

Impact Of Nutritional Content On Organic Food Buying Behaviour: Health Consciousness As A Mediator

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Abstract

The study investigates the impact of nutritional content on the purchasing behavior of organic food products in Tiruchirappalli District, Tamil Nadu. The study utilizes the sample of 484 consumers, the samples are selected through purposive sampling technique. The cause-and-effect research design is utilized to carry out the study. A well-structured survey questionnaire is used to collect data, and percentage analysis, structural equation modeling, ANOVA and Post-Hoc tests are used for data analysis. Results proved that consumer education, regulatory standards, and technological advancements are recognized as the main determinants of nutritional content in organic food. Nutrition content has significant impact on forming organic food buying behaviour among consumers. Results also proved that health consciousness has no mediating effect between nutritional content and buying behaviour. It confirmed that consumers are not considering health aspects in organic foods. Socio-economic factors such as age, academic status, monthly earnings and profession further moderate these effects, suggesting the need for tailored strategies to encourage organic food consumption.

Key Words: Consumer Education, Regulatory Standards, Technological Advancements, Nutritional Content, Health Consciousness, and Buying Behaviour.

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I. Introduction

At present, nutritional content on organic food buying behavior is considered most, as health-conscious consumers increasingly prioritize food quality and nutritional benefits. Organic foods are often professed as healthier due to their cultivation without synthetic pesticides, fertilizers, and genetically modified organisms. The sensitivity is backed by eminent personalities recommending that organic produce may contain higher levels of certain nutrients, such as antioxidants and vitamins. Consequently, consumers seeking to improve their health and well-being are more inclined to choose organic food options. Furthermore, the growing awareness of the link between diet and chronic diseases drives consumers to consider nutritional content when making food choices. Organic foods, with their minimal chemical residues and potentially higher nutrient density, appeal to those aiming to reduce their exposure to harmful substances and enhance their overall diet quality. The shift in consumer preference is also influenced by the desire for natural and wholesome food products, which are often associated with organic farming practices. Marketing strategies emphasizing the superior nutritional profile of organic foods further reinforce this behavior (Priyanath and Dangalla, 2022). Labels and certifications highlighting organic products' health benefits has main task in guiding consumer decisions. As a result, the nutritional content of organic foods significantly shapes buying behavior, with many consumers willing to pay a premium for professed health advantages. As consumers become more informed about the links between diet and health, the demand for food products that offer superior nutritional benefits has surged. This demand is particularly strong for organic foods, which are often marketed and perceived as healthier alternatives to conventionally grown counterparts. Organic foods are produced using farming practices that avoid synthetic chemicals and genetically modified organisms. The approach not only benefits the environment but also tends to enhance the nutritional profile of the produce. Fact has indicated that organic foods can have higher levels of certain nutrients, such as antioxidants, vitamin C, and phenolic compounds, compared to conventionally grown foods. The nutrients protect the body against oxidative stress and chronic diseases, making organic foods an attractive option for health-conscious consumers. In addition to the actual nutritional benefits, the perception of organic foods as healthier also plays a significant role in shaping buying behavior. Consumers associate organic labels with purity, safety, and superior nutritional quality, which influences their purchasing decisions (Shrestha, 2022).

The insight is reinforced by marketing strategies that highlight the absence of harmful chemicals and the potential for higher nutrient content in organic products. Consequently, consumers are often willing to pay a premium for organic foods, believing that they are investing in their health and well-being. The rise of lifestyle-related diseases, such as obesity, diabetes, and cardiovascular diseases, has further driven the demand for nutrient-rich foods. As people seek to manage and prevent these conditions, they are more likely to scrutinize the nutritional content of their food choices. Organic foods, with their promise of being free from synthetic additives and higher in beneficial nutrients, fit well within this trend. The shift in consumer preferences is also supported by a growing body of research and media coverage highlighting the health benefits of organic foods. Moreover, the increasing transparency in food labeling has empowered consumers to make more informed choices (Lee et al., 2020). Labels indicating organic certification, and detailed nutritional information help consumers identify products that align with their health goals. The transparency has contributed to greater consumer trust in organic products and a stronger inclination to choose them over conventional options.

A different factor influencing organic food buying behavior is the demographic trend towards more health-conscious and environmentally aware consumers. Younger generations, in particular, are more likely to prioritize sustainability and health in their purchasing decisions. The demographic shift has led to a broader acceptance and preference for organic foods, further driving market growth. However, it is important to note that while nutritional content is a significant factor, it is not the only one driving organic food purchasing behavior. Other factors, such as environmental concerns, animal welfare, and food safety, also play critical roles. Many consumers choose organic foods not only for their potential health benefits but also for ethical and ecological reasons. The nutritional content of organic foods has a profound impact on buying behavior, driven by a combination of actual health benefits and consumer perceptions. As awareness of the relationship between diet and health continues to grow, so does the demand for organic products (Basha et al., 2021). The trend is likely to persist, supported by ongoing research, transparent labeling practices, and a generational shift towards healthier and more sustainable lifestyles. The interplay between these factors emphasizes the complex and multi-faceted nature of consumer behavior in the organic food market.

On the positive side, organic foods are cultivated without synthetic pesticides, fertilizers, reducing exposure to potentially harmful chemicals. It can be particularly advantageous for sensitive groups like children. Organic produce may contain higher levels of certain nutrients, such as antioxidants and vitamins, enhancing overall health. Environmentally, organic farming practices support sustainability by promoting soil health, reducing pollution, and conserving water resources. Furthermore, organic farming often emphasizes animal welfare, providing livestock with more humane living conditions. However, organic foods also have their downsides. The higher cost is a notable disadvantage, making organic products less accessible to many consumers. The price difference is attributed to labor-intensive farming methods and generally lower yields. Availability can be another issue; as organic options might be limited in certain areas. While organic foods are perceived as healthier, the nutritional differences compared to conventional foods are sometimes minimal and may not always justify the higher price. Additionally, the “organic” label does not guarantee a healthier product, as organic processed foods can still be high in sugar, fat, and calories.

Nutritional Content: Nutritional content in organic foods influencing consumer preferences due to various health benefits. Organic foods often have a favorable macro-nutrient composition, providing balanced levels of proteins, fats, and carbohydrates. The balance is essential for maintaining energy levels and overall health. Organic foods contain higher presence of antioxidants, these compounds, such as flavonoids and carotenoids, help protect the body from oxidative stress and reduce the risk of chronic diseases. Organic produce, including fruits and vegetables, can contain significantly higher antioxidant levels than conventionally grown counterparts. Caloric values in organic foods may also be lower, particularly in fruits and vegetables. It can be beneficial for those managing their weight, as organic options often provide fewer calories while delivering more nutrients (Lee and Yun, 2015). Dietary fiber aids in digestion, helps regulate blood sugar levels, and contributes to heart health. Nutrients are vital for maintaining various bodily functions, including immune response, bone health, and energy production. Organic farming practices strictly limit the use of synthetic pesticides and fertilizers, leading to cleaner and potentially safer food options. The reduction in chemical residues is a significant draw for consumers concerned about long-term health effects and environmental sustainability (Tandon et al., 2021).

Consumer Education: The growing consumer awareness of nutrition and healthy eating is empowering consumers to make better choices. Consumers are able to accurately understand the information shown in labels, they are better equipped to select foods that align with their health goals. Access to credible and accurate data helps consumers differentiate between marketing claims and actual nutritional benefits. The reliability ensures that consumers make decisions based on facts rather than misconceptions or misleading advertisements. The cultural backdrop supports the acceptance and preference for organic products, reinforcing their perceived value and benefits (Paul and Rana, 2012). Educating consumers about organic foods involves providing comprehensive

information on healthy eating, ensuring they can understand nutritional labels, and offering access to reliable nutrition sources. Combined with supportive cultural attitudes, these factors empower consumers to make healthier choices, contributing to a broader shift towards better nutrition and well-being.

Regulatory Standards: Regulatory standards for organic foods are essential in ensuring consumer trust and product integrity. The mandatory printing of nutritional information on food packaging allows consumers to make decisions based on detailed nutritional profiles. Regulatory bodies rigorously monitor food manufacturers to ensure they adhere to established organic standards. The oversight helps prevent fraudulent claims and maintains the integrity of organic products in the market. Dietary guidelines and recommendations provide a framework for what constitutes a healthy diet, influencing the standards that organic foods must meet. Aligning organic food production with these recommendations, regulatory bodies help promote healthier eating habits among the public. Policy changes and regulation updates ensure that organic standards remain relevant and effective in promoting health and sustainability. Through careful regulation helps maintain consumer confidence and supports the growing demand for organic products (Singh and Verma, 2017).

Technological Advancements: Technological advancements are significantly enhancing the organic food industry. Modern food processing techniques have improved the preservation and safety of organic products, ensuring they retain their nutritional value while extending shelf life. These methods help maintain the integrity of organic foods without relying on synthetic preservatives. Innovations in genetic research, though controversial in the organic sector, have led to developments in bio-fortification. Consumers benefit from organically grown foods that are higher in essential vitamins and minerals. Digital tools provide precise measurements of the nutrient content in organic foods, helping producers and consumers understand their health benefits better. These technologies ensure that organic foods continue to be a viable and attractive option for health-conscious consumers, raising trust and satisfaction in the organic label (Meena et al., 2023).

Health Consciousness: Health consciousness is the prime cause preferring organic foods, the professed importance of family health is a primary motivator. Knowledge about the wellness benefits of nutrition is growing, supported by a wealth of information available through various media. Consumers now understand that what they eat significantly affects their health. Consumer realization leads to a proactive approach to health, including regular exercise and routine health check-ups. As people become more health-conscious, they increasingly prefer organic foods for their superior nutritional content and lower levels of harmful substances like pesticides. Awareness of the health risks associated with poor nutrition further reinforces this trend (Hsu et al., 2016). Poor dietary choices are linked to numerous health issues, including obesity, diabetes, and heart disease. Self-assessment of health status often prompts individuals to make dietary changes, leading them to opt for organic products to enhance their health outcomes. Health consciousness mediates the relationship between the nutritional content of organic foods and buying behavior. The heightened awareness leads to a greater appreciation of the nutritional benefits of organic products, thereby influencing purchasing decisions (Nagaraj, 2021). The belief that organic foods offer superior health benefits motivates consumers to invest in these products, even at a higher cost. Consequently, health consciousness acts as a bridge, linking the perceived nutritional advantages of organic foods to actual buying behavior. This connection highlights the importance of educating consumers about the health benefits of organic foods to drive market growth.

Buying Behaviour: Buying behavior towards organic foods is formed by multiple factors, reflecting consumers' evolving priorities and values. The notable trend is the increasing frequency with which consumers purchase organic foods. Consumers who prioritize health and sustainability often view the higher cost as an investment in their well-being and the environment. The willingness is reinforced by the perceived quality and safety of organic foods, which are seen as free from synthetic pesticides and chemicals, leading to a belief that they are healthier and safer for consumption. As more people adopt organic products, it creates a ripple effect, influencing others in their social circles to do the same. The peer influence can amplify the demand for organic foods, as consumers seek to align with the health-conscious choices of their community (Gundala and Singh, 2021). Environmental concerns further influence buying behavior. Consumers choose organic foods as a way to support sustainable farming practices that are less harmful to the planet. The environmental impact of conventional farming methods, such as soil degradation and pesticide pollution, drives eco-conscious consumers towards organic alternatives. Buying behavior is influenced by readiness to pay higher prices, the impact of social norms, strong commitment and loyalty, environmental concerns, and the perceived quality and safety of these products (Hossain et al., 2019). The factors collectively form a market that values health, sustainability, and better consumer choices.

II. Statement Of Problem

Realizing the factors that influence consumer behavior towards organic foods is vital for both marketers and public health advocates. Despite the growing popularity of organic foods, there is still limited knowledge about the specific impact of nutritional content on purchasing decisions. Additionally, while health consciousness is often cited as a reason for choosing organic products, its role as a mediator between nutritional content and buying behavior is not fully understood. The gap in knowledge makes it challenging to effectively promote organic foods based on their nutritional benefits. It also limits the ability to develop targeted interventions that encourage healthier eating habits through increased organic food consumption. Therefore, this study aims to investigate how the nutritional content of organic foods influences buying behavior, with a specific focus on health consciousness as a mediating factor.

III. Need For The Study

There is a pressing need for research that explores the relationship between nutritional content and consumer buying behavior in the context of organic foods. As the demand for organic products continues to rise, realizing what drives this demand can help stakeholders create more effective marketing strategies and public health campaigns. Examining health consciousness as a mediator, the study seeks to provide deeper insights into the motivations behind organic food purchases. Such insights are valuable for producers, retailers, and policymakers aiming to promote organic foods and improve public health outcomes. Furthermore, this study can contribute to the broader field of consumer behavior by highlighting the importance of nutritional awareness and health-conscious decision-making in food choices. The study intends to fill the existing knowledge gap, offering evidence-based recommendations to enhance the promotion and consumption of organic foods.

IV. Literature Review And Hypothesis Development

The nutritional content of organic foods has been a principal aspect in realizing consumer preferences and market trends. Organic foods often have a more favorable nutritional profile compared to conventional foods (Shi et al., 2022). It includes higher levels of certain vitamins, minerals, and antioxidants. These nutrients are vital for maintaining overall health and preventing chronic diseases (Mie et al., 2017). The absence of synthetic pesticides and fertilizers in organic farming also means that the produce generally has fewer chemical residues, which is a significant factor for health-conscious consumers (Rani et al., 2023). The increasing access to information, consumers are more knowledgeable about the impact of their dietary choices on health and the environment. Effective consumer education includes understanding the benefits of organic foods, the ability to interpret nutritional labels, and recognizing certifications that assure organic quality (Wu and Takacs-Gyorgy, 2022). Consumers become more informed, their trust in organic products grows, leading to more frequent and consistent purchasing behaviors (Yilmaz, 2023). Education efforts are often supported by public health campaigns, schools, and community programs that highlight the importance of nutrition and sustainable farming practices (Wang et al., 2023).

Regulatory standards are essential for maintaining the integrity of organic foods. These standards ensure that foods labeled as organic meet specific criteria, which include the prohibition of synthetic chemicals, and adherence to environmentally sustainable practices (Khan et al., 2023). Regulatory bodies enforce these standards through inspections and certifications, providing consumers with confidence in the authenticity of organic products (Putivskaya et al., 2021). Evolving regulations also adapt to new scientific findings and market conditions, ensuring that organic standards remain relevant and effective (Onwezen et al., 2014). Technological advancements have significantly impacted the organic food industry, enhancing both production and quality (Kaushani et al., 2022). Digital tools for nutritional analysis provide precise data on the nutrient content of organic products, helping both producers and consumers understand their health benefits (Mukherjee et al., 2022). The technologies also streamline supply chains and reduce waste, making organic foods more accessible and affordable. As technology continues to evolve, it promises to further enhance the quality and availability of organic products (Chowdhury et al., 2021).

Consumers who prioritize their health are more likely to choose organic foods, which they perceive as healthier and safer. Perception is often based on the belief that organic foods are free from harmful chemicals and are more nutritious (Su et al., 2022). Health-conscious individuals are typically proactive about their well-being, engaging in regular exercise, health check-ups, and making informed dietary choices (Iqbal et al., 2021). The growing awareness of the link between diet and health outcomes further reinforces the demand for organic foods (Parashar et al., 2023). Frequent purchases of organic foods are often seen among consumers who are committed to a healthy lifestyle and are willing to improve in their well-being. Environmental concerns with eco-conscious consumers choosing organic foods to support sustainable farming practices (Kattige and Patil, 2022). The perceived quality and safety of organic foods enhance consumer trust and loyalty, leading to consistent purchasing patterns (Dangi et al., 2020). As consumers become more informed and health-conscious, the demand for organic foods is likely to continue growing, driven by the combined influence of these factors (Krishnakumare and

Niranjan, 2017). Literature review assisted to conceive the ensuing conceptual model to test and suggested the hypotheses proposed below.

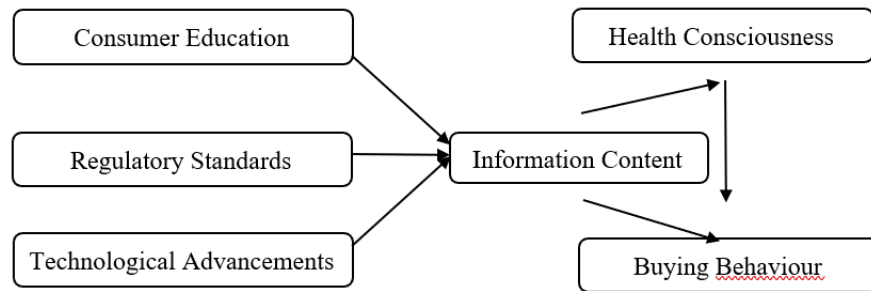


Figure 1: Conceptual model

Research Hypotheses

H_{1.1}: Antecedents have significant impact on consumer education, regulatory standards, technological advancements, nutritional content, health consciousness, and buying behaviour.

H_{1.2}: Consumer education, regulatory standards, technological advancements have significant impact on nutritional content.

H_{1.3}: Nutritional content has significant impact on buying behaviour of organic foods.

H_{1.4}: Health consciousness has mediating impact between nutritional content and buying behaviour.

H_{1.5}: Socio-economic profile has significant impact on research variables.

V. Materials And Methods

The methodology focuses on the impact of nutritional content on organic food buying behaviour and mediating role of health consciousness in organic food products. The study employs purposive sampling to strategically select participants from the broad population of organic food consumers.

As per the recommendations of Cochran's formula, a minimum sample size of 384 is necessary, but the present study exceeds that requirement, collecting data from 484 organic food consumers in Trichy district. The larger sample size enhances the credibility and reliability of the results. Cause-and-effect research design is applied to identify the connections between the research variables. A well-structured questionnaire serves as the primary instrument for data collection, ensuring comprehensive coverage of relevant variables. Socio-economic traits of the consumers are analyzed through simple percentage analysis. Structural equation modeling is used to analyze the causal links among variables. Additionally, ANOVA and Post-Hoc tests are employed to highlight significant differences across various socio-economic segments and the core research variables.

VI. Results And Discussion

Analysis of Socio-Economic Profile

The socio-economic profile of consumers purchasing organic foods are analyzed in Table 1.

Table 1: Socio-Economic Profile

Profile	Distribution	Number	Percent
Gender	Male	370	76.4%
	Female	114	23.6%
Age	Below 30 years	112	23.1%
	30 – 40 years	223	46.1%
	Above 45 years	149	30.8%
Academic Status	School/Diploma	286	59.1%
	Under Graduate	148	30.6%
	Post Graduate	50	10.3%
Monthly Earnings	Less than Rs.30,000	171	35.3%
	Rs.30,000 – 60,000	185	38.2%
	More than Rs.60,000	128	26.4%
Profession	Business	235	48.6%
	Employed	166	34.3%
	Retired/Agriculture	83	17.1%

Table 1 presents the socio-economic profile of consumers. In terms of gender, male make up 76.4% in total of 484 consumers, while female make up 23.6%. In terms of age, 46.1% of people are between the ages of 30 – 40 years, 30.8% are over 45 years, and 23.1% are under 30 years. Academic status reveals that 30.6% of consumers are undergraduates, 10.3% hold postgraduate degrees, and the majority of consumers (59.1%) have

completed school or diploma-level education. Monthly earnings shows that 38.2% of consumers make between Rs.30,000 - Rs.60,000 a month, 35.3% make less than Rs.30,000, and 26.4% make more than Rs.60,000. Occupation discloses that the largest group (48.6%) is made up of those who involved in business, followed by 34.3% of employed people and 17.1% of agrarian or retired. The population represented by this data is primarily male, varies in age, education, and income, and a sizable portion is either retired or employed in agriculture.

Impact of Nutritional Content on Organic Food Buying Behaviour

The study assessed the impact of nutritional content on organic food buying behaviour, therefore, the cause and effect association among Nutritional Content (NCNT), Consumer Education (CEDU), Regulatory Standards (RSTD), Technological Advancements (TCHA), Health Consciousness (HCSN), and Buying Behaviour (CBEV) are investigated using Structural Equation Modelling. The observed endogenous variables are NCNT1 – NCNT6, CEDU1 – CEDU4, RSTD1 – RSTD4, TCHA1 – TCHA3, HCSN1 – HCSN6, and CBEV1 – CBEV6. The unobserved, exogenous variables are e1 – e32, CEDU, RSTD, and TCHA. The unobserved, endogenous variables are NCNT, HCSN, and CBEV. The model is performed with 67 variables, it includes 29 observed, 38 unobserved, 32 endogenous and 35 exogenous variables. In this way, the structural equation model is represented in Figure 2 and equivalent path analysis are presented in Table 2.

Figure 2: Structural Equation Model

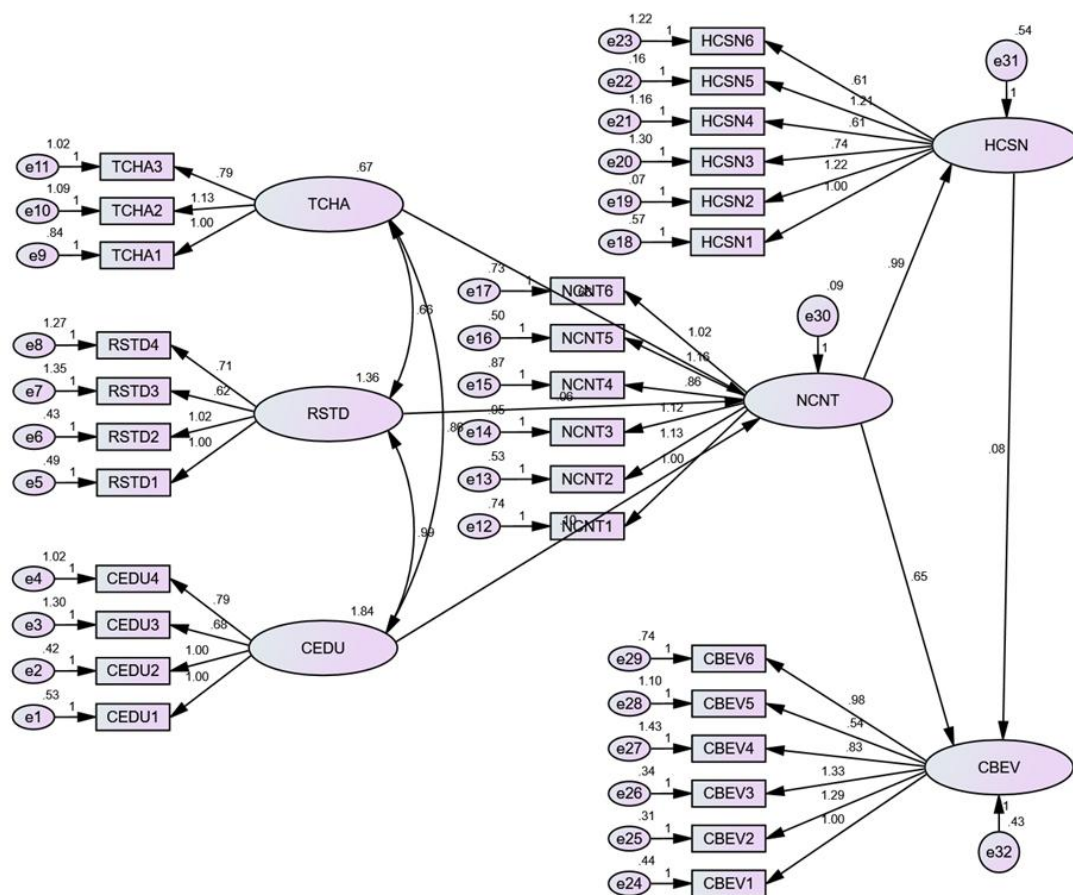


Table 2: Path Analysis

Path			Unstd. Estimates	Std. Estimates	t	p
CEDU1 – Extent of information about healthy eating and nutrition	<-- -	CEDU	1.000	.881		
CEDU2 – Ability to understand nutritional labels and guidelines	<-- -		1.003	.903	26.758	***
CEDU3 – Accessibility of reliable source of nutrition information	<-- -		.680	.630	15.418	***
CEDU4 – Cultural attitudes towards nutrition	<-- -		.791	.728	18.965	***
RSTD1 – Printing of nutritional information on food	<-- -	RSTD	1.000	.857		
RSTD2 – Compliance and enforcement on food manufacturers	<-- -		1.024	.877	21.746	***
RSTD3 – Dietary guidelines and recommendations	<-- -		.623	.530	11.886	***
RSTD4 – Policy changes and regulations on organic food	<-- -		.706	.590	13.533	***
TCHA1 – Food processing techniques	<-- -	TCHA	1.000	.667		
TCHA2 – Genetic modification and bio-fortification	<-- -		1.133	.665	12.377	***
TCHA3 – Digital tools for nutritional analysis	<-- -		.786	.538	10.306	***
NCNT1 – Macro-nutrient composition in food	<-- -	NCNT	1.000	.663		
NCNT2 – Presence of antioxidants	<-- -		1.135	.765	14.683	***
NCNT3 – Caloric values in organic food	<-- -		1.124	.659	12.936	***
NCNT4 – Amount of dietary fiber content	<-- -		.864	.577	11.481	***
NCNT5 – Presence of vitamins and minerals	<-- -		1.161	.780	14.927	***
NCNT6 – Presence of pesticides or residues	<-- -		1.018	.671	13.137	***
HCSN1 – Perceived importance of family health	<-- -	HCSN	1.000	.812		
HCSN2 – Knowledge about wellness of nutrition on health	<-- -		1.217	.980	28.595	***
HCSN3 – Proactive health measures like exercise and check-ups	<-- -		.741	.565	13.311	***
HCSN4 – Health risk awareness of poor nutrition	<-- -		.607	.510	11.832	***
HCSN5 – Self-assessment of health status	<-- -		1.206	.955	27.585	***
HCSN6 – Attitude towards preventive healthcare	<-- -		.611	.504	11.663	***
CBEV1 – Purchase frequency of organic foods	<-- -	CBEV	1.000	.792		
CBEV2 – Willingness to pay premium price	<-- -		1.287	.892	22.150	***
CBEV3 – Influence of social norms	<-- -		1.328	.889	22.061	***
CBEV4 – Degree of commitment and loyalty on organic foods	<-- -		.831	.512	11.363	***
CBEV5 – Environmental concerns on organic foods	<-- -		.536	.401	8.725	***
CBEV6 – Perceived quality and safety of organic foods	<-- -		.983	.700	16.322	***
NCNT	<-- -	TCHA	.655	.708	5.566	***
NCNT	<-- -	RSTD	.061	.094	5.464	***
NCNT	<-- -	CEDU	.097	.173	7.089	***
HCSN	<-- -	NCNT	.991	.716	12.528	***
CBEV	<-- -	NCNT	.647	.573	7.936	***

CBEV	<-- -	HCSN	.076	.093	6.544	***
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*** Significant at 1%

After applying the structural equation model, it is important to assess fit indices to determine how well the model corresponds with the data. The findings reveal a strong compatibility between the model and the data. The CMIN/df value is 4.926, which lies within the acceptable range of 3 to 5, indicating a good fit. The RMSEA value is 0.053, staying under the maximum acceptable limit of 0.06. Additionally, baseline comparison indices (RFI = 0.912, NFI = 0.915, CFI = 0.921, IFI = 0.921, and TLI = 0.916) and goodness of fit indices (GFI = 0.905 and AGFI = 0.903) are all above 0.9. These values collectively suggest that the model aligns well with the data.

Table 2 shows that the path values are significant at 1% level for entire antecedents. The p-values confirms that (H_{1.1}) antecedents have significant impact on consumer education, regulatory standards, technological advancements, nutritional content, health consciousness, and buying behaviour. One-unit upsurge in extent of information about health eating and nutrition, ability to understand nutritional labels and guidelines, accessibility of reliable source of nutrition information, and cultural attitudes towards nutrition will boost consumer education by 1-unit, 1.003-unit, 0.680-unit and 0.791-unit respectively. Ability to understand nutritional labels and guidelines has a higher effect on consumer education (0.903), while access to reliable nutrition information has a relatively lower impact (0.630). For regulatory standards (RSTD), one-unit upsurge in printing nutritional information on food, compliance with manufacturers, dietary guidelines, and policy changes will enhance regulatory standards by 1-unit, 1.024-unit, 0.623-unit, and 0.706-unit, respectively. Compliance and enforcement exert a higher influence (0.877), whereas dietary guidelines have a smaller effect (0.530). One-unit increase in food processing techniques, genetic modification, and digital tools will boost technological advancements (TCHA) by 1-unit, 1.133-unit, and 0.786-unit, respectively. Food processing techniques show a slightly higher effect (0.667) than genetic modification (0.665), while digital tools have the least influence (0.538).

For nutritional content (NCNT), one-unit rise in macro-nutrient composition, antioxidants, caloric values, dietary fiber, vitamins, and pesticides will lead to increases of 1-unit, 1.135-unit, 1.124-unit, 0.864-unit, 1.161-unit, and 1.018-unit, respectively. Vitamins and minerals have the highest effect (0.780), and dietary fiber has the lowest (0.577). One-unit increase in perceived family health, knowledge of wellness, proactive health measures, health risk awareness, self-assessment, and attitude towards preventive healthcare will boost health consciousness (HCSN) by 1-unit, 1.217-unit, 0.741-unit, 0.607-unit, 1.206-unit, and 0.611-unit, respectively. Knowledge of wellness has the greatest effect (0.980), while health risk awareness has the smallest (0.510). Lastly, for buying behavior (CBEV), one-unit increase in purchase frequency, willingness to pay a premium, social norm, loyalty, environmental concerns, and perceived quality will increase buying behavior by 1-unit, 1.287-unit, 1.328-unit, 0.831-unit, 0.536-unit, and 0.983-unit, respectively. Social norms have a high impact (0.889), while environmental concerns have a lower influence (0.401).

The computed p-values are significant and (H_{1.2}) is authenticated. Therefore, consumer education, regulatory standards, and technological advancements have significant impact on nutritional content. Results confirms that one-unit upsurge in consumer education, regulatory standards, and technological advancements will boost nutritional content by 0.655-unit, 0.061-unit, and 0.097-unit respectively. Technological advancements have higher effect and regulatory standards have lower effect on nutritional content. The hypothesis (H_{1.3}) nutritional content has significant impact on buying behaviour of organic foods is accepted, because p-value is significant at 1% level. One-unit rise in nutritional content will increase buying behaviour by 0.647-unit. The results confirm that consumer education, regulatory standards, and technological advancements significantly impacts nutritional content of organic food products, eventually it impacts buying behaviour.

Mediating Effect of HCSN between NCNT and CBEV

The mediating role of health consciousness between nutritional content and buying behavior for organic food products is analyzed. The hypothesis suggests that health consciousness acts as a mediator between nutritional content and buying behavior (H_{1.4}).

Table 3: HCSN between NCNT and CBEV

Impact	Path			Estimate	p
Mediation Impact – Path A	HCSN	<---	NCNT	.991	***
Direct Impact	CBEV	<---	NCNT	.647	***
Mediation Impact – Path B	CBEV	<---	HCSN	.076	***

*** Significant at 1%

Table 3 shows that health consciousness significantly impacts buying behavior towards organic food, with a coefficient of 0.647, demonstrating a positive relationship. The mediation analysis shows that nutritional

content affects health consciousness to the extent of 0.991, while health consciousness impacts buying behavior by 0.076. The calculated mediation value is 0.075316, leading to an overall effect of 0.722316. The variance, at 0.1043, is below the threshold of 0.2, confirming no mediation effect. Hence, health consciousness does not mediate the relationship between nutritional content and buying behavior.

Impact of Socio-Economic Profile on Research Constructs

The impact of socio-economic profile of consumers on research variables are analyzed using One-way ANOVA test. The hypothesis confirms that ($H_{1.5}$) socio-economic profile has significant impact on research variables.

Table 4: One-way ANOVA

Variables	Gender		Age		Academic Status		Monthly Earnings		Profession	
	t	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
CEDU	1.538	.216	1620.677	.000***	140.933	.000***	56.575	.000***	253.192	.000***
RSTD	.195	.659	107.308	.000***	58.400	.000***	9.776	.000***	45.121	.000***
TCHA	.363	.547	135.015	.000***	50.417	.000***	14.721	.000***	79.706	.000***
NCNT	.156	.693	161.231	.000***	67.438	.000***	16.248	.000***	96.945	.000***
HCSN	.434	.510	208.829	.000***	51.189	.000***	21.881	.000***	116.990	.000***
CBEV	3.471	.063	100.716	.000***	40.869	.000***	15.623	.000***	66.054	.000***

*** Significant at 1%.

Table 4 reveals that gender has no significant effect on research variables. On the other hand, age, academic status, monthly earnings and profession has significant effect on research variables such as consumer education, regulatory standards, technological advancements, nutritional content, health consciousness, and buying behaviour. The significant results are adhered for post-hoc test. For age, Scheffe post-hoc test formed three identical subsets, below 30 years in subset *a*; 30 – 40 years in subset *b*; and above 45 years in subset *c* for consumer education, regulatory standards, technological advancements, nutritional content, health consciousness and buying behaviour. For academic status, Ryan-Einot-Gabriel-Welsch Range post-hoc test formed two identical subsets, School/Diploma in subset *a*; and UG and PG in subset *b* for consumer education, regulatory standards, technological advancements, nutritional content, health consciousness and buying behaviour. For monthly earnings, Duncan post-hoc test formed three identical subsets, less than Rs.30,000 in subset *a*; Rs.30,000 – 60,000 in subset *b*; and more than Rs.60,000 in subset *c* for consumer education, nutritional content. It also formed two identical subsets, less than Rs.30,000 and Rs.30,000 – 60,000 in subset *a*; and more than Rs.60,000 in subset *b* for regulatory standards, technological advancements, health consciousness and buying behaviour. For profession, Tukey HSD post-hoc test formed three identical subsets, business in subset *a*; and employed in subset *b*; and retired/agriculture in subset *c* for consumer education, regulatory standards, technological advancements, nutritional content, health consciousness, and buying behaviour.

VII. Conclusion

Result highlights the substantial impact of nutritional content on the buying behavior of organic food products. Consumer education emerges as a main dimension, with the ability to understand nutritional labels and guidelines having the highest influence. Access to reliable nutrition information and cultural attitudes toward food also contribute, though they exert a relatively lower impact. It confirms the need for enhancing public understanding of nutritional information to improve health-conscious choices among consumers. In terms of regulatory standards, compliance with food manufacturers and enforcement mechanisms are shown to have the most significant effect on shaping consumer behavior, with dietary guidelines playing a comparatively smaller role. It proves the importance of stringent regulations and clear enforcement to boost consumer trust and engagement in choosing organic products. Policy changes and regulations regarding organic food further contribute to strengthening these standards, emphasizing the role of governance in guiding consumer choices towards healthier alternatives. Technological advancements in food processing techniques, genetic modification, and the use of digital tools for nutritional analysis also play a pivotal role. Among these, food processing techniques have a slightly higher impact, followed closely by genetic modifications, while digital tools show a relatively lower effect. It shows that while innovation in food technology contributes to better nutritional content, traditional methods like food processing remain critical in driving consumer preference for organic products.

Nutritional content remains a significant determinant of health consciousness and buying behavior. Elements such as the presence of vitamins, minerals, and antioxidants have a stronger effect on health awareness than factors like dietary fiber and caloric values. Health consciousness is primarily shaped by knowledge of wellness and self-assessment of health status, while awareness of health risks has a lower impact. Despite its importance in influencing buying behavior, health consciousness does not mediate the relationship between nutritional content and consumer behavior. It proves that the direct effect of nutritional content plays a more

substantial role in shaping consumer decisions than an indirect pathway through health consciousness. It is confirmed that consumer education, regulatory standards, and technological advancements significantly affect the nutritional content of organic food products, which in turn influences consumer buying behavior. However, health consciousness, while important, does not mediate this relationship. Socio-economic factors, such as age, academic status, monthly earnings, and profession, also delivered fundamental role in moderating the effects of these variables, indicating that targeted strategies may be required for different consumer groups to promote organic food choices effectively.

VIII. Research Implications

The findings generate better suggestions for marketers and policymakers in the organic food sector. Marketers can emphasize the nutritional benefits of organic products to appeal to health-conscious consumers, as nutritional content directly influences buying behavior. Additionally, developing clear and accessible nutritional labels can enhance consumer education and help buyers make informed choices. Policymakers should focus on enforcing stricter regulations around labeling and quality standards, ensuring transparency in the organic food market. Health consciousness shows main task in shaping buying behavior, its lack of mediation between nutritional content and purchasing decisions suggests that marketing strategies should prioritize the direct communication of nutritional value to drive consumer engagement with organic products.

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