

INFLUENCE OF FOOD LABEL AWARENESS ON EMERGING PACKAGED FOOD BRANDS

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ABSTRACT

Food label information represents a key mechanism through which emerging packaged food brands communicate product quality and reduce information asymmetry in consumer markets. The influence of food label awareness on consumer trust and willingness to pay for emerging packaged food brands was examined among consumers in Coimbatore, India. Data were collected from 300 packaged food consumers, of whom 257 respondents reported awareness of emerging packaged food brands and were retained for analysis. Covariance-based structural equation modeling was employed to evaluate the proposed relationships among Food Label Awareness (FLA), Consumer Trust (CT), and Willingness to Pay (WTP). The measurement model demonstrated satisfactory psychometric properties, with composite reliability values ranging from 0.81 to 0.89 and average variance extracted values meeting recommended thresholds. Model fit statistics confirmed an adequate representation of the data ($\chi^2/df = 1.779$, CFI = 0.935, TLI = 0.928, RMSEA = 0.055). Food Label Awareness exerted a strong positive influence on Consumer Trust ($\beta = 0.711$, $p < 0.001$) and a significant direct influence on Willingness to Pay ($\beta = 0.273$, $p = 0.016$). Consumer Trust positively affected Willingness to Pay ($\beta = 0.310$, $p = 0.005$). Food Label Awareness accounted for 50.5% of the variance in Consumer Trust, while Food Label Awareness and Consumer Trust jointly explained 29.1% of the variance in Willingness to Pay. Consumer Trust partially mediated the relationship between Food Label Awareness and Willingness to Pay, generating an indirect effect of 0.220 and a total effect of 0.493. Greater awareness and understanding of nutritional, brand, packaging, and ingredient information strengthened consumer confidence in emerging packaged food brands and enhanced acceptance of premium pricing. Transparent and comprehensible labeling therefore functions not only as a regulatory requirement but also as a market-based mechanism for trust formation and value enhancement within the packaged food sector.

KEYWORDS: Food label awareness; consumer trust; willingness to pay; packaged food brands; food labeling; consumer behavior; structural equation modeling; emerging brands; India.

1. INTRODUCTION

India's packaged food industry has entered a phase of structural expansion, driven by urbanisation, rising middle-class disposable incomes, and a post-pandemic acceleration toward branded, hygiene-assured consumption [1]. The Food Safety and Standards Authority of India (FSSAI) estimates the sector at INR 3.7 lakh crore in 2022–23, growing at over 10 per cent annually, with Tier-2 cities contributing disproportionately to this expansion as organised retail penetrates non-metropolitan markets [2]. Within this landscape, emerging packaged food brands defined here as domestically founded FMCG companies with less than ten years of market presence face a distinctive challenge: communicating product quality credibly to price-sensitive consumers who lack the historical brand experience that incumbent brands possess.

The FSSAI's Food Safety and Standards (Labelling and Display) Regulations, 2020 have significantly elevated mandatory disclosure requirements on packaged food products, mandating nutritional content, allergen information, country of origin, and ingredient transparency. For emerging brands, compliance with and strategic deployment of these labelling standards represents both a regulatory obligation and a competitive differentiation opportunity. However, whether consumer awareness of such labels translates into the trust and premium price acceptance necessary to sustain emerging brand viability is an empirically unresolved question in the Indian food marketing literature.

A 2021 survey by the Confederation of Indian Industry found that fewer than 38 per cent of urban Indian consumers consistently engaged with nutritional labels before purchase, and label comprehension remained limited even among educated urban segments [3]. This engagement deficit is particularly consequential for

emerging brands, which depend on packaging-based communication as the primary quality signal in the absence of advertising heritage. The mechanism through which label awareness conditions trust and trust, in turn, conditions WTP has not been formally tested using structural equation modelling in this context.

Methodologically, the existing Indian food labelling literature relies predominantly on correlation analysis and hierarchical regression without accounting for measurement error in latent constructs [4, 5]. Covariance-based SEM (CB-SEM) overcomes these limitations by simultaneously estimating measurement and structural parameters under confirmatory factor analytic constraints, enabling valid mediation inference [6, 7].

This study addresses three objectives: (1) to examine whether food label awareness positively influences consumer trust toward emerging packaged food brands; (2) to examine whether consumer trust positively influences WTP; and (3) to test whether consumer trust mediates the food label awareness–WTP relationship in Coimbatore, India. The study is grounded in the Theory of Planned Behaviour [8] and Signalling Theory [9] and contributes an empirically validated, mechanism-based model to the food labelling literature.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Food Label Awareness

Food label awareness encompasses consumers' capacity to recognise, comprehend, and engage with label-based product information, extending beyond passive exposure to include functional understanding of nutritional claims, certification marks, and ingredient compositions [10]. In Indian consumer research, label awareness has been examined predominantly in the context of organic and health-oriented foods. Vemula et al. [4] documented that while urban Indian supermarket shoppers demonstrate high baseline label recognition, their actual decision-reliance is lower, often limiting their attention to manufacturing and expiry dates rather than nutritional panels, a recognition-usage gap partially attributable to label complexity.

Post-2018 research has complicated the awareness–behaviour linkage. Talati et al. [11] demonstrated that front-of-pack (FOP) label format moderates the awareness-to-attitude pathway: interpretive summary indicators produce more attitudinally positive responses than nutrition-only declarations. For emerging brands, this distinction is significant because label format decisions are controllable strategic variables, whereas brand heritage is not. Additionally, Mazzù et al. [12] found that consumers' subjective understanding of front-of-pack labels shaped product evaluation, a pathway congruent with Signalling Theory and indicative of trust as an intermediate variable in the awareness–outcome chain. The Indian food labelling literature has not yet formally tested this mechanism.

2.2 Consumer Trust

Consumer trust in the food context is multidimensional, encompassing trust in the manufacturer, the regulatory system, and label-specific claims [13]. In emerging markets, institutional trust in food regulatory bodies tends to be lower than in developed economies, amplifying the signal-value of product-level label disclosures [14]. Tonkin et al. [26], in a systematic review of trust and labelling, demonstrated that perceived label authenticity and manufacturer credibility were stronger trust predictors than advertising frequency, underscoring packaging-based communication as the dominant trust-formation mechanism for domestic brands.

For emerging brands specifically, trust plays a heightened structural role: without accumulated brand experience, consumers rely primarily on packaging-based signals for quality assessment, a dynamic which Tonkin et al. [26] demonstrated through their analysis of how consumer trust develops through engagement with packaging information among food label users. Mazzù et al. [12] confirmed that consumers' subjective understanding of label format mediates between label content exposure and product evaluation, a mechanism consistent with Signalling Theory's prediction that signal economic value is conditional on receiver-side credibility assessment. The critical gap in the Indian literature is the absence of empirical models that treat trust as an endogenous, causally intermediate construct between label awareness and WTP, rather than as a static antecedent or correlate.

2.3 Willingness to Pay

Willingness to pay (WTP) a price premium for labelled food products reflects the consumer's subjective valuation of quality signals over the category baseline price [15]. WTP for labelled food attributes has been examined in Indian contexts primarily for organic produce. Basha et al. [5], in a study of consumers in South India including Coimbatore, found significant WTP premiums for organically certified products, attributing them to health consciousness and trust in certification authorities. This finding implicates trust as a precondition for premium payment rather than a peripheral attitudinal variable. For packaged food categories, WTP is additionally shaped by brand equity: established brands command baseline WTP premiums that emerging brands must overcome through other quality signals notably, transparent and informative labels. Verhoef et al. [16] noted that digital-age consumers increasingly scrutinise label claims on unfamiliar brands, suggesting that label awareness and trust formation are more economically consequential for emerging than established players. Despite this theoretical implication, no Indian study has modelled WTP as a latent endogenous outcome in a trust-mediated label awareness framework, leaving the structural pathway empirically underspecified.

2.4 Theoretical Framework

The study integrates two complementary theoretical perspectives. Ajzen's [8] Theory of Planned Behaviour posits that attitude shaped by cognitive beliefs about a product drives behavioural intention. Food label awareness shapes attitudinal orientation toward product quality; consumer trust operationalises the attitudinal valence of label-based information; and WTP reflects the economic behavioural intention that arises from positive, trust-reinforced

attitudes. Spence's [9] Signalling Theory provides the market-structural rationale: in markets characterised by information asymmetry between emerging brand producers and consumers, labels function as quality signals whose economic value is conditional on perceived signal credibility. Awareness enables signal decoding; trust determines signal valuation; WTP reflects the economic outcome of credible signal reception. Together, these frameworks provide a theoretically coherent, dual-mechanism account of the awareness → trust → WTP pathway.

2.5 Hypotheses

The following hypotheses are derived from the theoretical framework and literature review:

H1: Food label awareness has a significant positive effect on consumer trust toward emerging packaged food brands among consumers in Coimbatore.

Rooted in Signalling Theory, consumers with greater label awareness are better equipped to assess signal quality and authenticity, yielding higher perceived credibility and trust. Empirical support is provided by Mazzù et al. [12] and Tonkin et al. [26].

H2: Consumer trust has a significant positive effect on willingness to pay a price premium for emerging packaged food brands.

Trust reduces perceived purchase risk, increasing the perceived value surplus that justifies premium payment. Larceneux et al. [17] provide proximal empirical support in food purchasing contexts.

H3: Food label awareness has a significant positive direct effect on willingness to pay a price premium for emerging packaged food brands.

H3 specifies a direct awareness–WTP path, enabling the model to distinguish between direct effects and trust-mediated indirect effects, extending the multi-path behavioral approach utilized by Yadav and Pathak [18] in the Indian consumer context.

H4 (Mediation): Consumer trust mediates the positive relationship between food label awareness and willingness to pay, such that the bootstrapped indirect effect is positive and significant.

H4 integrates both theoretical frameworks: label awareness enables signal decoding (Signalling Theory); trust determines signal valuation; WTP reflects economic behavioural intention (TPB). Bootstrapped confidence intervals will be used following Preacher and Hayes [19].

3. Conceptual Framework

Figure 1 presents the structural model. Food Label Awareness (FLA) is the exogenous latent construct. Consumer Trust (CT) is the endogenous mediator. Willingness to Pay (WTP) is the primary outcome construct. H1, H2, and H3 represent direct structural paths; H4 represents the indirect path from FLA to WTP through CT. The model is fully identified, with each latent variable measured by a minimum of three reflective indicators.

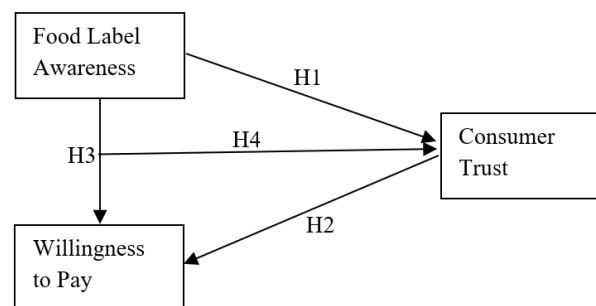


Figure 1 Conceptual framework

4. METHODOLOGY

4.1 Research Design

A quantitative, cross-sectional survey design was adopted, consistent with the positivist epistemological tradition and the dominant approach in CB-SEM-based food consumer research [4, 5]. A structured, pre-tested questionnaire was the primary data collection instrument. The cross-sectional design is appropriate for simultaneously testing structural relationships among attitudinal constructs [20].

4.2 Study Area: Coimbatore

Coimbatore, Tamil Nadu, was selected as the study area for contextual and pragmatic reasons. As an industrial Tier-2 city with a population exceeding 1.6 million [21] and a rapidly growing organised retail sector comprising national hypermarkets and regional supermarket chains, Coimbatore typifies the emerging urban food market that

has driven India's packaged food growth [1]. Its consumer base exhibits documented price sensitivity and moderate-to-high label engagement relative to the national average [22], rendering it a theoretically informative setting for WTP research. The city's geographic concentration of modern retail outlets in identifiable commercial zones (RS Puram, Gandhipuram, Peelamedu, Saibaba Colony) facilitated structured snowball sampling.

4.3 Sampling Procedure and Sample Size

Snowball sampling was employed because buyers of emerging packaged food brands cannot be enumerated from a pre-existing sampling frame [23]. Initial respondents were intercepted at modern retail outlets in four commercial zones of Coimbatore; subsequent referrals extended the sample network through personal contacts and digital channels. Respondents were screened to include only adults (18 years and above) who had purchased at least one emerging packaged food brand in the 30 days preceding data collection.

Following Wolf et al. [24], who recommend a minimum sample size of 200 observations for Structural Equation Modeling (SEM) involving 10–15 manifest indicators, a conservative target sample of $N = 300$ was established to robustly accommodate the model's 25 measurement items distributed across three constructs. This sample size comfortably exceeds the traditional "rule of ten" popularized by Hair et al. [7], which requires ten observations per indicator or per the most complex path in the structural model. Out of the 345 questionnaires originally distributed, 300 usable responses were retained for final analysis after a rigorous data-cleaning process that excluded incomplete protocols and straight-lining patterns, yielding a final usable response rate of 87.0 per cent.

4.4 Measurement Scale

All constructs were operationalised using reflective multi-item Likert scales (1 = Strongly Disagree to 5 = Strongly Agree). Food Label Awareness (FLA) was measured using eighteen items adapted from Açıkgöz, Köktürk and Yardımcı [25], capturing dimensions of nutrition and health, product brand, and product packaging and ingredients. Consumer Trust (CT) was measured using four items adapted from Tonkin et al. [26], capturing manufacturer credibility, label authenticity, and regulatory compliance trust. Willingness to Pay (WTP) was measured using three items adapted from Velčovská and Del Chiappa [27], incorporating price premium acceptance scenarios calibrated to Coimbatore's packaged food market price ranges. The measurement items used for each construct are presented in Appendix A.

A pilot study ($n = 42$) was conducted to assess item clarity, with corrected item-total correlations used to refine the instrument. All pilot items exceeded the 0.30 threshold, confirming adequate item discrimination.

4.5 Data Collection Procedure

Data were collected over eight weeks using both face-to-face questionnaire administration at retail intercept points and a digital Google Forms link distributed via respondents' personal networks (WhatsApp, email). Mode-invariance testing (independent samples t-test on construct mean scores) revealed no significant differences across paper and digital administration modes ($p > .05$ for all constructs), supporting data pooling.

4.6 CB-SEM Justification

CB-SEM was selected over PLS-SEM because all three constructs are theoretically specified as reflective latent variables—indicators are caused by the underlying construct rendering CB-SEM the methodologically appropriate estimator for confirmatory theory-testing [7]. The two-step procedure of Anderson and Gerbing [6] was followed: CFA was conducted to validate the measurement model before structural path estimation. Model fit was evaluated against standard indices: CFI (> 0.95), TLI (> 0.90), RMSEA (< 0.06) and χ^2/df (< 3.0) [28]. Mediation was tested via bootstrapped indirect effects (5,000 resamples; 95% bias-corrected confidence intervals) in AMOS [19].

4.7 Data Analysis

Data analysis followed Anderson and Gerbing's [6] two-step procedure. In Step 1, CFA was conducted to assess the validity and reliability of the measurement model. In Step 2, the structural model was estimated and hypotheses tested. All analyses were performed in IBM AMOS 26.

5. RESULTS AND DISCUSSION

5.1 Socio-economic profile of respondents

Table 1. Socio-economic profile of respondents ($n = 300$)

Variable	Category	Frequency ($n=300$)	Percentage (%)
Gender	Female	182	60.7
	Male	118	39.3
Age (years)	21–30	175	58.4
	31–40	75	25.0
	41–50	46	15.4
	Above 50	4	1.3
Education	Undergraduate	175	58.3
	Postgraduate	84	28.0
	Diploma/Vocational Course	28	9.3

Variable	Category	Frequency (n=300)	Percentage (%)
Occupation	Doctorate	13	4.3
	Private Employee	131	43.7
	Business	53	17.7
	Unemployed (Students)	51	17.0
	Homemakers	39	13.0
	Government Employee	26	8.7
Monthly Family Income (₹)	30,000–40,000	106	35.3
	40,000–50,000	45	15.0
	50,000–60,000	99	33.0
	60,000–1,00,000	43	14.3
	Above 1,00,000	7	2.3

A total of 300 respondents participated in the study. The socio-economic characteristics are presented in Table 1. The results shows that female respondents constituted the majority of the sample (60.7%), while male respondents accounted for 39.3%. Previous studies on nutrition label use have reported that demographic characteristics, particularly gender, are associated with differences in the use and understanding of food label information. Grunert et al. [29] observed that demographic variables influence both the use and comprehension of nutrition information on food labels, suggesting that consumer responses to food labeling may vary across population groups. Consistent with this, Mediratta and Mathur [30] demonstrated that gender acts as a powerful differentiator in urban Indian settings, with female shoppers exhibiting a significantly higher propensity to read, comprehend, and actively look for specific nutritional and health claims on packaged items during their grocery routines compared to male shoppers. A recent scoping review of Indian food-labelling studies by Pahlani et al. [22] similarly confirmed that gender is the most consistent determinant of label use in the Indian context, with women showing greater engagement across multiple label components.

The age profile of the respondents revealed that 58.4% belonged to the 21–30 years age group, followed by 31–40 years (25.0%), 41–50 years (15.4%), and above 50 years (1.3%). The predominance of younger consumers indicates that packaged food products are widely consumed among economically active age groups. Previous research has shown that consumer engagement with nutrition information is influenced by demographic factors such as age and lifestyle characteristics, which affect both awareness and utilization of food label information. Loureiro et al. [31] and Drichoutis et al. [32] reported that middle-aged or younger adults were more likely to use nutritional information on packaging than older individuals. In the Indian context, Pahlani et al. [22] noted that rising packaged food consumption, particularly among younger urban consumers, has made enhancing food label literacy a critical public health priority, given its links to non-communicable disease prevention.

With regard to educational attainment, undergraduate degree holders represented the largest proportion of respondents (58.3%), followed by postgraduates (28.0%), diploma or vocational qualification holders (9.3%), and doctorate holders (4.3%). The relatively high educational profile of the sample suggests a greater likelihood of understanding and interpreting food label information. Grunert et al. [29] reported that nutrition knowledge is positively associated with consumers' understanding of nutrition information presented on food labels, highlighting the importance of educational background in facilitating effective label use. This is further corroborated by Vemula et al. [4] in their large-scale evaluation of urban Indian supermarket shoppers, which identified a robust, statistically significant association between formal educational attainment and the conscious habit of reading food labels. Higher educational backgrounds directly equip consumers with the cognitive capability needed to accurately interpret technical ingredient declarations and nutritional facts panels. Pahlani et al. [22] also affirmed that general and health-specific literacy is a primary determinant of consumers' ability to comprehend label content in the Indian context.

Regarding occupation, private-sector employees formed the largest respondent group (43.7%), followed by business owners (17.7%), students and unemployed respondents (17.0%), homemakers (13.0%), and government employees (8.7%). The predominance of working individuals may reflect the growing dependence on packaged food products among consumers with busy lifestyles. Previous evidence suggests that food labels are frequently used as a source of information during purchase decisions, particularly when consumers seek convenient means of evaluating product quality and nutritional characteristics. Vemula et al. [4], in a large-scale study of urban supermarket shoppers in New Delhi and Hyderabad (n = 1,832), found that nearly 90% of consumers reported reading food labels, underscoring that label engagement is common among working urban populations in India. Similarly, Kumar and Kapoor [33] noted that India's rapidly growing middle class, increasing urbanization, and rising female workforce participation have contributed to a significant shift in dietary patterns toward packaged and processed food consumption.

The monthly family income distribution showed that 35.3% of respondents belonged to households earning between ₹30,000 and ₹40,000, while 33.0% reported monthly incomes between ₹50,000 and ₹60,000. Respondents earning ₹40,000–₹50,000 and ₹60,000–₹1,00,000 accounted for 15.0% and 14.3%, respectively,

whereas only 2.3% reported incomes above ₹1,00,000 per month. The dominance of middle-income households is particularly relevant for packaged food studies because consumers within this income segment often evaluate products based on a combination of price, quality, and nutritional value. Nutrition labels provide information that assists consumers in making such value-based purchase decisions. Consistent with this, a recent analysis of urban India's consumption patterns found that spending on processed food by middle-income consumers surged more than threefold over the past decade, with the share of processed food in their total food budget rising from approximately 16% to nearly 25%, reflecting a structural shift in food preferences [34]. From a strategic marketing perspective, this macroeconomic shift underscores that nutrition labeling is no longer merely an optional wellness indicator but a baseline tool for guiding informed purchase decisions among middle-income urban consumers.

5.2 Consumer Purchasing Behaviour Towards Packaged Food Products (N = 300)

Table 2. Consumer Purchasing Behaviour Towards Packaged Food Products (N = 300)

Variable	Category	Frequently n (%)	Rarely n (%)	Never n (%)
Overall Purchase Frequency	Packaged Food Products	234 (78.0)	62 (20.7)	4 (1.3)
Product Category	Dairy Products	258 (86.0)	32 (10.7)	10 (3.3)
	Biscuits/Cookies	249 (83.0)	47 (15.7)	4 (1.3)
	Snacks (chips, namkeen, etc.)	226 (75.3)	62 (20.7)	12 (4.0)
	Beverages	180 (60.0)	93 (31.0)	27 (9.0)
	Ready-to-eat/Ready-to-cook Foods	159 (53.0)	83 (27.7)	58 (19.3)
	Breakfast Cereals	137 (45.7)	116 (38.7)	47 (15.7)

The results shows that packaged food products formed an important component of respondents' consumption patterns. Approximately 78.0% of respondents reported purchasing packaged food products frequently, while 20.7% purchased them rarely and only 1.3% reported never purchasing them. Among the various product categories, dairy products (86.0%) and biscuits/cookies (83.0%) were the most frequently purchased items, followed by snacks (75.3%) and beverages (60.0%). Ready-to-eat or ready-to-cook products (53.0%) and breakfast cereals (45.7%) exhibited comparatively lower purchase frequencies. The frequent purchase of packaged food products strengthens the suitability of the sample for examining food label awareness and related behavioral outcomes. These purchase patterns are consistent with data from urban India, where per capita sales of packaged and processed foods nearly doubled from USD 31.3 in 2012 to USD 57.7 in 2018 [35], with salty snacks, dairy products, and sweet biscuits emerging as the dominant categories of increased consumption. Mhurchu et al. [36] further reported a significant association between food label use by consumers and the purchase of healthier packaged products, underscoring the practical relevance of label engagement in guiding purchase behavior.

5.3 Food Label Reading Behaviour Before Purchasing Packaged Food Products

Table 3. Food Label Reading Behaviour Before Purchasing Packaged Food Products (N = 300)

Response	Frequency	Percentage (%)
Always	110	36.7
Sometimes	90	30.0
Often	69	23.0
Rarely	27	9.0
Never	4	1.3
Total	300	100.0

The results revealed the substantial engagement with food label information during purchase decisions. More than one-third of respondents (36.7%) reported always reading food labels before purchasing packaged food products, while 30.0% indicated that they sometimes read labels and 23.0% reported doing so often. Only 9.0% rarely read food labels, and 1.3% reported never reading them. These findings are consistent with evidence from systematic reviews indicating that food labels are widely recognized as an important source of nutrition information and are regularly consulted by consumers during food selection decisions. In the Indian context, Vemula et al. [4] reported that while nearly 90% of urban supermarket shoppers in New Delhi and Hyderabad read food labels, the majority limited their attention to manufacturing or expiry dates, and only about 51% reviewed the Nutrition Facts panel. The present study's finding that 36.7% always read labels before purchase, and that 89.7% engage with labels at some level, suggests a comparatively higher degree of label engagement, which may reflect the relatively higher educational profile and health awareness of the sampled urban consumers. This is broadly consistent with the observation by Mediratta and Mathur [30] that 79% of higher-income urban Indian adults reported reading food

labels, and with the findings of other consumer studies in southern India, which highlight that education and household disposable income serve as primary structural drivers of active label reading behavior [4].

5.4 Awareness Status of the respondents

Table 4. Awareness of the respondents towards emerging packaged food brands

Variable	Category	Frequency (n=300)	Percentage (%)
Awareness of Emerging Packaged Food Brands	Yes	257	85.7
	No	43	14.3

Consumer awareness regarding emerging packaged food brands was found to be high. Among the 300 respondents surveyed, 257 respondents (85.7%) indicated that they were aware of emerging packaged food brands, while only 14.3% reported otherwise. This finding reflects the increasing visibility and market penetration of packaged food products. According to Campos et al. [37], nutrition labels on packaged foods represent one of the most prominent sources of nutrition information available to consumers and are frequently used to guide food selection decisions. Since the objective of the study was to examine Food Label Awareness and its influence on Consumer Trust and Willingness to Pay, only respondents who were aware of emerging packaged food brands (n = 257) were retained for subsequent analyses. Restricting the analysis to aware consumers ensured that respondents possessed sufficient familiarity with packaged food products to meaningfully evaluate label information and related purchase behaviors.

5.5 Measurement Model

The measurement model was evaluated using factor loadings, Cronbach's alpha, composite reliability (CR), average variance extracted (AVE), Fornell-Larcker criterion and heterotrait-monotrait ratio (HTMT). The threshold values recommended by Chin [38], Hair et al. [39], Fornell and Larcker [40], and Henseler et al. [41] were used to assess reliability and validity.

Table 5. Reliability and Convergent Validity of the Measurement Model

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Nutrition and Health Information	FLA1	0.70	0.85	0.86	0.54
	FLA2	0.72			
	FLA3	0.70			
	FLA4	0.75			
	FLA6	0.80			
Product Brand Information	FLA7	0.75	0.88	0.88	0.60
	FLA8	0.77			
	FLA9	0.79			
	FLA10	0.75			
	FLA11	0.79			
Product Packaging and Ingredients Information	FLA5	0.49	0.87	0.89	0.48
	FLA12	0.59			
	FLA13	0.73			
	FLA14	0.76			
	FLA15	0.75			
	FLA16	0.66			
	FLA17	0.73			
	FLA18	0.73			
Consumer Trust	CT1	0.79	0.85	0.85	0.59
	CT2	0.82			
	CT3	0.70			
	CT4	0.76			
Willingness to Pay	WTP1	0.79	0.81	0.81	0.59

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
	WTP2	0.74			
	WTP3	0.77			

The factor loadings for most indicators exceeded the recommended threshold of 0.60 [38], indicating satisfactory indicator reliability. The Nutrition and Health dimension demonstrated loadings ranging from 0.70 to 0.80, while Product Brand indicators ranged from 0.75 to 0.79. Product Packaging and Ingredients indicators generally exhibited acceptable loadings, although FLA12 (0.59) and FLA5 (0.49) were slightly below the recommended threshold. Nevertheless, these items were retained because of their theoretical relevance and the acceptable reliability achieved at the construct level.

Internal consistency reliability was assessed using Cronbach's alpha and Composite Reliability (CR). The Cronbach's alpha values ranged from 0.81 to 0.88, while CR values ranged from 0.81 to 0.89, exceeding the recommended threshold of 0.70 [39]. Among the FLA dimensions, Product Brand Information exhibited the highest reliability ($\alpha = 0.88$; CR = 0.88), followed by Product Packaging and Ingredients ($\alpha = 0.87$; CR = 0.89) and Nutrition and Health Information ($\alpha = 0.85$; CR = 0.86). Similarly, Consumer Trust and Willingness to Pay demonstrated satisfactory reliability, confirming the consistency of the measurement items.

These findings suggest that consumers consistently evaluate food labels through multiple information cues rather than relying on a single attribute. This observation is consistent with previous food-label studies, which reported that consumers simultaneously consider nutritional content, ingredient information, and brand-related cues when making purchase decisions [37, 26]. Likewise, Grunert et al. [29] emphasized that nutrition and health information represents a central component of consumers' label evaluation processes.

Convergent validity was assessed using Average Variance Extracted (AVE). The AVE values for Nutrition and Health Information (0.54), Product Brand Information (0.60), Consumer Trust (0.59), and Willingness to Pay (0.59) exceeded the recommended threshold of 0.50 [40]. Although Product Packaging and Ingredients Information reported an AVE value of 0.48, slightly below the threshold, its Composite Reliability was substantially higher than 0.70 (CR = 0.89), indicating acceptable convergent validity. According to Hair et al. [39], constructs with AVE values marginally below 0.50 may be retained when CR exceeds the recommended level. The result indicates that the indicators adequately capture the underlying dimensions of food label awareness and related behavioral constructs.

The relatively lower AVE for Product Packaging and Ingredients Information may reflect the heterogeneous nature of packaging cues, which often combine ingredient statements, certification logos, product claims, and packaging characteristics. Similar observations have been reported in food-label research, where consumers exhibit varying levels of attention and comprehension across different packaging elements [37, 42].

Table 6. Heterotrait–Monotrait Ratio (HTMT) Matrix for Discriminant Validity

Constructs	Product Packaging and Ingredients Information	Nutrition and Health Information	Product Brand Information	Consumer Trust	Willingness to Pay
Product Packaging and Ingredients Information	–	0.777	0.690	0.630	0.404
Nutrition and Health Information		–	0.690	0.610	0.410
Product Brand Information			–	0.560	0.410
Consumer Trust				–	0.510
Willingness to Pay					–

Discriminant validity was examined using both the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT). The square root of AVE values ranged from 0.693 to 0.772 and generally exceeded the corresponding inter-construct correlations. Furthermore, all HTMT values ranged between 0.404 and 0.777, remaining below the recommended threshold of 0.85 [41]. These results confirm that the constructs are empirically distinct despite being conceptually related.

The strongest relationship was observed between Product Packaging and Ingredients Information and Nutrition and Health Information. This finding is expected because consumers often obtain nutritional knowledge through ingredient declarations and package information simultaneously. Nevertheless, the discriminant validity criteria were satisfied, indicating that the two dimensions capture different aspects of food label awareness. Similar multidimensional relationships have been reported in food-label studies, which highlight that consumers process nutritional, ingredient, and brand information as related but distinct sources of product evaluation [29, 26].

Overall, the measurement model demonstrated satisfactory reliability, convergent validity, and discriminant validity. The results support the conceptualization of Food Label Awareness as a three-dimensional construct comprising Nutrition and Health Information, Product Brand Information, and Product Packaging and Ingredients Information. The established psychometric properties provide a robust foundation for subsequent structural model analysis examining the relationships among Food Label Awareness, Consumer Trust, and Willingness to Pay.

5.6 Structural Model and Hypothesis Testing

Following the establishment of satisfactory reliability and validity of the measurement model, the structural model was assessed to examine the hypothesized relationships among Food Label Awareness (FLA), Consumer Trust (CT), and Willingness to Pay (WTP).

Table 7. Structural Model Fit Indices

Fit Index	Obtained Value	Recommended Value	Reference
χ^2/df	1.779	< 3.00	Hu & Bentler (1999)
CFI	0.935	> 0.90	Hu & Bentler (1999)
TLI	0.928	> 0.90	Hu & Bentler (1999)
RMSEA	0.055	< 0.08	Hu & Bentler (1999)

The model fit indices demonstrated a good fit between the proposed model and the observed data. Specifically, χ^2/df (1.779) was below the recommended threshold of 3.0, while the Comparative Fit Index (CFI = 0.935) and Tucker-Lewis Index (TLI = 0.928) exceeded the recommended value of 0.90. Furthermore, the Root Mean Square Error of Approximation (RMSEA = 0.055) was below the acceptable limit of 0.08, indicating that the structural model adequately represented the relationships among the constructs.

Table 8. Coefficient of Determination (R^2)

Endogenous Variable	R^2 Value
Consumer Trust	0.505
Willingness to Pay	0.291

The explanatory power of the model was evaluated using the coefficient of determination (R^2). The results showed that Food Label Awareness explained 50.5% of the variance in Consumer Trust ($R^2 = 0.505$), indicating moderate explanatory power according to the guidelines proposed by Hair et al. [39]. This finding suggests that awareness and understanding of food label information play a substantial role in shaping consumer trust toward food products. In addition, Food Label Awareness and Consumer Trust jointly explained 29.1% of the variance in Willingness to Pay ($R^2 = 0.291$), indicating weak-to-moderate explanatory power. Although additional factors may influence consumers' willingness to pay, the results demonstrate that food label awareness and trust constitute important determinants of consumers' valuation of food products

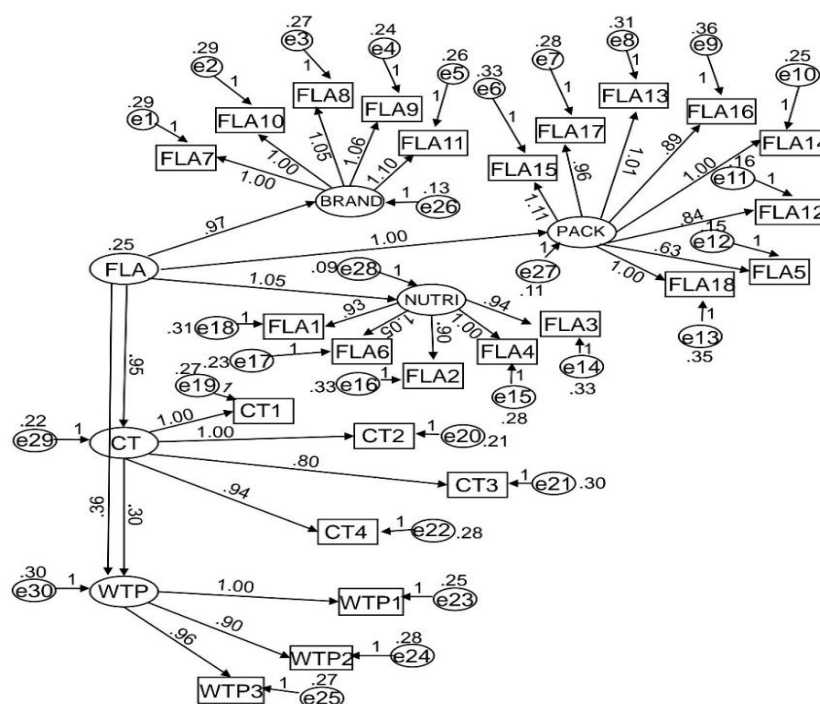


Figure 2. Structural Model with Standardized Path Coefficients

Table 9. Hypothesis Testing Results

Hypothesis	Structural Path	Standardized β	p-value	Result
H1	Food Label Awareness $\rightarrow$ Consumer Trust	0.711	<0.001	Supported
H2	Consumer Trust $\rightarrow$ Willingness to Pay	0.310	0.005	Supported
H3	Food Label Awareness $\rightarrow$ Willingness to Pay	0.273	0.016	Supported

Hypothesis H1 proposed that Food Label Awareness positively influences Consumer Trust. The analysis revealed a strong and statistically significant positive relationship between the two constructs ($\beta = 0.711$, $p < 0.001$), thereby supporting H1. The coefficient magnitude indicates that consumers who actively engage with food label information report higher levels of product trust. Food labels provide information regarding nutritional content, ingredients, quality attributes, and product claims, thereby reducing information asymmetry and uncertainty during purchase decisions. This finding is consistent with the work of Grunert et al. [29], who reported that food labels serve as an important source of information that enhances consumers' confidence in food products and facilitates informed decision-making. Similarly, Campos et al. [37] concluded that consumers who understand and utilize food label information are more likely to perceive food products as reliable and trustworthy. This finding is consistent with Tonkin et al. [26], who observed that consumer trust develops through repeated engagement with packaging information: as consumers interpret label indicators, skepticism toward manufacturers and regulatory claims diminishes, reinforcing product credibility. The present finding supports the view that food labels function as an important communication channel between manufacturers and consumers.

Hypothesis H2 examined the relationship between Consumer Trust and Willingness to Pay. The results indicated a positive and statistically significant effect ($\beta = 0.310$, $p = 0.005$), supporting H2. The finding suggests that consumers who trust food products are more willing to pay premium prices for those products. Trust reduces perceived purchase risk and enhances consumers' confidence in the quality and credibility of product claims. Consequently, consumers may perceive trusted products as offering superior value, which increases their willingness to pay. This result is consistent with previous consumer behavior studies that identify trust as a key determinant of purchase intentions and price acceptance. Specifically, Zhao et al. [43], studying Chinese consumers' preferences for organic rice, found that individuals with high levels of trust exhibited significantly higher willingness to pay than those with lower trust levels, and that the introduction of product information led to a 40% increase in overall WTP, with an even greater 50% increase among high-trust consumers. This finding is consistent with Signalling Theory as applied by Larceneux et al. [17], who found that product labels function as quality signals whose economic value depends on perceived credibility; when consumer trust validates a label's signal, the perceived value surplus of the product increases, raising price premium acceptance. The finding also supports the argument that trust serves as an important mechanism through which product information influences consumer decision-making and purchasing behavior.

Hypothesis H3 proposed a direct positive effect of Food Label Awareness on Willingness to Pay. The analysis confirmed this relationship ($\beta = 0.273$, $p = 0.016$), thereby supporting H3. The result indicates that consumers with greater awareness and understanding of food labels are more likely to pay a premium for food products. Food labels provide valuable information that assists consumers in evaluating nutritional quality, ingredient composition, and product attributes, thereby increasing perceived product value. This finding is in agreement with Miller and Cassady [42], who reported that consumers who actively use nutrition labels are more likely to make favorable food choices and place greater value on food products. Similarly, Tonkin et al. [26] found that consumers frequently rely on nutritional and packaging information when evaluating products and making purchase decisions. This direct pathway is consistent with Signalling Theory: explicit product knowledge reduces the perceived cost of quality evaluation. Miller and Cassady [42] found that consumers who actively engage with label information assign higher utility to labelled products. In emerging markets such as India, where organised retail is displacing unbranded alternatives, label awareness addresses information asymmetry, enabling consumers to form quality judgements and express WTP without relying on established brand heritage. The present study therefore suggests that food label awareness extends beyond information acquisition and directly contributes to consumers' economic valuation of food products.

Table 10. Mediation Analysis Results

Structural Path	Indirect Effect (β)	95% CI (LLCI, ULCI)	Direct Effect (β)	Total Effect (β)	Mediation Type
Food Label Awareness $\rightarrow$ Consumer Trust $\rightarrow$ Willingness to Pay	0.220	[0.138, 0.315]	0.273	0.493	Partial Mediation

The mediation analysis further revealed that Consumer Trust partially mediates the relationship between Food Label Awareness and Willingness to Pay. The indirect effect of Food Label Awareness on Willingness to Pay through Consumer Trust was 0.220. Crucially, the 95% bias-corrected bootstrapped confidence interval [LLCI:

0.138, ULCI: 0.315] did not contain zero, confirming the statistical significance of this indirect pathway. While the direct effect remained significant at 0.273, the resulting total effect of 0.493 demonstrates that Food Label Awareness exerts a substantial overall influence on consumers' willingness to pay. On one hand, consumers who understand food label information directly perceive greater value in food products and are therefore willing to pay more. On the other hand, enhanced food label awareness strengthens consumer trust, which subsequently increases willingness to pay. The mediating role of trust highlights the importance of credibility and confidence in translating food label information into favorable consumer outcomes. This dual-pathway mechanism is corroborated by the findings of Zhao et al. [43], who demonstrated that the joint effects of information provision and consumer trust are more effective than either factor alone in shaping WTP for food products. This dual-pathway mechanism is consistent with established mediation frameworks [19]: partial mediation indicates that while label awareness has an independent effect on WTP, its influence is amplified when mediated by perceived credibility. Trust reduces perceived transaction risk, facilitating the conversion of label-based information into willingness to accept premium prices.

Overall, the structural model findings underscore the pivotal role of Food Label Awareness in shaping consumer behavioral responses. The results demonstrate that Food Label Awareness significantly enhances Consumer Trust and directly increases consumers' Willingness to Pay. Furthermore, Consumer Trust acts as an important intermediary mechanism through which Food Label Awareness influences purchasing behavior. Among the examined relationships, the strongest effect was observed between Food Label Awareness and Consumer Trust, emphasizing the importance of transparent, accurate, and comprehensible food labeling practices. These findings provide empirical support for the proposed conceptual framework and suggest that improving consumers' awareness and understanding of food labels can strengthen trust and enhance consumers' willingness to pay for food products. Such insights are particularly valuable for food manufacturers, marketers, and policymakers seeking to promote informed food choices and improve consumer confidence in food markets.

6. CONCLUSION

This study examined the influence of Food Label Awareness on Consumer Trust and Willingness to Pay for emerging packaged food brands among consumers in Coimbatore, India. The findings confirmed that Food Label Awareness is a significant determinant of both Consumer Trust and Willingness to Pay. The structural model demonstrated satisfactory explanatory power, with Food Label Awareness explaining 50.5% of the variance in Consumer Trust, while Food Label Awareness and Consumer Trust jointly explained 29.1% of the variance in Willingness to Pay. The results revealed that Food Label Awareness had a significant positive effect on Consumer Trust ($\beta = 0.711$, $p < 0.001$) and Willingness to Pay ($\beta = 0.273$, $p = 0.016$). Consumer Trust also exerted a significant positive influence on Willingness to Pay ($\beta = 0.310$, $p = 0.005$). Furthermore, Consumer Trust partially mediated the relationship between Food Label Awareness and Willingness to Pay, indicating that consumers who understand and utilize food label information are more likely to develop trust in emerging packaged food brands, which subsequently increases their willingness to pay a premium for such products. The findings highlight the strategic importance of transparent and informative labeling for emerging packaged food brands. Enhanced consumer awareness of nutritional content, ingredient declarations, packaging details, and brand information strengthens trust and improves product value perceptions. These results offer practical guidance for food manufacturers, marketers, and policymakers seeking to promote informed consumer decision-making and improve market acceptance of emerging packaged food products.

7. LIMITATIONS

First, the study was conducted among consumers in Coimbatore, a rapidly growing urban market with increasing consumption of packaged food products. Although the findings provide valuable evidence from a representative Tier-II Indian city, consumer perceptions and responses to food labels may vary across different geographical and cultural contexts. Therefore, caution should be exercised when extending the findings to other regions without further validation. Second, the study focused exclusively on consumers who were aware of emerging packaged food brands. This approach was necessary to ensure that respondents possessed sufficient familiarity with packaged food products and food label information. However, the perceptions and behavioural responses of consumers with limited awareness remain unexplored. Third, the study employed a cross-sectional design, capturing consumer perceptions at a specific point in time. Consumer awareness, trust, and willingness to pay may evolve in response to changing market trends, regulatory developments, and increased exposure to food labeling information. Consequently, the findings reflect prevailing consumer attitudes during the study period. Finally, the proposed model examined Food Label Awareness, Consumer Trust, and Willingness to Pay as the primary constructs of interest. While the model demonstrated satisfactory explanatory power, other consumer-related factors such as health consciousness, food safety concerns, brand image, and perceived product quality may also contribute to purchasing decisions and warrant further investigation.

8. Future Research Directions

The findings of the present study open several avenues for extending the understanding of consumer responses toward food labeling. Examining the proposed framework across different geographical regions and consumer segments could provide insights into whether the relationships observed in Coimbatore remain consistent under varying cultural, socioeconomic, and market conditions. Greater representation of rural and semi-urban consumers

would also enrich the understanding of food label awareness in the broader Indian context. A deeper exploration of consumer behaviour could be achieved by incorporating factors such as health consciousness, food safety concerns, nutritional knowledge, perceived quality, and brand image into the model. These variables may offer additional explanations for variations in consumer trust and willingness to pay, thereby contributing to a more comprehensive understanding of food purchasing decisions. Given the multidimensional nature of food labels, investigating the influence of individual label components, including nutritional information, ingredient declarations, health claims, certification logos, and front-of-pack labeling systems, could provide more specific insights into the information cues that consumers consider most valuable. Such evidence would be particularly useful for both food manufacturers and policymakers seeking to improve the effectiveness of food labeling practices. The growing diversification of the packaged food sector also presents opportunities to examine the model across specific product categories such as organic foods, functional foods, dairy products, ready-to-eat foods, and other health-oriented products. Additionally, tracking consumer perceptions over time would help capture the influence of evolving regulations, changing dietary preferences, and increasing exposure to food label information on trust formation and willingness to pay. Collectively, these directions would contribute to a more nuanced understanding of how food labeling shapes consumer decision-making in contemporary food markets.

9. REFERENCES

1. Deloitte India. The structural expansion of India's consumer retail and packaged food sector in Tier-2 and Tier-3 markets. Deloitte Touche Tohmatsu India LLP; 2022.
2. Food Safety and Standards Authority of India (FSSAI). Annual market assessment report of the packaged food industry (2022–2023). Ministry of Health and Family Welfare, Government of India; 2023.
3. Confederation of Indian Industry (CII). Engagement deficits in nutritional transparency: An urban consumer survey report. CII Publications; 2021.
4. Vemula SR, Bishi S, Rao P. Socio-demographic determinants of food label reading habits among urban supermarket shoppers in India. *Asia Pac J Clin Nutr*. 2016;25(1):156-167. <https://doi.org/10.1017/S1368980013002231>
5. Basha MB, Mason C, Shamsudin MF, Hussain HI, Salem MA. Consumer awareness and willingness to pay for organic food in South India. *J Int Consum Mark*. 2015;27(2):132-148. [https://doi.org/10.1016/S2212-5671\(15\)01219-8](https://doi.org/10.1016/S2212-5671(15)01219-8)
6. Anderson JC, Gerbing DW. Structural equation modeling in practice: A review and recommended two-step approach. *Psychol Bull*. 1988;103(3):411-423. <https://doi.org/10.1037/0033-2909.103.3.411>
7. Hair JF, Black WC, Babin BJ, Anderson RE. Multivariate data analysis. 8th ed. Cengage Learning; 2019.
8. Ajzen I. The theory of planned behavior. *Organ Behav Hum Decis Process*. 1991;50(2):179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
9. Spence M. Job market signaling. *Q J Econ*. 1973;87(3):355-374.
10. Grunert KG, Wills JM. A review of European research on consumer response to nutrition information on food labels. *J Public Health*. 2007;15(5):385-399. <https://doi.org/10.1007/s10389-007-0101-9>
11. Talati S, Pettigrew S, Kelly B, Ball K, Hughes C, Neal B, et al. The effects of front-of-pack label format on consumer evaluations of unfamiliar food brands. *Food Qual Prefer*. 2019;71:10-18. <https://doi.org/10.1007/s11747-019-00663-9>
12. Mazzù MF, Romani S, Baccelloni A, Gambicorti A. A cross-country experimental study on consumers' subjective understanding and liking on front-of-pack nutrition labels. *Int J Food Sci Nutr*. 2021;72(6):833-847. <https://doi.org/10.1080/09637486.2020.1864918>
13. Lobb AE, Mazzocchi M, Traill WB. Modelling risk perception and trust in food safety information. *Food Qual Prefer*. 2007;18(2):313-323. <https://doi.org/10.1016/j.foodqual.2006.04.004>
14. Pieniak Z, Verbeke W, Scholderer J, Brunsø K, Olsen SO. European consumers' use of and trust in information sources about fish. *Food Qual Prefer*. 2010;21(8):1050-1055. <https://doi.org/10.1016/j.foodqual.2010.03.004>
15. Lusk JL, Shogren JF. Experimental auctions: Methods and applications in economic and marketing research. Cambridge University Press; 2007.
16. Verhoef PC, Broekhuizen T, Bart Y, Bhattacharya A, Dong JQ, Fabian N, et al. Digital transformation: A multidisciplinary reflection and research agenda. *J Bus Res*. 2021;122:889-901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
17. Larceneux F, Benoit-Moreau F, Renaudin V. Why might organic labels fail to influence consumer choices? Marginal labelling and brand equity effects. *J Consum Policy*. 2012;35(1):85-104. <https://doi.org/10.1007/s10603-011-9186-1>
18. Yadav R, Pathak GS. Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *J Clean Prod*. 2016;135:732-739. <https://doi.org/10.1016/j.jclepro.2016.06.120>
19. Preacher KJ, Hayes AF. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behav Res Methods*. 2008;40(3):879-891. <http://dx.doi.org/10.3758/BRM.40.3.879>
20. Sekaran U, Bougie R. Research methods for business: A skill-building approach. 7th ed. John Wiley & Sons; 2016.

21. Technical Group on Population Projections. (2019). *Population projections for India and states 2011-2036*. National Health Mission, Ministry of Health and Family Welfare, Government of India.
22. Pahlani M, Talati KN, Lopez-Arana S, Narayanan P. Food labelling in India: a scoping review of consumer engagement, comprehension, and purchase behaviour. *Glob Health Action*. 2025;18(1):2574132. <https://doi.org/10.1080/16549716.2025.2574132>
23. Etikan I, Alkassim R, Abubakar S. Comparison of snowball sampling and purposive sampling. *Biom Biostat Int J*. 2016;3(5):1-3. <https://doi.org/10.15406/BBIJ.2015.03.00055>
24. Wolf EJ, Harrington KM, Clark SL, Miller MW. Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educ Psychol Meas*. 2013;76(6):913-934. <https://doi.org/10.1177/0013164413495237>
25. Açıkgöz İ, Köktürk SN, Yardımcı H. Adult's food label awareness: Scale development and validation. *Nutr Food Sci*. 2026;56(1):51-64. <https://doi.org/10.1108/nfs-05-2025-0170>
26. Tonkin E, Wilson AM, Coveney J, Webb T, Meyer SB. Trust in and through labelling – a systematic review and critique. *Br Food J*. 2015;117(1):318-338. <https://doi.org/10.1108/BFJ-07-2014-0244>
27. Velčovská Š, Del Chiappa G. The food quality labels: Awareness and willingness to pay in the context of the Czech Republic. *Acta Univ Agric Silv Mendelianae Brun*. 2015;63(2):647-658. <https://doi.org/10.11118/actaun201563020647>
28. Hu LT, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Struct Equ Modeling*. 1999;6(1):1-55. <https://doi.org/10.1080/10705519909540118>
29. Grunert KG, Fernández-Celemín L, Wills JM, Storcksdieck genannt Bonsmann S, Nureeva L. Use and understanding of nutrition information on food labels in six European countries. *J Public Health*. 2010;18(3):261-277. <https://doi.org/10.1007/s10389-009-0307-0>
30. Mediratta S, Mathur P. Understanding of nutrition information on food labels among higher income adults in India. *Health Educ J*. 2023;82(4):461-472. <https://doi.org/10.1177/00178969231172131>
31. Pahlani M, Talati KN, Lopez-Arana S, Narayanan P. Food labelling in India: a scoping review of consumer engagement, comprehension, and purchase behaviour. *Glob Health Action*. 2025;18(1):2574132. <https://doi.org/10.1080/16549716.2025.2574132>
32. Loureiro ML, Gracia A, Nayga RM. Do consumers value nutritional labels? European evidence from a case study. *Agric Econ*. 2006;34(2):211-220. <https://doi.org/10.1093/erae/jbl005>
33. Drichoutis AC, Lazaridis P, Nayga RM. Consumers' use of nutritional labels: a review of research studies and issues. *Acad Mark Sci Rev*. 2006;9:1-22.
34. Kumar, N., & Kapoor, S. (2017). Do labels influence purchase decisions of food products? Study of young consumers of an emerging market. *British Food Journal*, 119(2), 218-229. <https://doi.org/10.1108/BFJ-06-2016-0249>
35. Business Standard. Structural shifts in consumption: Processing the surge in urban food spending. Business Standard. 2024.
36. Law, C., Cornelsen, L., Adams, J., Penney, T. L., Rutter, H., White, M., & Smith, R. (2019). Purchase trends of processed foods and beverages in urban India. *Global Food Security*, 23, 191-204. <https://doi.org/10.1016/j.gfs.2019.05.007>
37. Mhurchu CN, Eyles H, Jiang Y, Blakely T. Do nutrition labels influence healthier food purchases? A systematic review. *Appetite*. 2018;123:16-24. <https://doi.org/10.1016/j.appet.2017.11.105>
38. Campos S, Doxey J, Hammond D. Nutrition labels on pre-packaged foods: A systematic review. *Public Health Nutr*. 2011;14(8):1496-1506. <https://doi.org/10.1017/S1368980010003290>
39. Chin WW. The partial least squares approach to structural equation modeling. *Mod Methods Bus Res*. 1998;295(2):295-336.
40. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least squares structural equation modeling (PLS-SEM). 3rd ed. SAGE Publications; 2021.
41. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *J Mark Res*. 1981;18(1):39-50. <http://dx.doi.org/10.2307/3150980>
42. Henseler J, Ringle CM, Sarstedt M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J Acad Mark Sci*. 2015;43(1):115-135. <https://doi.org/10.1007/s11747-014-0403-8>
43. Miller LMS, Cassady DL. The role of nutrition knowledge in food label use. *Appetite*. 2015;92:207-216. <https://doi.org/10.1016/j.appet.2015.05.029>
44. Zhao X, Zhang M, Siyan S. Information provision, consumer trust, and willingness to pay for certified organic foods: Evidence from experimental auctions in China. *Food Policy*. 2021;102:102110. <https://doi.org/10.3390/ijerph16101713>

Appendix A. Measurement Items Used in the Study

All items were measured using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

A1. Food Label Awareness (FLA)

Adapted from Açıkgöz, Köktürk & Yardımcı (2026)

Code Measurement Item

- FLA1 The label text on a packaged food should be of an appropriate size to be readable.
- FLA2 The label of a packaged food should include health-related recommendations.
- FLA3 The label of a packaged food should include health-related warnings.
- FLA4 The label of a packaged food should provide warnings regarding precautions for individuals with specific health conditions.
- FLA5 Paying attention to the nutritional content on the label of a packaged food is important for my health.
- FLA6 The percentage of daily nutritional requirements met by the nutrients in a packaged food should be indicated on the label.
- FLA7 Branded foods are always of high quality.
- FLA8 Since branded foods are of high quality, I do not need to read the label information.
- FLA9 I trust the statement "Does not contain additives" on a packaged food.
- FLA10 The label information on branded foods is reliable.
- FLA11 The statement "Does not contain additives" on a packaged food influences my purchasing decision.
- FLA12 The type and amount of additives in a packaged food should be included in the label information.
- FLA13 The label information should specify the appropriate amounts of additives in a packaged food that are safe for human health.
- FLA14 I should follow the instructions on the package when consuming a packaged food.
- FLA15 I should follow the instructions on the package when storing a packaged food.
- FLA16 When purchasing a packaged food, I prioritize that its packaging is made of environmentally friendly materials.
- FLA17 The label information should specify whether the packaging of a packaged food is made of environmentally harmful or environmentally friendly materials.
- FLA18 The primary color of the packaging should be chosen in a way that does not hinder readability.

A2. Consumer Trust (CT)

Adapted from Tonkin et al. (2016)

Code Measurement Item

- CT1 I feel confidence in the product.
- CT2 I am confident in the product's ability to perform well.
- CT3 The product is very reliable.
- CT4 I feel like I know what to expect from the product.

A3. Willingness To Pay (WTP)

Adapted from Velčovská & Del Chiappa (2015)

Code Measurement Item

- WTP1 I would be willing to pay a higher price for this product.
- WTP2 I am willing to pay more for this product than for other similar products.
- WTP3 The price of this product would be acceptable to me.