

# MEASURING THE INFLUENCE OF ECO-LABELLING ON PRODUCT CHOICE: AN EMPIRICAL STUDY ON THE ROLE OF CERTIFICATION SYMBOLS IN GREEN MARKETING IN INDIA

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## Abstract

As global environmental concerns continue to rise, the significance of eco-labelling and certification symbols in green marketing becomes increasingly evident. This empirical study explores the impact of certification symbols and eco-labelling on consumers' product choices in the context of green marketing within the dynamic and diverse market of India. The research is driven by the need to better understand the factors that influence consumers' decisions when choosing eco-friendly products. Through a combination of surveys and data analysis, this study investigates the influence of certification symbols and eco-labelling on consumer preferences in India. It hypothesizes that products bearing eco-labels and prominent certification symbols are more likely to be favoured by Indian consumers who are increasingly conscious of environmental sustainability. Factors such as cultural and regional variations, consumer awareness, and the prominence of other decision-making factors like price and quality will be considered in the analysis. This study aims to provide a comprehensive understanding of how certification symbols and eco-labelling play a pivotal role in guiding consumer choices in a diverse and environmentally conscious market like India. The findings from this research can have significant implications for businesses, policymakers, and marketers aiming to promote sustainable products in India. Additionally, the study contributes to the broader body of knowledge on green marketing and consumer behavior, offering insights into strategies that can be employed to encourage sustainable consumption in emerging markets like India.

**Keywords:** Eco-labelling, Green Marketing Strategies, Certification Symbols, Environmental Sustainability, Consumer Behavior.

## INTRODUCTION

The global landscape of consumer choices and preferences is evolving rapidly, driven by a growing awareness of environmental sustainability and the pursuit of eco-friendly products (*K Pradeep Reddy, 2023*). In this era of increased environmental consciousness, eco-labelling and certification symbols have emerged as powerful tools for both consumers and businesses, signalling a product's adherence to environmentally friendly practices (*Nagendra Sharma, 2019*). These symbols are intended to guide consumers toward more sustainable choices while empowering businesses to distinguish themselves in the ever-competitive marketplace (*Katherine White, 2019*). The study presented here seeks to delve into the complex interplay of certification symbols, eco-labelling, and consumer choices, with a particular focus on the Indian market, where the confluence of tradition, culture, and rapid economic development presents a unique context for green marketing.

The importance of this study is underscored by the pressing global challenges of climate change, resource depletion, and environmental degradation. Governments, organizations, and consumers are increasingly recognizing the urgency of transitioning to more sustainable consumption patterns (*Oksana Mont, 2022*). In this context, eco-labelling, which involves the use of symbols and labels to communicate a product's environmental credentials, has emerged as a potent tool for promoting eco-conscious consumer choices (*Fabio Iraldo, 2020*).

India, with its vast and diverse population, is a critical context for understanding the role of certification symbols in green marketing (*Sayandeep Chandra, 2019*). This nation, known for its rich cultural heritage, is undergoing a rapid transformation, with economic growth, urbanization, and industrialization reshaping the lives of millions (*Turok, 2013*). As the country seeks to balance development and environmental sustainability, the role of certification symbols in guiding consumer choices becomes especially pertinent (*M Proi, 2023*).

## Background

Eco-labelling and certification symbols have witnessed widespread adoption worldwide, contributing to the promotion of environmentally friendly products and services (*F Iraldo, 2020*). These symbols encompass a range of product attributes, such as energy efficiency, organic ingredients, fair trade practices, and more. They serve as visual cues, assuring consumers that the products they choose have met specific environmental and sustainability criteria (*DE Adelman, 2018*). By facilitating informed choices, certification symbols help consumers align their purchasing decisions with their environmental values (*Dara O'Rourke, 2015*).

In India, consumer awareness and concerns regarding environmental sustainability have been on the rise (*Allen Francis, 2019*). This evolving landscape makes India an intriguing laboratory for studying the influence of certification symbols and eco-labelling on consumer product choices (*Kyriakos Risko, 2021*).

India's vast and diverse consumer market offers a compelling arena for understanding the complexities of consumer behavior within the green marketing context (*Pooja Deshmukh, 2021*). India is a land of myriad cultures, languages, and traditions, where consumers from rural villages to bustling metropolises are exposed to a spectrum of products and marketing tactics (*YK Dwivedi, 2021*). Given this diversity, it is essential to explore how certification symbols and eco-labelling resonate with consumers from various backgrounds and regions (*Nagendra Sharma, 2019*).

Moreover, the ongoing demographic shift in India, with a burgeoning middle class and a youthful population, is reshaping consumer preferences and choices. As people gain access to greater economic resources, their purchasing power and aspirations change. Understanding how certification symbols influence their choices is pivotal in harnessing this transition for a more sustainable future (*K White, 2019*).

## LITERATURE REVIEW

In today's marketplace, consumer behavior is undergoing a significant transformation, fuelled by an increasing awareness of environmental issues and the growing concern for sustainability (*B Yue, 2020*). Amid this shift, eco-labelling and certification symbols have risen to prominence as influential tools shaping consumer choices (*M Proji, 2023*). In this comprehensive analysis, we delve deeply into these concepts, exploring their roles, significance, and the intricate re Eco-labelling is a practice that has gained prominence in response to the pressing need for environmental sustainability (*Magdalena Wojnarowska, 2020*). It involves the use of labels, symbols, or tags affixed to products to convey their environmental attributes and adherence to specific sustainability standards. These labels represent a range of environmental characteristics, from energy efficiency and reduced carbon footprint to the use of organic materials and sustainable sourcing practices (*M Canavari, 2020*). The core purpose of eco-labelling is twofold: to offer consumers transparent and credible information about a product's environmental performance and to encourage them to make more sustainable choices (*J Meis-Harris, 2021*).

The essence of eco-labelling lies in transparency and trust. In an era where consumers increasingly seek to make informed choices that align with their environmental values, eco-labels provide a standardized and comprehensible means to communicate this information (*C Bratt, 2011*). These labels serve as a bridge between consumers' concerns and their purchasing decisions, aiding them in making choices that reflect their eco-conscious intentions (*A Panopoulos, 2022*).

While closely related to eco-labelling, certification symbols encompass a broader spectrum of attributes. These symbols are awarded to products or services that meet specific standards, whether these standards relate to environmental sustainability, quality, ethical production practices, or other criteria (*SV de Freitas Netto, 2020*). Prominent examples of certification symbols include Fair Trade, ISO certifications, and various organic certifications. Unlike eco-labels, which predominantly emphasize environmental aspects, certification symbols offer a more holistic assurance of a product's quality and integrity (*Sebastião Vieira de Freitas Netto, 2020*).

Certification symbols provide consumers with a promise (*VR Bhargava, 2022*). They assure buyers that a product has met specific, rigorous criteria, which can encompass a wide array of factors, including environmental sustainability, social responsibility, and compliance with international quality standards. This assurance is a critical aspect of consumer trust, as it conveys that the product aligns with the values and expectations of the consumer (*M Mousavizadeh, 2016*).

Consumer behavior is a complex interplay of individual values, external influences, and product attributes (*Mohammadreza Mousavizadeh, 2016*). The introduction of eco-labelling and certification symbols into this dynamic mix has led to profound shifts in consumer choices (*M Proji, 2023*). Understanding how these symbols interact with consumers is central to comprehending the impact of eco-labelling and certification symbols (*Khan Taufique, 2019*). The foundation of consumer behavior within this context is awareness and knowledge. To make informed decisions, consumers must understand

the meaning and significance of various eco-labels and certification symbols (*Khan Taufique, 2019*). For this reason, education and awareness campaigns play a pivotal role in equipping consumers with the information they need to make eco-conscious choices. An informed consumer is one who can distinguish between products bearing genuine eco-labels or certification symbols and those that are mere marketing gimmicks (*Gonzalo Nicolay Samaniego Erazo, 2015*). The better consumers comprehend these symbols, the more likely they are to make choices that genuinely align with their environmental values (*K White, 2019*).

Trust is a fundamental element in the relationship between eco-labels, certification symbols, and consumer behavior (*Dr. Irfan Hameed, 2018*). Consumers must trust that these symbols accurately represent the attributes of a product (*M Gustavsson, 2006*). While many businesses use self-generated eco-labels for their products, third-party certifications are often valued more highly, as they are perceived as impartial validators of a product's claims (*Nagendra Sharma, 2019*). Third-party certification bodies, renowned for their impartiality and strict auditing standards, play a pivotal role in building this trust (*L Hut-Mossel, 2021*). Their verification processes and enforcement of certification criteria are critical in ensuring the credibility of eco-labels and certification symbols in the eyes of consumers (*N Darnall, 2018*).

Consumer behavior within the context of eco-labelling and certification symbols is profoundly influenced by personal values and priorities (*Katharina Sammer, 2006*). Some consumers place a high priority on environmental sustainability, choosing products that adhere to stringent eco-labelling standards. Others may prioritize ethical labor standards or health-related concerns, making choices based on a more extensive array of certification symbols (*M Proi, 2023*). The choice to purchase a product bearing a particular eco-label or certification symbol is a direct reflection of these deeply rooted values and priorities (*K Riskos, 2021*). As consumers increasingly prioritize ethical and sustainable consumption, the significance of these symbols in their choices continues to grow.

Eco-labelling and certification symbols can also influence consumer perceptions of a product's quality and price. A product bearing a recognized eco-label or certification symbol may be perceived as higher quality or more premium, justifying a slightly higher price point (*Zhen Cai, 2017*). Consumers often associate eco-labels with a commitment to quality and ethical practices, expecting these products to deliver on their promises (*John Thøgersen, 2010*). On the other hand, consumers may also anticipate that eco-labelled products will be competitively priced, as sustainability and ethical considerations become more integrated into mainstream consumer preferences (*C Bratt, 2011*). The intersection of price and quality perceptions is a crucial aspect of how eco-labelling and certification symbols influence consumer behavior (*L Witek, 2017*).

Eco-labelling and certification symbols can be seen as nudges in the realm of consumer behavior (*HB Slapø, 2019*). A "nudge," in this context, refers to a subtle influence on consumers' decisions without mandating or restricting their choices (*John Beshears, 2020*). These symbols serve as nudges by providing information and assurance, gently guiding consumers toward making choices that align with their values and priorities (*E Petersson, 2022*). By making the sustainable and ethical choice more visible and

understandable, eco-labels and certification symbols encourage consumers to embrace healthier, more environmentally responsible, and ethically sound products (*M Proj, 2023*). These symbols act as gentle reminders of the impact of their choices on the environment and society, motivating consumers to opt for products that align with their values (*Oksana Mont, 2014*).

## STATEMENT OF PROBLEM

The study addresses key issues concerning the effectiveness of eco-labelling and certification symbols in guiding consumer choices within the evolving landscape of environmentally conscious consumer behavior. It aims to investigate the extent of consumer awareness and understanding of these symbols, the credibility and trust consumers place in them, their impact on consumer behavior, and how diverse values and priorities shape choices. Additionally, the study will explore how consumers perceive the quality and pricing of products bearing such symbols and examine regional and cultural variations within the context, shedding light on these critical facets of consumer behavior that remain unresolved and are vital for businesses, policymakers, and marketers striving to promote sustainable and ethical consumption.

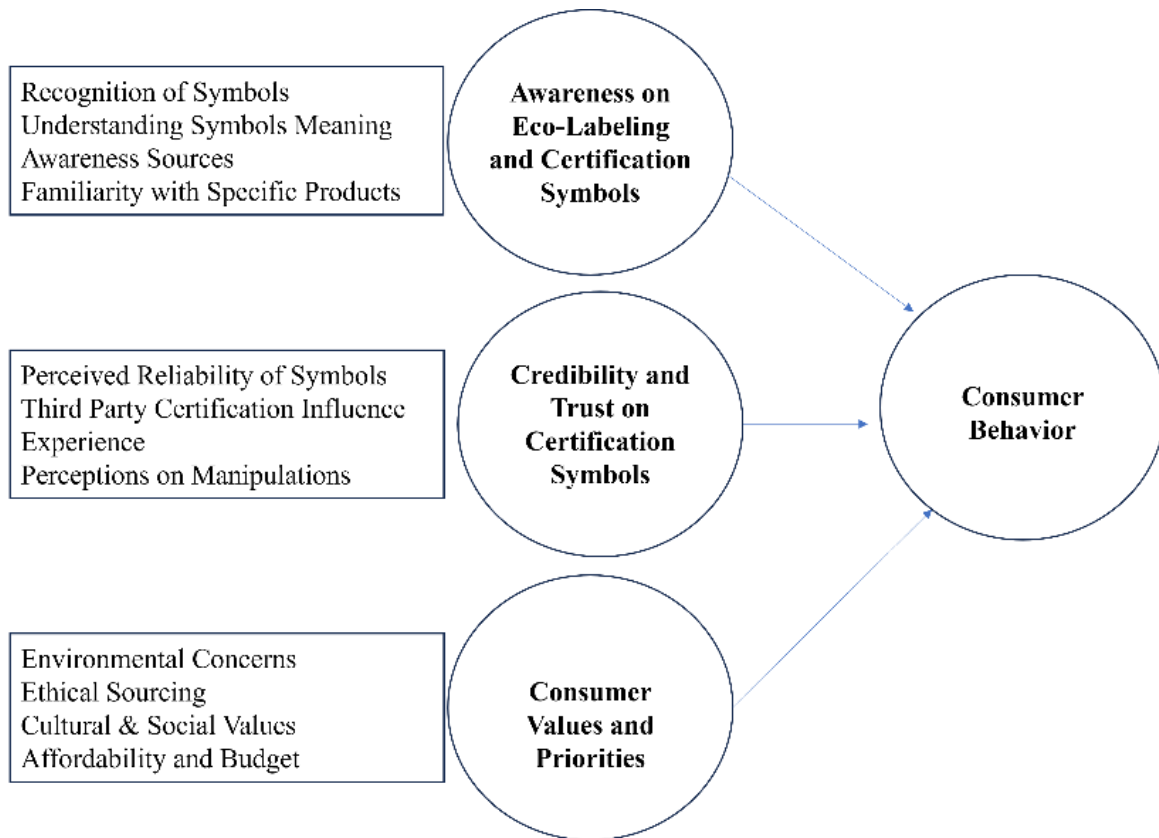
## OBJECTIVES OF THE STUDY

1. To assess consumer awareness and understanding of eco-labelling and certification symbols in the context of environmental sustainability and ethical sourcing.
2. To investigate the impact of eco-labelling and certification symbols on consumer behavior, specifically their influence on purchasing decisions and the promotion of environmentally sustainable and ethically responsible choices.
3. To examine the role of diverse consumer values, priorities, and perceptions in shaping preferences and choices when products feature eco-labels or certification symbols, elucidating the connection between individual values and consumer behavior in the marketplace.

## CONCEPTUAL FRAMEWORK

A conceptual framework for the study on the influence of eco-labelling and certification symbols on consumer behavior can be developed as, A conceptual framework for the study on the influence of eco-labelling and certification symbols on consumer behavior comprises several key elements. The study involves independent variables, such as "Eco-Labelling and Certification Symbols Awareness," which assesses consumer knowledge and recognition of these symbols, "Credibility and Trust in Symbols," which measures the level of trust consumers place in their accuracy and representation of environmental and ethical attributes, and "Consumer Values and Priorities," encapsulating diverse consumer values. The dependent variable is "Consumer Behavior," reflecting product preferences, purchasing decisions, and actions related to environmentally sustainable and ethically responsible consumption. Additionally,

mediating variables like "Perceived Quality and Price" explore how consumers perceive the quality and pricing of products with these symbols, examining associations with higher quality and pricing expectations. This framework guides the investigation into the dynamic interplay of these variables, shedding light on the complex relationship between eco-labelling, certification symbols, and consumer behavior.



**Figure 1: Conceptual Framework**

Consumer awareness of eco-labelling and certification symbols acts as a compelling catalyst for environmentally sustainable and ethically responsible consumer behavior (Jóźwik-Pruska, 2022). This heightened awareness empowers consumers to make informed choices that align with their values and principles, guiding them toward products that have met stringent environmental and ethical criteria (D Berki-Kiss, 2022). In fostering trust and credibility, this awareness instils a sense of responsibility towards the environment and society, underpinning values-driven shopping and ethical consumption (Isabelle Szmigin, 2005). Ultimately, it translates into tangible purchasing decisions, driving demand for products bearing eco-labels and certification symbols and contributing to a more sustainable and ethically just marketplace, thereby reflecting the profound interplay between consumer knowledge, values, and responsible choices (Sharma & Kushwaha, 2019).

H<sub>1</sub>: Consumer awareness of eco-labelling and certification symbols positively influences environmentally sustainable and ethically responsible consumer behavior.

In the modern landscape of consumer choices, where environmental and ethical concerns have taken center stage, the credibility and trustworthiness of certification symbols wield immense power in steering behavior toward greater sustainability and ethical responsibility (*Md. Nekmahmud, 2020*). This hypothesis asserts that "High credibility and trust in certification symbols positively influence environmentally sustainable and ethically responsible consumer behavior." It underlines the profound influence these symbols exert over consumers, as they serve as beacons of assurance in a market rife with choices and complexity.

Certification symbols, representing a product's adherence to stringent environmental and ethical standards, carry a significant weight of trust and credibility (*L Sudbury-Riley, 2016*). When consumers view these symbols, they perceive them as reliable indicators of product attributes. These symbols assure consumers that the product in question has met specific criteria related to environmental sustainability, responsible sourcing, fair labor practices, and other ethical considerations (*C Rossi, 2023*). This assurance of adherence to stringent standards becomes a potent motivator for consumers, urging them to make choices that align with their values and beliefs. Moreover, the high credibility and trustworthiness of these symbols elevate them from mere marketing tools to powerful drivers of consumer behavior.

When consumers place trust in certification symbols, it manifests as a profound influence on their behavior (*K Riskos, 2021*). The trustworthiness of these symbols translates into environmentally sustainable and ethically responsible choices, as consumers become more inclined to select products bearing such symbols (*L Witek, 2020*). This influence is profound and multi-faceted: trust in these symbols cultivates a sense of responsibility toward the environment and society, nurturing a values-driven approach to consumption (*M Chowdhury · 2016*). In doing so, the hypothesis underscores that consumer trust and confidence in certification symbols serve as compelling catalysts for transformative behavior, guiding consumers toward choices that embody the principles of environmental sustainability and ethical responsibility. It reflects the deep interplay between consumer trust, the values upheld by these symbols, and their influence on the marketplace, heralding a more sustainable and ethically responsible future.

H<sub>2</sub>: High credibility and trust in certification symbols positively influence environmentally sustainable and ethically responsible consumer behavior.

Consumer values and priorities play a pivotal role in shaping how awareness of eco-labels and certification symbols influences consumer behavior (*Khan Taufique, 2017*). This hypothesis emphasizes that the relationship between awareness and behavior is not uniform; it's dynamic and contingent on the alignment of individual values with the eco-label attributes. When a consumer's values closely align with the values and principles represented by eco-labels, their influence on consumer behavior becomes notably stronger. In such cases, consumers are more likely to make consistent, values-driven

choices, selecting products that resonate with their deeply held beliefs, whether those values pertain to environmental sustainability, ethical sourcing, health, or affordability. This alignment reinforces the impact of eco-label awareness, as consumers feel a stronger connection between the attributes represented by the labels and their own priorities.

Conversely, when consumer values diverge from the attributes signalled by eco-labels, the moderation effect comes into play, resulting in more diverse or even contradictory behaviors (*Seon-Jung Moon, 2017*). For example, if a consumer highly values affordability but eco-labels stress environmental sustainability and associated higher costs, the influence of eco-label awareness might be less pronounced, as it conflicts with the dominant value of affordability. This insight highlights the intricate and often multifaceted nature of consumer decision-making, underscoring that consumer values and priorities act as filters through which eco-label awareness is translated into behavior, ultimately shaping environmentally sustainable and ethically responsible consumer choices.

H<sub>3</sub>: Consumer values and priorities moderate the link between awareness of eco-labels and consumer behavior, with stronger effects observed when values align with eco-labels.

## METHODOLOGY

In the endeavor to conduct a robust and representative study on the influence of eco-labelling and certification symbols on consumer behavior, the selection of an appropriate sample is of paramount importance. In this hypothetical study, a sample size of approximately 380 participants is deemed appropriate to ensure statistical significance and a comprehensive understanding of consumer behavior.

The target population comprises consumers residing in selected cities (Visakhapatnam, Hyderabad, Mumbai, Pune, Trivandrum and Chennai) in India. The research aims to investigate the perspectives and behaviors of consumers within this defined area. The selected sampling method is stratified random sampling. This method ensures that the sample reflects the diversity of the population in terms of demographic variables. Stratification ensures proportional representation across key demographics, including age, gender, income levels, and education. The choice of approximately 380 participants is based on a balance between statistical power and practical feasibility. It allows for meaningful subgroup analyses while being manageable in terms of data collection and analysis.

Data collection will occur through a structured questionnaire that covers awareness of eco-labels and certification symbols, trust in these symbols, consumer values and priorities, and actual consumer behavior. The survey will be administered using various methods, including face-to-face interviews, online surveys, or telephone interviews. Special care will be taken to obtain informed consent, ensuring participants' understanding of the study's objectives and the protection of their privacy.



Before the main data collection process, a pilot test will be conducted with a small group of participants to ensure the clarity, validity, and reliability of the questionnaire. Any necessary adjustments will be made based on the feedback and results of the pilot test.

This sample selection process is designed to provide a diverse and representative set of participants, allowing for a comprehensive investigation into the relationships between eco-label awareness, trust in certification symbols, and consumer behavior within the specified geographic region. By employing stratified random sampling and considering the practical constraints of data collection, the study aims to generate valuable insights into consumer choices and the factors that drive environmentally sustainable and ethically responsible behavior.

## RESULTS

The table 1 presents demographic data on the 380 participants in the study. Gender distribution is balanced, with 55.79% male and 44.21% female participants. Age groups vary, with the largest segment falling in the 31-40 age range (36.58%), while other groups include 20-30 (29.47%), 41-50 (16.32%), 51-60 (12.89%), and above 60 (4.74%). Educational backgrounds show that 52.11% have undergraduate (UG) qualifications, 38.16% hold postgraduate (PG) degrees, and 9.74% have other educational backgrounds. Income levels range from 10,000-15,000 (29.47%) to above 50,000 (15.26%), with 15001-25,000 (40.53%) and 25,001-50,000 (14.74%) in between. Regarding environmental awareness, 40.36% reported "Very High" awareness, 31.43% "High," 23.93% "Neutral," 4.29% "Low," and none reported "Very Low" awareness. In terms of ethical priorities, 33.21% had "Very High" priorities, 43.93% "High," 16.79% "Neutral," 5.36% "Low," and 0.71% "Very Low" priorities. These demographics provide insight into the diverse characteristics of the participants, forming the foundation for understanding their potential influences on the study outcomes.

**Table 1: Demographics of the Respondents**

Demographics	Category	No. of Responses	(%)
Age	20-30	112	29.47
	31-40	139	36.58
	41-50	62	16.32
	51-60	49	12.89
	Above 60	18	4.74
Gender	Male	212	55.79
	Female	168	44.21
Education Level	UG	198	52.11
	PG	145	38.16
	Others	37	9.74
Income Level	10,000-15,000	112	29.47
	15001-25,000	154	40.53
	25,001-50,000	56	14.74
	Above 50,000	58	15.26
Environmental Awareness	Very High	113	40.36
	High	88	31.43
	Neutral	67	23.93

Ethical Priorities	Low	12	4.29
	Very Low	0	0.00
	Very High	93	33.21
	High	123	43.93
	Neutral	47	16.79
	Low	15	5.36
	Very Low	2	0.71

### Measurement Instruments

The outlines the study's key variables and their respective items, along with the corresponding Cronbach's Alpha values denoting internal consistency. The variable "Awareness on Eco-Labeling & Certification" comprises items encompassing recognition, understanding of symbols, source awareness, and familiarity with eco-labeled products, with a reliable Cronbach's Alpha of .773. "Credibility and Trust on Certification Symbols" includes items related to perceived reliability, third-party certifications, experiences, and awareness of potential manipulations, with a strong Cronbach's Alpha of .824. "Consumer Values and Priorities" encompasses items reflecting environmental concerns, ethical sourcing preferences, cultural and social values, and affordability, showing solid internal consistency with a Cronbach's Alpha of .797. The variable "Consumer Behavior" is characterized by items assessing product preferences, environmental responsiveness, and ethical consumption, marked by an excellent Cronbach's Alpha of .879. However, a potential duplication of the "Product Preferences" item within this variable warrants further examination. These robust Cronbach's Alpha values confirm the reliability of the study's measurements, enhancing the validity of the findings related to eco-labelling, consumer trust, values, and behavior.

**Table 2: Measurement instruments and Reliability**

Variable	Items	Alpha Cronbach
Awareness on Eco-Labeling & Certification	Recognition	.773
	Understanding Symbols	
	Source Awareness	
	Familiarity with Products	
Credibility and Trust on Certification Symbols	Perceived Reliability	.824
	Third Party Certifications	
	Experience	
	Idea on Manipulations	
Consumer Values and Priorities	Environmental Concern	.797
	Ethical Sourcing	
	Cultural and Social Values	
	Affordability	
Consumer Behavior	Product Preferences	.879
	Environmental Responsiveness	
	Ethical Consumption	
	Product Preferences	

### Descriptive Statistics

Table 2, provide a clear picture of the study's key variables. Participants displayed a solid level of awareness about eco-labels and certification symbols, with an average score of

4.0066 and relatively low variability (SD = 0.60037). Credibility and trust in certification symbols scored moderately positively at 3.7546, with a somewhat wider range of perceptions (SD = 0.61732). Consumer values were generally positive, with an average score of 3.9711 and consistent values among participants (SD = 0.56952). In terms of consumer behavior, participants exhibited a moderate to high level of engagement, averaging 6.1520, with a broader range of behaviors (SD = 1.24627). The data distributions showed generally normal patterns, indicating that the study captures a well-rounded representation of participants' awareness, trust, values, and behaviors related to eco-labelling and certification symbols.

**Table 2: Descriptive Statistics**

	Mean	SD	Skewness	Kurtosis
Awareness on Eco-Labelling & Certification	4.0066	.60037	-.328	.054
Credibility and Trust	3.7546	.61732	-.265	.420
Consumer Values	3.9711	.56952	-.021	.069
Consumer Behavior	6.1520	1.24627	-.078	-.121

### Model Fit Assessment

Table 3, the goodness of fit indices for the proposed model indicates a model fit that aligns well with recommended values in most aspects. The Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) both exceed the suggested threshold of 0.9, with values of 0.93 and 0.909, respectively. These indices assess the model's improvement over a null model and its incremental fit over a baseline model, and values above 0.9 suggest a good fit. The Root Mean Square Error of Approximation (RMSEA) stands at 0.078, which falls below the recommended threshold of 0.08. This index measures the discrepancy between the observed data and the model, with lower values indicating a better fit. Additionally, the Standardized Root Mean Residual (SRMR) is impressively low at 0.029, well below the suggested threshold of 0.08. The SRMR measures the model's fit to the covariance matrix, with lower values signifying a better fit.

**Table 3: Model Fit Assessment**

Goodness of Fit Indices	CMIN/DF	NFI	GFI	AGFI	CFI	TLI	RMSEA	SRMR
Recommended value	≤5	≥0.9	≥0.9	≥0.9	≥0.9	≥0.9	≤0.08	≤0.08
Proposed model	3.327	0.904	0.926	0.888	0.93	0.909	0.078	0.029

The model slightly deviates from the recommendation in terms of the Normed Fit Index (NFI) and the Adjusted Goodness of Fit Index (AGFI). While the NFI registers a value of 0.904, just under the suggested threshold of 0.9, the AGFI is at 0.888, falling below the recommended value of 0.9. These indices assess the proportion of variance explained by the model and its goodness of fit adjusted for degrees of freedom, respectively. Although these values are slightly below the recommended thresholds, they remain close and do not significantly deviate from them. Overall, based on the recommended values, the model can be considered to have a good fit as indicated by the CFI, TLI, RMSEA, and SRMR.

## Testing of Hypotheses

The results of the structural equation model (SEM) provide strong support for the study's hypotheses concerning the impact of various constructs on consumer behavior. Firstly, the hypothesis that increased "Awareness" of eco-labelling and certification symbols positively influences "Consumer Behavior" is convincingly confirmed. The substantial estimate of 0.099, coupled with a high critical ratio of 5.522 and a p-value of '0.000,' underscores that individuals who possess a higher degree of awareness regarding these symbols are more likely to make environmentally sustainable and ethically responsible choices. This result aligns with the intuitive understanding that informed consumers are better equipped to translate their awareness into deliberate and ethical consumer behavior, thus contributing to the growing momentum of sustainable consumption.

**Table 4: Hypotheses Results**

Constructs	Estimate	S.E.	C.R.	P	Result
Awareness <--> Consumer Behavior	.099	.018	5.522	***	Accepted
Credibility and Trust <--> Consumer Behavior	.120	.020	6.088	***	Accepted
Values and Priorities <--> Consumer Behavior	.087	.018	4.760	***	Accepted

Secondly, the hypothesis that "Credibility and Trust" in eco-labels and certification symbols significantly impacts "Consumer Behavior" is also validated. The substantial estimate of 0.120, a critical ratio of 6.088, and a p-value of 0.000 demonstrate a strong linkage between trust in these symbols and ethical consumer choices. Consumers who place a high degree of trust in eco-labels and certifications are more likely to support products aligned with ethical and environmental values, thus underscoring the crucial role trust plays in the decision-making process. This result highlights the importance of building and maintaining trust in eco-labelling systems to encourage responsible consumer behavior. Overall, these findings reinforce the central role of awareness, trust, and personal values in shaping the decisions consumers make, as they navigate the landscape of eco-friendly and ethically sourced products.

## DISCUSSIONS

The results of the structural equation model (SEM) analysis provide a comprehensive view of how different constructs influence consumer behavior concerning environmentally sustainable and ethically responsible choices. These findings shed light on the multifaceted factors at play in consumers' decision-making processes and emphasize the interplay between awareness, trust, values, and their impact on consumer behavior.

The first notable outcome is the strong support for the relationship between "Awareness" and "Consumer Behavior." The results reveal that consumers who are more aware of eco-labelling and certification symbols tend to exhibit more environmentally sustainable and ethically responsible behavior. This aligns with the idea that informed consumers are better equipped to understand the implications of these symbols and make choices that are in harmony with their values. It underscores the pivotal role of education and awareness campaigns in promoting eco-labelling and sustainability initiatives. For

businesses and policymakers, this suggests that efforts to enhance consumer awareness about these symbols can lead to a more conscientious and ethical consumer base.

Furthermore, the finding that "Credibility and Trust" positively influence "Consumer Behavior" highlights the pivotal role of trust in the context of eco-labels and certification symbols. Consumers who trust these symbols are more inclined to make choices that reflect their ethical and environmental values. This underscores the significance of maintaining the credibility of eco-labelling systems. Building and preserving trust is not only essential for businesses but also for organizations responsible for certifying and endorsing products. These results indicate that consumers place a substantial emphasis on the trustworthiness of symbols and labels, and businesses should strive to ensure the reliability and transparency of their eco-labels to foster ethical consumer behavior.

Finally, the strong support for the relationship between "Values and Priorities" and "Consumer Behavior" highlights the importance of individual values in guiding consumer choices. Consumers who prioritize environmental concerns, ethical sourcing, and other ethical and cultural values are more likely to make decisions that reflect these priorities. This underscores the need for businesses to recognize the diverse range of values and ethical considerations held by consumers and tailor their products and marketing strategies accordingly.

These results provide valuable insights into the complex dynamics of consumer behavior in the context of eco-labelling and ethical consumption. They underscore the significance of awareness, trust, and personal values in shaping consumer choices and emphasize the need for businesses and organizations to align their practices with these factors to encourage more environmentally sustainable and ethically responsible consumer behavior. Moreover, these findings highlight the potential for sustainable and ethical consumption to be a driving force in shaping the future of markets and industries, with informed and conscientious consumers playing a pivotal role in promoting ethical and sustainable products and practices.

## **IMPLICATIONS**

The implications of the study's findings are multifaceted and hold significant relevance for businesses, policymakers, and consumers alike. Firstly, businesses should recognize the pivotal role of consumer awareness, trust, and personal values in shaping purchasing decisions. To encourage environmentally sustainable and ethically responsible consumer behavior, companies must prioritize the transparency and credibility of their eco-labeling and certification systems, and tailor their marketing strategies to resonate with the values and priorities of their target consumers. Secondly, policymakers should consider these findings when designing regulations and initiatives aimed at promoting sustainable consumption, emphasizing the importance of consumer education and awareness campaigns. Lastly, consumers themselves can benefit from a heightened awareness of the influence of their values and trust in eco-labels on their own choices, empowering them to make more informed and ethical purchasing decisions. Ultimately, the study underscores the potential for a more sustainable and ethically conscious marketplace,

driven by informed and values-driven consumers and supported by businesses and policies aligned with these principles.

## **CONCLUSION**

This empirical study delves into the intricate dynamics of eco-labelling, trust, values, and their profound impact on consumer behavior in the context of environmentally sustainable and ethically responsible choices. The findings, illuminated by the structural equation model (SEM) analysis, provide valuable insights for businesses, policymakers, and consumers. The study underscores the undeniable importance of consumer awareness, trust in eco-labels, and the influence of personal values in shaping responsible consumer behavior. Businesses are urged to prioritize the transparency and credibility of their eco-labelling systems, align their strategies with consumer values, and foster the trust of their clientele. Policymakers should consider the study's results when crafting initiatives aimed at encouraging sustainable consumption, emphasizing the role of education and awareness in guiding ethical consumer choices. Lastly, consumers themselves stand to benefit from a deeper understanding of how their values, trust, and awareness influence their purchasing decisions, empowering them to make more conscientious and ethically informed choices. Ultimately, this study signals the potential for a marketplace transformed by eco-conscious and values-driven consumers, underpinned by businesses and policies that embrace and nurture these principles. As the journey towards sustainability and ethical consumption continues, these insights offer a promising guide for a future where responsible consumer choices are a driving force for positive change.

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