

Sustainable Consumption : Consumer Behavior When Purchasing Sustainability-Labeled Food Products

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Abstract

Purpose : With growing concern about sustainability, consumers are trying to make sustainable purchase decisions. Sustainability labels are visual communicators of sustainability product information differentiating between conventional and sustainable products. Various studies reported positive consumer behavior toward sustainable consumption. This paper aimed to identify the factors influencing consumers' behavior while purchasing sustainability-labeled food products and the moderating effect of the income variable.

Methodology : For the study, five hypotheses were developed from relevant literature support to form a conceptual framework. A total of 498 Indian consumers participated in the survey. The variables selected for the study were validated by confirmatory factor analysis. The proposed model was examined using structural equation modeling. The correlation between constructs correlation was measured, and the overall model fit was validated. Confirmatory factor analysis was used to validate the variables selected for the study. Structural equation modeling was used to test the proposed model. Correlation among constructs was measured. Analysis of moment structure was used to assess the overall model fit.

Findings : The study revealed that the five constructs, namely, purchase intention, awareness, environmental consciousness, moral obligations, and subjective norms, significantly influenced consumer behavior. Further, it was substantiated with a good model fit with consumer income as the moderating factor. The study supported the applicability of Ajzen's theory of planned behavior.

Practical Implications : The study's findings will affect the food processing industry and third-party certification agencies. This study will guide policymakers by providing significant insights into consumer behavior toward sustainability-labeled food products. The study also provided suggestions to promote sustainability labels that are currently voluntary.

Value : The proposed model in the study helped understand the Indian consumer behavior toward sustainability-labeled food products and promote sustainable consumption and production among various stakeholders of the food processing industry.

Keywords : sustainable consumption, consumer behavior, sustainability label theory of planned behavior (TPB), structural equation modeling (SEM)

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Recently, alarming concern over environmental degradation is endangering the planet's ecosystem. The economic, social, and environmental dimensions of sustainability aim to balance resources for current and future generations. After several decades, the idea of sustainability by using the environment and

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natural resources to have less impact on the planet Earth gained momentum at every global platform. Goal no. 12 of the 2030 UNEP Sustainable Development Goals agenda proposes to ensure sustainable production and consumption. The Covid-19 pandemic propositions allowed framing recovery plans to change contemporary trends by improving consumption and production patterns toward a more sustainable future (Giri et al., 2022). Therefore, it is evident that sustainable consumption, including sustainable food consumption, has become the focus of green economies in this century.

Due to global discussions on various platforms, consumers are aware of the seriousness of climate change. Ecologically conscious consumers are more likely to follow environment-friendly diets and product purchases (Chi, 2022; Jürkenbeck et al., 2021). The ecological challenges from the recent pandemic have made adopting green production practices relatively important. Different industries favoring sustainable business practices are making consistent efforts besides following social and ethical practices to achieve desired sustainable goals (Klassen & McLaughlin, 1996; Ramirez, 2013). Sustainable consumption gained greater attention in the elite/higher-income segment with positive growth trends (Rausser et al., 2015). Consumer income has a positive relationship with sustainable consumption behavior (Yu et al., 2014). A sustainable production approach has led consumers to differentiate between more or less eco-friendly options. With a growing demand for sustainable consumption and production, both consumers and industries are willing to contribute toward sustainable development (Quoquab & Mohammad, 2016).

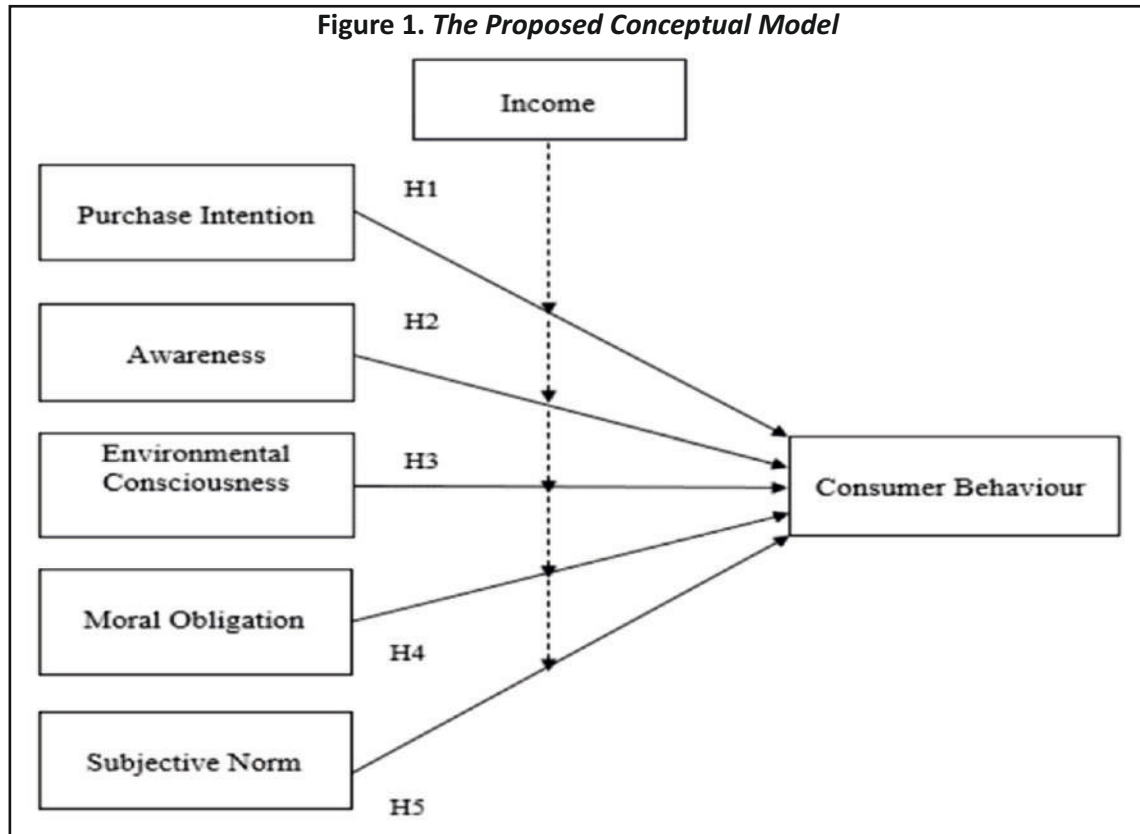
A sustainability label is a crucial product attribute in marketing that communicates products' sustainable features. It stands similar in the case of eco-labels (Vertinsky & Zhou, 2000). In India, mandatory labels pertained only to food safety and nutrition for processed food products. Recently, food processing firms voluntarily adopted sustainability labels like the Forest Steward Council (FSC) and Carbon Neutral Footprint (Ministry of Corporate Affairs, 2011). Nielsen Company conducted a global survey in 58 countries on consumer shopping behavior and revealed that 71% of Indian shoppers choose environmentally-friendly products even though the price is higher (Nielsen, 2013). Thus, it can be inferred that because of increasing demand, sustainability labels have commercial potential to add value to businesses, which can increase sales (Shetty et al., 2022). Though many studies provide evidence of sustainable consumption behavior about food products, a strong academic contribution concerning Asia to sustainability-labeled food products is still missing.

Theoretical Framework

Conceptual Framework

This research study aims to determine the factors affecting consumer behavior while purchasing sustainability-labeled food products. The present conceptual framework consists of five constructs. Purchase intention, subjective norms, and moral obligations are part of a well-established theoretical framework adopted from the theory of planned behavior (TPB) (Ajzen, 1991) and Schwartz's concept of personal norms (morals) and values (Schwartz, 1977). While the other two constructs, namely, environmental consciousness and consumer awareness, are identified and adopted from similar studies (Asif et al., 2018; Jaiswal & Kant, 2018; Taufique, Siwar, Talib, Sarah, & Chamhuri, 2014).

The theory of planned behavior is broadly accepted in social and psychological studies, and its use is pragmatic in evaluating consumer behavior. TPB is a social psychology theory developed to explain individual behavior in general. Intention is referred to as “the motivation drive towards behavior;” the subjective norm is a “perceived social pressure to perform or not to perform the behavior.” TPB is widely used to determine sustainable consumer behavior in green marketing studies (Prakash & Pathak, 2017). The construct of moral obligation is considered a social norm that guides society or individuals to decide what is right or wrong. Consumer awareness and



environmental consciousness are crucial in determining consumer behavior as they are considered important in understanding sustainability-related concerns (Grunert et al., 2014; Jaiswal & Kant, 2018). The constructs adopted in the study provide a reasonable perspective for the proposed framework. According to specific populations and consumer behaviors, selected constructs were further modified for the study. The proposed framework outlines the hypothesized relationships (Figure 1).

Consumer Behavior

Previous studies focused on sustainable consumption, production, and purchase decisions for food products (Nikolaou & Tsalis, 2018; Verain et al., 2015). Consumers' sustainability issues and concerns differed from one to another, and so did their behavior. Consumer behavior for sustainability-labeled food products (SLFP) depends on different factors, and behavioral actions significantly impact it. Grunert et al. (2014) found that sustainability labels had a minor role in consumer food choices, as their future demand depends on the conversion of consumers' general concern about sustainability into actual behavior.

In the Asian region, a limited number of studies have examined the factors for consumer behavior in sustainability-labeled processed food products. Moreover, research in this area is even more sparse with Indian consumers, revealing a major gap for this paper. Thus, the present study attempts to highlight the factors affecting consumer behavior with specific reference to sustainability-labeled food products. Food labels come with a quotient to increase transparency and with an informed food purchasing decision. Sustainability-labeled food products can empower the consumer to consume more sustainably, and companies can gain a competitive advantage in the market, differentiating their products from the rest.

Purchase Intention

An intention is a determination to act in a certain way (Ajzen, 1991). The theory of planned behavior states that intention is behavioral actions in a given situation with suitable opportunities. Ghose and Chandra (2020) found that product availability and affordability impacted purchase intention in sustainable consumption behavior. Further, green purchase intentions positively influenced consumer behavior (Cai et al., 2017). Purchase intention is considered to have a significant relationship with consumer behavior (Asif et al., 2018; Zhao et al., 2018). Further, intention is considered a significant predictor of consumer behavior toward sustainability-labeled products (De Andrade Silva et al., 2017). So, the first hypothesis for this study can be proposed as:

☞ **H1** : Purchase intention has a significant positive impact on consumer behavior toward sustainability-labeled food products.

Consumer Awareness

This study also explores the role of awareness as a variable in consumer behavior toward SLFP. Many consumers know the term “sustainable product” but not sustainable labels (Krasnowska & Salejda, 2011; Taufique, Siwar, Talib & Chamhuri, 2014). Awareness about sustainability labels can be determined by the label or logo present on the product. The label information should not be complex to understand. Prior knowledge about sustainability labels can be advantageous for SLFP awareness (Grunert et al., 2014). As per Severo et al. (2021), sustainable consumption, environmental awareness, and social responsibility significantly influenced consumers' pro-environmental behavior. Therefore, more awareness leads to more impact on consumer behavior. Thus, the present study examines the role of awareness in the overall promotion of sustainable consumer behavior for SLFP. Hence, the next hypothesis may be formulated as follows:

☞ **H2** : Consumer awareness significantly influences consumer behavior toward sustainability-labeled food products.

Environmental Consciousness

Consumer consciousness about environmental issues is realizing what is happening in and around the ecosystem surrounding us. It is a mindful purpose of preservation of the environment and natural resources for future generations. It can also be defined as the action-oriented cognitive behavior of individuals after realizing the impact of their actions on the ecosystem (Frick et al., 2004). Sustainable lifestyle choices are supported by robust environmental consciousness (Bamberg & Möser, 2007). According to Kumar (2012), consumers favored products with less environmental impact. Pohjolainen et al. (2016) reported that environmental consciousness leads to sustainable consumption through an action-based approach because of the pro-environmental behavior of consumers. Consumers with environmental consciousness are expected to have a positive behavioral inclination towards SLFP. Thus, the third hypothesis can be framed as follows:

☞ **H3** : Environmental consciousness positively affects consumer behavior toward sustainability-labeled food products.

Moral Obligations

Moral norms are considered part of Schwartz's concept of personal norms. Moral norms guide individuals to take responsible action encompassing personal values and ethics. Consumer behavior toward sustainable issues is the

implication of the individual's values and ethics which enhances a sense of moral responsibility to act in a certain way. These values and ethics motivate consumers to make the right choice that benefit the environment and contribute toward sustainability (Dowd & Burke, 2013). Research studies reported that the moral norms of individuals played a significant role in assessing sustainable consumption behavior, motivating consumers to choose eco-friendly products (Tanner & Kast, 2003; Vermeir & Verbeke, 2008). Based on the above discussions, the subsequent hypothesis is proposed :

⇒ **H4** : Moral obligations significantly influence consumer behavior toward sustainability-labeled food products.

Subjective Norms

The other construct of the TPB is postulated as subjective norms. According to Ajzen (1991), subjective norms persuade an individual to endorse or reject a subject based on the personal value system. A study by Minton et al. (2018) concluded that subjective norms associate factors like belief, trust, satisfaction, etc., which influence consumers' attitudes leading to sustainable behavior. Subjective norms seem to positively affect consumers' purchase behavior (Chan & Lau, 2002). Studies reported that subjective norms can influence consumer decision-making for sustainable consumption choices (Kimura et al., 2010; Verain et al., 2015). It is, therefore, hypothesized that:

⇒ **H5** : Subjective norms positively influence consumer behavior toward sustainability-labeled food products.

Income

Consumer income is reported to significantly influence a positive relationship with responsible consumption behavior (Gandhi & Kaushik, 2016). Consumers with higher incomes purchase sustainable products more often and are willing to pay more for eco-friendly products (Sörqvist et al., 2013). Further, sustainable consumption behavior is similar to other demographic dividends like age, education, and gender (Marette et al., 2012). Regarding the Asian region, affordability is the primary consideration in purchasing the product (Mohamed et al., 2014). Studies from the two most populated countries in the world, China and India, reported that wealthier households are likely to spend more on eco-labeled and organic sustainable food products (Singh & Verma, 2017; Tait et al., 2016). Hence, examining the moderating relationship between income and consumer behavior is essential.

⇒ **H6a** : Consumer income moderates positively between purchase intention and consumer behavior.

⇒ **H6b** : Consumer income moderates positively between awareness and consumer behavior.

⇒ **H6c** : Consumer income moderates positively between environmental consciousness and consumer behavior.

⇒ **H6d** : Consumer income moderates positively between moral obligation and consumer behavior.

⇒ **H6e** : Consumer income moderates positively between subjective norms and consumer behavior.

Research Methodology

Sample and Data Collection Procedure

Extending from the north to south, one can find cultural diversity in India, and people from all over the country come to metro cities for education and employment. Hence, two metro cities, New Delhi from Northern India and

Hyderabad from Southern India, were selected to maintain sample heterogeneity, assuming that the respondents belong to different regions of India with diverse cultural and socio-demographic backgrounds. The study was conducted from March 2018 – February 2019. A total of 620 respondents, who were regular grocery shoppers with purchase experience of processed food products, participated in the survey. After rejecting significantly unclear and missing responses, 498 valid responses were obtained, arriving at a response rate of 80%. Responses were further subjected to data analysis. Therefore, it was assumed that the sample included knowledgeable, eco-friendly processed food buyers.

Data Source and Measurement Scale

Empirical data were collected through a structured questionnaire. Nineteen items were anchored on a 5-point Likert scale, where 1 being *strongly disagree* and 5 being *strongly agree*. Most of the items were adopted and modified from previous cross-referred similar studies of Grunert et al. (2014), Asif et al. (2018), Joshi and Rahman (2017), Ma et al. (2017), Singh and Verma (2017), Sogari et al. (2016), Stone et al. (1995), and Wang et al. (2014). Socio-demographic characteristics of respondents, namely age, gender, marital status, level of education, and monthly income, were also collected (Table 1). The questionnaire was piloted with 60 consumers to ensure clear response formats. Based on the feedback from the pilot study, minor amendments were made to the questionnaire.

Data Analysis and Results

The coded responses were analyzed using Statistical Package for Social Sciences (SPSS) for CFA. Cronbach's alpha method was used to check the reliability of empirical data and determine the internal consistency of the items related to the construct. Structural equation modeling was conducted to test the hypothesized model structure. Confirmatory factor analysis (CFA) was used to evaluate the reliability and validity of the measurement model. Analysis of moment structure (AMOS) constructed model was estimated to assess the overall model fit. Further, the hypothesized relationship among the constructs was determined using standard regression coefficients (β) and p -values.

Description of the Sample

The demographic profile of the consumers was analyzed, and the summary is presented in Table 1. The final sample consisted of 498 responses with a 60:40 male-to-female ratio. Almost 46% of the respondents were young adults under the age group of 16–35 years, followed by the 36–45 year age group (28%) and married (49%). Overall, the educational background of the consumers was high, with 31% being postgraduates, followed by graduates (22%). The majority of the respondents were housewives (25%), followed by employed (21%). The results indicate that about 30% of the respondents had a monthly income above ₹ 50,000, closely followed by 26% in a monthly income bracket of ₹ 40,000 – ₹ 50,000.

Table 1. Socio-Demographic Profile of the Respondents (n = 498)

Variables	Regular Buyer	Occasional Buyer	Non-Buyer	Total (%)
Gender				
Male	18	15	27	60
Female	19	11	10	40
Age Group				

16 – 25	5	9	6	21
26 – 35	9	11	6	25
36 – 45	6	9	13	28
46 – 55	5	7	2	14
55 and above	5	6	1	12
Marital Status				
Single	12	18	8	38
Married	18	21	10	49
Other	5	6	2	13
Educational Qualification				
Undergraduate	6	7	4	16
Graduate	10	7	5	22
Postgraduate	10	10	11	31
Doctorate	9	8	4	20
Other	3	4	4	11
Occupation				
Student	7	7	19	34
Private/ Govt. Employee	5	7	8	21
Self Employed	4	5	2	10
Home Manager/Housewife	8	11	6	25
Other	4	4	3	10
Monthly Income (in ₹)				
< 20,000	2	2	6	10
21,000 – 30,000	4	4	8	16
31,000 – 40,000	5	4	9	18
41,000 – 50,000	10	7	9	26
> 50,000	12	8	10	30

Measurement Model

Confirmatory factor analysis was carried out to measure the validity of the constructs. The model fit indices of all the constructs are deemed to be acceptable ($\chi^2 = 280.55$, $\chi^2/df = 4.06$, GFI = 0.982, AGFI = 0.971, NFI = 0.934, IFI = 0.944, TLI = 0.927, CFI = 0.944, and RMSEA = 0.52). The reliability scores are satisfactory for all the constructs, with Cronbach's alpha value more than 0.86. The results from the KMO test show that sample adequacy is significant, i.e., more than 7 for factor analysis (Table 2). Eight low item-to-total correlations were

Table 2. KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy		0.796
Bartlett's Test of Sphericity	Approx. Chi-Square	7306.414
	df	153
	Sig.	0.000

deleted from the scale (less than 0.50), and one item was deleted that did not load on any factor as it explained less than 5% of the variance made single factor (Tinsley & Tinsley, 1987). Finally, the 19-item scale possessed a high internal reliability score, with three constructs having coefficient alpha values greater than 0.90 and 0.70 for the rest. From the measurement model, the convergent and discriminant validity of the constructs was assessed using composite reliability (CR), average variance extracted (AVE), and factor loadings. The CR ranged from 0.98–0.63, meeting the criterion of above 0.6 (Bagozzi & Yi, 1988). The standardized factor loadings were between 0.97–0.56, and the value of AVE ranged from 0.621–0.930, maintained above 0.5 for all the items (Fornell & Larcker, 1981), ensuring a good convergent validity among all the constructs. The values of reliability and validity scores are shown in Table 3. Finally, the square root of the AVE of each construct is greater than the correlation between the constructs, ensuring discriminant validity. It is presented in Table 4. Thus, the theoretical model has adequate convergent and discriminant validity and reliability.

Table 3. Measurement Model (Reliability and Validity)

Dimensions and Variables	Factor Loadings	SMC	Cronbach's α	Composite Reliability	AVE
Purchase Intention			0.980	0.982	0.930
PI1	0.975	0.588			
PI2	0.967	0.650			
PI3	0.963	0.610			
PI4	0.952	0.625			
Awareness			0.916	0.945	0.850
AW1	0.931	0.972			
AW2	0.918	0.920			
AW3	0.917	0.907			
Environmental Consciousness			0.908	0.899	0.748
EC1	0.878	0.756			
EC2	0.864	0.669			
EC3	0.854	0.909			
Moral Obligations			0.865	0.824	0.610
MO1	0.821	0.785			
MO2	0.799	0.878			
MO3	0.720	0.749			
Subjective Norms			0.877	0.872	0.696
SN1	0.897	0.418			
SN2	0.834	0.728			
SN3	0.766	0.484			
Consumer Behavior			0.699	0.632	0.621
CB1	0.656	0.419			
CB2	0.592	0.550			
CB3	0.560	0.542			

Note. AVE = Average variance extracted ; SMC : Squared multiple correlation.

Table 4. Correlation Among the Constructs

Constructs	PI	AW	EC	MO	SN	CB
PI	0.865					
AW	0.222**	0.823				
EC	0.754**	0.133**	0.760			
MO	0.267**	0.051**	0.199**	0.672		
SN	0.481**	-0.200**	0.418**	0.235**	0.584	
CB	0.032**	-0.189**	0.456**	0.258**	0.328**	0.604

Note. Bold and italics represent the square root of AVE.

**Correlation is significant at a 0.05 level.

Analysis of Structural Model and Hypothesis Testing

Further, the data was used to test the model fit and hypothesis. The values indicate that the proposed model fits the data well ($\chi^2 = 136.55$, $\chi^2/df = 1.56$, GFI = 0.931, AGFI = 0.897, NFI = 0.947, IFI = 0.980, TLI = 0.974, CFI = 0.980, and RMSEA = 0.052). The observed AGFI value is 0.897, which exceeds the cut-off level of 0.8 (Chau & Hu, 2002), while all other indices are above the recommended criteria (Byrne, 2011; Rigdon, 1996). Table 5 represents the goodness of fit indices of the structural model. The standard regression coefficients were analyzed to test the hypotheses of the proposed conceptual model. The results obtained show that all the proposed alternate hypotheses are accepted. Purchase intention emerges as the strongest predictor of consumer behavior toward SLFP ($\beta = 0.59$, $p \leq 0.01$). Awareness about sustainability labels significantly impacts consumer behavior toward SLFP ($\beta = 0.48$, $p \leq 0.01$). Environmental consciousness significantly influences consumer behavior toward SLFP ($\beta = 0.384$, $p \leq 0.01$). Further, moral obligations positively affect consumer behavior toward SLFP ($\beta = 0.284$, $p \leq 0.01$); Finally, the subjective norms have a positive influence on consumer behavior toward SLFP ($\beta = 0.183$, $p \leq 0.01$).

The moderating effect of the income variable was investigated using a standardized regression coefficient between all the constructs. The results show that income moderates positively between purchase intention, moral obligations, subjective norms, and consumer behavior ($p < 0.05$) (Table 6). However, income is a non-significant moderating variable for awareness and environmental consciousness ($p > 0.05$). Figure 2 shows the results of

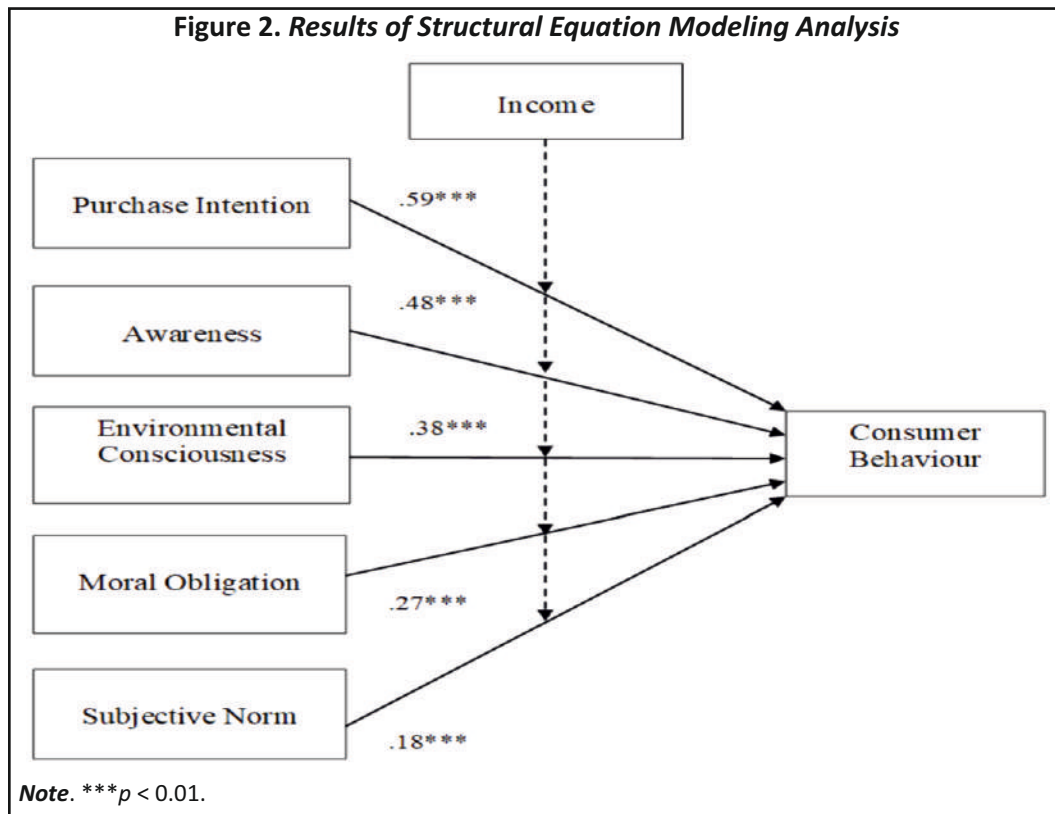
Table 5. Structural Model Fit Indices

Model Fit indices	Obtained Value	Recommended Values
Chi-square (χ^2)	136.55	N/A
χ^2/df	1.560	≥ 1 & ≤ 5
Goodness of Fit Index (GFI)	0.931	≥ 0.90
Adjusted Goodness of Fit Index (AGFI)	0.897	≥ 0.80
Normed Fit Index (NFI)	0.947	≥ 0.90
Incremental Fit Index (IFI)	0.980	≥ 0.90
Tucker – Lewis Index (TLI)	0.974	≥ 0.90
Comparative Fit Index (CFI)	0.980	≥ 0.90
Root Mean Square Error of Approximation (RMSEA)	0.052	≥ 0.08

Table 6. Results of Hypothesized Direct Effects in the Model

Hypothesis	Statement	β coefficient	Significance	Status
H1	Purchase intention has a significant positive impact on consumer behavior toward sustainability-labeled food products.	0.597	0.000	Accepted
H2	Consumer awareness significantly influences consumer behavior toward sustainability-labeled food products.	0.489	0.021	Accepted
H3	Environmental consciousness has a positive effect on consumer behavior toward sustainability-labeled food products.	0.384	0.033	Accepted
H4	Moral obligations significantly influence consumer behavior toward sustainability-labeled food products.	0.274	0.004	Accepted
H5	Subjective norms positively influence consumer behavior toward sustainability-labeled food products.	0.183	0.020	Accepted
H6a	Income moderates positively between purchase intention and consumer behavior.	0.267	0.006	Accepted
H6b	Income moderates positively between awareness and consumer behavior.	0.028	0.428	Rejected
H6c	Income moderates positively between environmental consciousness and consumer behaviour.	0.017	0.379	Rejected
H6d	Income moderates positively between moral obligations and consumer behavior.	0.146	0.008	Accepted
H6e	Income moderates positively between subjective norms and consumer behavior.	0.285	0.000	Accepted

Figure 2. Results of Structural Equation Modeling Analysis



SEM analysis along with β coefficient values. Also, the adjusted R^2 value explains an excellent explanatory power in measuring consumer behavior toward SLFP (Adjusted $R^2 = 0.749$, i.e., 74.9%). To a great extent, the TPB helps to identify the important factors influencing consumer behavior toward SLFP. Therefore, the TPB model can be effectively applied in predicting consumer behavior.

Discussion and Managerial Implications

The Covid-19 pandemic has compelled the world to act more sustainably to recover from the economic and social crisis. Sustainable consumption and production are reimagined forms of the “new normal” to support green recovery. With time, consumers are making sustainable consumption decisions. Industries are following sustainable production practices to contribute responsibly toward the ecosystem to achieve sustainable development goals (Bhatti & Negi, 2018). Indian consumers are also conscious of making sustainable purchasing decisions to realize their responsibility toward the environment. The present study is carried out to explore the impact of various factors responsible for consumer behavior toward SLFP. Consumers have a positive orientation toward sustainability-related issues and environmental concerns. The study reveals that purchase intention is the strongest among all the other important predictors of consumer behavior toward SLFP. The results infer that consumers project a positive inclination for sustainability-labeled products with respect to product availability, affordability, and brand preference. However, purchase intention exists when convenience, brand, and price variables are satisfied. A few studies also reported the importance of purchase intention on consumer behavior (De Andrade Silva et al., 2017; Zhao et al., 2018).

Awareness is the next important predictor of consumer behavior for SLFP. Awareness among consumers about sustainability labels can create a better understanding of such products, which contribute toward sustainability parameters. Consumer awareness about sustainability issues can also impact consumer minds and motivate them to contribute toward preserving and maintaining the ecosystem. Taufique, Siwar, Talib, and Chamhuri (2014) reported that knowledge about food product labels is a prerequisite during purchase decisions. Environmental consciousness is found to be a significant influencing factor in consumer behavior. It implies a sense of responsibility to protect the environment persists among Indian consumers. Such concerns can result in consumer orientation toward eco-friendly products. Bamberg and Möser (2007) reported in their study that sustainable lifestyle choices are supported by strong environmental consciousness.

Moral obligations also have a significant positive relationship with consumer behavior. It implies that Indian consumers tend to be influenced by moral norms in a great way. Individual values and ethics drive them to act in a certain way that is morally correct to benefit the environment. Yadav and Pathak (2017) found that moral attitude was important in predicting Indian consumer behavior based on the TPB model. Thus, an individual's moral obligation comes as a responsibility that drives consumers to adopt sustainably resourced products, attaining positive behavior toward SLFP.

Similarly, subjective norms also significantly positively impact consumer behavior toward SLFP. Indian consumers are oriented toward SLFP because of social influence in their decision-making process and the association of trust. The results reflect that the more they associate trust, the more they behave positively toward SLFP. Income is found to moderate significantly. The higher consumer income segment is found to positively impact purchase intention, moral obligations, and subjective norms variables.

Although many studies examined consumer behavior toward eco-friendly products, a handful of research studies have focused on sustainability labels (Cosmina et al., 2016; Janßen & Langen, 2017; Van Loo et al., 2014) and very limited on Indian consumers (Gandhi & Kaushik, 2016; Jaiswal & Kant, 2018). Thus, the present study aims to address the gap with empirical evidence.

Conclusion

The present study is conducted to increase understanding of Indian consumers' behavior toward processed food products with sustainability labels. The study supports the applicability of the theory of planned behavior model as purchase intention, moral obligations, and subjective norms are found to significantly influence consumer behavior towards sustainability-labeled food products along with two other additional constructs, namely awareness about sustainability labels and environmental consciousness. Sustainability is a widely adapted concept in consumables, but more significantly, it tends to be an issue of general interest where many driving factors are determined. To convert the overall general interest of consumers into actual behavior regarding sustainability, companies should make available more of such sustainable food products and grasp consumers' attention through labeling. By buying eco-friendly products, consumers can commit to the future sustainably, which may also encourage other producers and retailers to offer sustainability-labeled products.

Limitations of the Study and the Way Forward

The present study has been conducted in two metro cities in India. For future research, a large representative sampling from other cities and nations can be considered to test more hypotheses and moderate the effects of demographics with better statistical tools. Indian consumers subconsciously favor eco-friendly products, but more research is needed to understand Indian consumers' behavior toward specific sustainability-labeled food products.

Authors' Contribution

Zainab Sharief conceived the idea and developed a research design to undertake the empirical study. Zainab Sharief conducted the survey, computed the data, and analyzed the results. Dr. Anupama Panghal verified the analytical methods and supervised the study. Both authors discussed the results and contributed to the final manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this manuscript.

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Appendix

A. Survey questions

Rate your level of agreement (1-Strongly disagree to 5- Strongly agree)

Purchase Intention (PI)

- PI1 If products with sustainability-related labels are affordable, then I would prefer to purchase those.
PI2 If products with sustainability-related labels are available, I would prefer to purchase those.
PI3 If my preferred brand will have a sustainability label, then I would prefer to purchase it.
PI4 I intend to purchase sustainability-labeled food products in the near future.

Awareness (A)

- A1 Awareness about sustainability-related issues should be more.
A2 Awareness about sustainability labels should be more.
A3 Sustainability labels should be easy to understand*.

Environmental Consciousness (EC1)

- EC1 I want to use natural resources efficiently.
EC2 I want to use recyclable products.
EC3 I want to use biodegradable products.

Moral Obligations (MO)

- MO1 I am responsible towards the environment.
MO2 I am a socially and ethically responsible person.
MO3 I feel concerned about sustainability issues.

Subjective Norms (SN)

- SN1 I associate more trust with the brands following sustainable practices.
SN2 I associate more trust with SLFP.
SN3 I associate satisfaction with SLFP.

Consumer Behavior (CB)

- CB1 I will contribute towards sustainability.
CB2 I will associate food with sustainability.
CB3 I plan to have sustainability-labeled products.
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Note. *Items were reverse-scored during the analysis.

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