ^[6] examined consumer attitudes and purchase intention towards organic food products in Chennai and Bangalore using the Theory of Planned Behaviour. The study adopted a descriptive and causal research design and collected primary data from 50 consumers through a structured questionnaire. Data were analysed using descriptive statistics, correlation, regression, t-tests, and ANOVA. The findings showed that product quality was the most influential factor shaping consumer attitudes, followed by environmental concern and health-related lifestyle factors, while subjective norms had the weakest influence. Regression results confirmed that all factors significantly affected purchase intention, with health and lifestyle concerns exerting the strongest impact. The study concluded that organic food purchase is largely driven by individual benefits rather than social pressure, highlighting the importance of quality- and health-focused marketing strategies.

Kamboj *et al* (2023) ^[15] investigated consumer purchase intention for organic food products in urban India, with a specific focus on staple categories, including organic pulses. The study employed a descriptive-analytical research design and used a sample of 420 consumers from major metropolitan cities. Data were analysed using exploratory factor analysis and multiple regression analysis. The findings indicated that organic food knowledge, perceived health benefits, and trust in certification positively influenced purchase intention. However, regression results showed that price sensitivity had a stronger negative effect on purchase intention for pulses than for vegetables and fruits. Despite recognising the nutritional importance of pulses, consumers were reluctant to pay a premium for daily staple items. This suggests that pricing strategies play a critical role in determining organic pulse adoption in urban markets.

Kunhikannan and Ramachandran (2020) ^[19] examined factors influencing consumers' buying intention towards organic food products in Coimbatore city, Tamil Nadu. The study used a sample of 468 consumers and applied Confirmatory Factor Analysis (CFA), Structural Equation Modelling (SEM), correlation, and regression analysis. The findings indicated that knowledge and environmental consciousness positively influenced purchase attitude and intention, while availability acted as a facilitating factor. Price had a negative direct effect on buying intention despite

positive attitudes. This suggests that pricing strategies and expanded retail presence are necessary to improve organic food adoption.

Wang *et al* (2020) ^[37] proposed a moderated mediation model examining the relationship between environmental consciousness, perceived food quality, and price sensitivity in influencing organic food purchase intention. The findings revealed that perceived product quality positively mediated the relationship between environmental concern and purchase intention. However, price sensitivity negatively moderated this relationship by weakening the effect of environmental consciousness on actual buying behaviour. The study confirmed that economic considerations remain central to organic food consumption decisions despite favourable perceptions.

Minbashrazgah *et al* (2017) ^[23] examined green chicken purchase behaviour and the moderating role of price transparency using behavioural modelling techniques. The study assessed how perceived price fairness influenced consumer trust and willingness to pay for environmentally sustainable food products. The results indicated that transparent pricing significantly reduced consumer scepticism regarding organic products and increased purchase intention. Consumers who clearly understood price differences between organic and conventional products showed higher trust levels. The study concluded that pricing transparency strengthens perceived value and plays a critical role in influencing sustainable food consumption behaviour. Torres-Ruiz *et al* (2018) ^[35] proposed a multistage model to analyse sustainable consumption behaviour. The study suggested that consumer decision-making progresses through awareness, evaluation, intention, and action stages, with drop-offs occurring due to economic and situational barriers such as price and availability.

Loganathan and Sangeetha (2021) ^[22] conducted a study examining consumer satisfaction towards e-marketing strategies of organic products in Coimbatore city using primary data collected from 50 respondents. The findings revealed that quality, price, and health benefits significantly influenced consumer satisfaction towards organic products marketed through digital platforms. Challenges such as high costs, limited awareness, and reluctance to pay premium prices were found to affect overall satisfaction levels.

Gupta *et al* (2025) ^[11] explored consumer behaviour concerning organic food products, including organic pulses, in Udaipur city, Rajasthan. The study adopted a descriptive research design and was conducted using a sample of 120 respondents, selected from urban households. Primary data were collected using a structured questionnaire and analysed using descriptive statistics and percentage analysis. The findings revealed that a majority of respondents regularly purchased organic vegetables and fruits, while organic pulses were purchased less frequently. Price sensitivity and limited availability emerged as the most significant constraints affecting pulse purchases. Despite high awareness levels and positive perceptions of organic food, affordability and accessibility remained major obstacles to the regular consumption of organic pulses. The study suggests the need for targeted awareness campaigns, supply-chain strengthening, and policy interventions to improve the affordability and availability of organic pulses.

Jingdam (2025) ^[13] examined consumer behaviour towards

organic food products in selected districts of Arunachal Pradesh, with product-wise analysis including organic cereals and pulses. The study adopted a descriptive research design and was conducted using a sample of 180 consumers from both urban and semi-urban areas. Primary data were analysed using percentage analysis, mean score analysis, and ranking techniques. The findings revealed that organic fruits and vegetables dominated consumer preference, while organic pulses were purchased by a smaller segment of respondents. Although consumers perceived organic pulses as healthier and safer, high prices, limited availability, and lack of organised organic retail outlets constrained purchase behaviour. The study highlights that in less-developed regional markets, supply-side limitations significantly restrict organic pulse consumption despite positive consumer perceptions.

Khan and Srinath (2024) ^[18] examined factors affecting consumer buying behaviour towards organic and non-organic food products in Bangalore city, Karnataka. The study employed a mixed-method approach, using a quantitative survey of 200 consumers and qualitative interviews with 20 respondents. Major statistical tools included descriptive statistics, comparative analysis, and thematic analysis. The findings indicated that health consciousness and trust significantly influenced preference for organic food, while price competitiveness played a decisive role in final purchase decisions. This suggests that improving affordability and strengthening certification credibility are essential for organic food adoption in metropolitan markets.

Gomathi and Narayan (2024) ^[10] examined consumer purchase intention towards organic food products in the Tenkasi region of Tamil Nadu. The study adopted a descriptive and analytical research design and collected primary data from 375 consumers using a structured questionnaire. Data were analysed using percentage analysis, correlation, chi-square tests, ANOVA, and regression analysis. The findings indicated that freshness, labelling, taste, and price significantly influenced purchase intention. Although consumers showed positive attitudes towards organic foods, high prices and lack of information limited regular consumption. The study concluded that price reduction strategies and improved product information are essential to enhance organic food adoption.

Basha *et al* (2021) ^[5] examined consumer buying behaviour towards organic food in the United Arab Emirates (UAE), representing a mature and high-income organic food market. The study used a sample of 208 organic food consumers and analysed data using multiple regression analysis and path analysis. The findings indicated that attitude towards organic food had the strongest influence on purchase intention, followed by health and lifestyle considerations, safety and trust, subjective norms, and convenience factors. Unlike developing markets, price played a less restrictive role due to higher purchasing power. However, trust in certification and authenticity remained important even in this advanced market. This suggests that while income reduces price barriers, trust-building mechanisms remain universally critical for sustaining organic food consumption. Arokiaaraj *et al* (2020) ^[3] analysed consumer behaviour towards organic food purchases in Bangalore city, grounding the study in behavioural theories. The research

used a sample of 240 consumers and employed Structural Equation Modelling (SEM) as the major analytical tool. The results showed that trust, intention, personal norms, and social norms significantly influenced buying behaviour. Although awareness was high, difficulty in identifying authentic organic products and unattractive product appearance discouraged repeat purchases. This suggests that clearer labelling and consumer education are required to reinforce trust and habitual buying.

Dangi *et al* (2020) ^[9] examined consumer buying behaviour and purchase intention towards organic food through a conceptual review drawing evidence from both developed and emerging economies, with specific relevance to India. The study synthesised findings from 91 empirical studies representing a cumulative sample of 154,072 consumers using secondary data analysis and thematic synthesis rather than primary statistical testing. The authors found that health concern, environmental concern, consumer knowledge, trust in certification, eco-labels, and price were the most influential determinants of organic food purchase intention. Despite positive consumer attitudes towards organic products, price sensitivity and trust deficits constrained regular consumption behaviour. The study emphasised that strengthening certification systems and integrating behavioural models is essential for organic market expansion in India.

Chekima *et al* (2019) ^[7] examined future orientation as a moderating factor in organic food purchasing behaviour. The results indicated that consumers with stronger long-term orientation were more likely to convert intention into actual organic purchases. However, situational constraints such as price and availability continued to influence regular consumption behaviour.

Pandey *et al* (2019) ^[26] examined barriers for pulse production and consumption coping strategies in rural Bihar and Odisha. The study stated that, farmers identified lack of certified quality seeds and inadequate agricultural extension services as primary obstacles. A substantial price gap between farm harvest and market prices highlighted the need for increased support prices, assured procurement and improved local markets. On the consumer side, rising pulse prices disproportionately affected vulnerable groups, leading to substitutions with less nutritious foods, while landowners opted for comparably nutritious alternatives, reflecting socio-economic disparities. The study emphasized that, inclusion of pulses in India's Public Distribution System and the development of non-farm income opportunities to protect vulnerable populations from nutritional deficits and providing critical policy insights, enhances pulse production, ensuring food security in eastern India.

Singh and Verma (2017) ^[30] investigated factors influencing Indian consumers' actual buying behaviour towards organic food products across India. The study covered a pan-India urban consumer base and used a sample of 611 respondents. Major statistical tools employed included factor analysis, ANOVA, independent t-tests, and hierarchical multiple regression analysis. The findings indicated that health consciousness, consumer knowledge, subjective norms, price, and availability significantly influenced attitude and purchase intention, which in turn affected actual buying behaviour. Despite favourable attitudes, high prices and

limited availability restricted consistent purchasing. This suggests that affordability and retail accessibility are critical for converting intention into sustained consumption.

Discussion

The synthesis of existing literature clearly establishes a strong interrelationship between consumer awareness, perception, and acceptance of organic food products. While awareness levels have shown a noticeable increase over time, particularly regarding the health and environmental benefits of organic foods, this does not consistently translate into actual purchasing behaviour. A recurring pattern across multiple studies is the presence of an attitude-behaviour gap, where consumers express positive perceptions and intentions but fail to incorporate organic products into their regular consumption habits. This gap highlights the limitation of awareness as a standalone driver and underscores the importance of external and situational factors in shaping consumer behaviour.

Among these factors, price sensitivity emerges as the most dominant constraint, especially in the context of staple foods such as red-gram dal. Unlike discretionary food items like fruits and vegetables, pulses are consumed on a daily basis, making consumers more cautious about spending on premium-priced alternatives. As a result, even consumers with strong positive attitudes toward organic foods tend to prioritise affordability over perceived benefits when it comes to routine purchases. This indicates that economic considerations outweigh attitudinal factors in determining actual buying decisions for staple commodities.

In addition to pricing, limited availability and underdeveloped distribution systems further restrict the adoption of organic pulses. Many studies highlight that organic products are not consistently accessible across retail outlets, particularly in smaller cities and semi-urban areas. This lack of accessibility not only reduces purchase convenience but also weakens consumer interest over time. The absence of well-established supply chains for organic pulses creates a structural barrier, preventing consumers from translating their preferences into actual purchases.

Another critical issue influencing consumer behaviour is the lack of trust in certification and labelling systems. Despite being aware of organic products, many consumers remain skeptical about their authenticity due to insufficient transparency and limited understanding of certification standards. This uncertainty reduces confidence and discourages repeat purchases. The literature suggests that strengthening regulatory frameworks, ensuring certification credibility, and improving consumer education regarding labeling can play a vital role in building trust and enhancing market acceptance.

Furthermore, socio-economic factors such as income, education, and lifestyle significantly shape both awareness and acceptance levels. Higher-income and well-educated consumers are more likely to exhibit positive attitudes and a greater willingness to purchase organic products, as they are better equipped to afford premium prices and understand the associated benefits. In contrast, lower-income groups, despite being aware, tend to remain highly price-sensitive, limiting their participation in the organic market. Lifestyle factors, including health consciousness and environmental concern, also contribute to variations in consumer

behaviour.

Overall, the findings suggest that increasing awareness alone is insufficient to drive widespread adoption of organic red-gram dal. A comprehensive and integrated approach is required, combining effective pricing strategies, improved supply chain and distribution networks, transparent certification systems, and targeted consumer education. Addressing these interconnected factors is essential for bridging the gap between awareness and actual consumption and for promoting the sustained adoption of organic pulses in the long term.

Conclusion

This review highlighted that consumer awareness and acceptance of organic food products are shaped by a complex interaction of psychological perceptions, economic constraints, and structural market conditions. Although awareness regarding the health benefits, safety, and environmental advantages of organic foods has increased considerably, it does not consistently lead to regular consumption. The persistence of an attitude-behaviour gap indicates that favourable perceptions alone are insufficient to influence sustained purchasing decisions. Instead, external factors such as affordability, accessibility, and trust in product authenticity play a more decisive role in determining consumer behaviour.

In the context of organic red-gram dal, these challenges are particularly significant due to its status as a staple food consumed on a daily basis. Consumers tend to be more price-sensitive when purchasing essential commodities, making them less willing to pay premium prices for organic alternatives. At the same time, inconsistent availability, limited retail presence, and weak distribution networks further restrict consumer access. Additionally, concerns regarding the credibility of certification and labelling systems continue to undermine consumer confidence, even among those who are aware of the benefits of organic products.

Addressing these issues requires a multi-dimensional approach. Strategies such as rational pricing, subsidies, or cost-reduction mechanisms can help make organic pulses more economically viable for a wider segment of consumers. Strengthening supply chains and expanding retail distribution are equally important to ensure consistent product availability. Moreover, enhancing transparency in certification processes and improving consumer awareness about labeling standards can help build trust and encourage repeat purchases.

Future research should focus on identifying effective marketing and behavioural interventions that can bridge the gap between awareness and actual consumption. There is also a need to explore policy-level initiatives aimed at improving affordability, strengthening institutional support, and promoting organic agriculture at a larger scale. By addressing these interconnected challenges, it will be possible to enhance the adoption of organic red-gram dal and contribute to the broader goal of sustainable and health-oriented food consumption in India.

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