

The influence of eco-certifications and labels on consumer trust and purchase intent in FMCG products

A.T. Loga Rubini^{1*} and K. Hema Malini²

^{1*}Research Scholar, PG & Research Department of Commerce, The Madura College (Autonomous), Madurai, Tamil Nadu

²Assistant Professor, PG & Research Department of Commerce, The Madura College (Autonomous), Madurai, Tamil Nadu

*Corresponding Author Email: logarubini@gmail.com

Abstract

This study investigates the influence of eco-certification and labels on consumer trust and purchase intent in the Fast-Moving Consumer Goods (FMCG) sector, focusing on consumer awareness, perception, and behaviour. Using quantitative methods with 150 respondents from Madurai City, this study employs percentage analysis, chi-square tests, and correlation analysis to examine the relationships between eco-label familiarity, trust, and buying decisions. The results indicate that 66% of consumers are aware of eco-labels and 67.3% actively consider them when purchasing. Statistical analysis revealed a significant association between consumer trust in eco-certified products and purchase intent ($\chi^2=27.766$, $p=0.034$) a strong positive correlation ($r=0.861$, $p<0.001$) between the perceived credibility of eco-labels and purchase intention. These findings underscore the critical role of credible eco-certification in enhancing consumer confidence and driving sustainable purchasing behavior in FMCG markets. This study highlights implications for marketers and policymakers in improving certification transparency and authenticity to foster environmentally responsible consumption.

Keywords: Eco-certification, Ecolabels, GreenWashing, FMCG products, Consumer Trust, Purchase Intention

Introduction

In recent years, the proliferation of eco-certification and labels has fundamentally reshaped consumer behavior in the Fast-Moving Consumer Goods (FMCG) sector. As increasing numbers of consumers become environmentally conscious, the trust and credibility afforded by such certifications have emerged as pivotal factors that influence purchasing decisions. Research indicates that transparency in eco-labeling can significantly enhance

consumer trust, thereby driving preference for green FMCG products over conventional alternatives (Damberg et al., 2024). While companies invest in green marketing strategies, including product innovation and environmentally friendly branding, the effectiveness of these certifications largely depends on consumer perception and the perceived authenticity of eco-claims (Vuong et al., 2024). Moreover, studies have shown that when products are clearly identified and well-marketed as sustainable, they not only achieve consistent sales over time, but also enhance consumer willingness to pay a premium, signifying the powerful impact of eco-certification on consumer purchase intent (Harris, 2007). Thus, understanding the interplay between eco-certification, consumer trust, and purchase intentions is crucial for businesses aiming to thrive in an increasingly competitive market of sustainable FMCG products.

Objectives

- i) To assess the overall level of consumer awareness and preference for eco-certification and eco-labels in FMCG products using a percentage analysis.
- ii) To examine the association between consumer trust in eco-certified FMCG products and purchase intent using the chi-square test.
- iii) To determine the correlation between the perceived credibility of eco-labels and the level of consumer purchase intent toward eco-certified FMCG products.

Review of Literature

1. **Hajduk et al., (2024)** found that, **Eco-certifications** positively influence consumer trust in and loyalty towards **FMCG products** by signalling high perceived quality. Consumers who perceive higher quality owing to eco-labels tend to trust the brand more and are more loyal, which increases their **purchase intention**. Effective communication of quality aspects through packaging and marketing can enhance trust.
2. **Shukla et al., (2022)**, showed that product packaging using **eco-labels** and semiotic elements positively affects consumer brand experience, which leads to increased brand trust and purchase intentions in the FMCG sector. This highlights the importance of clear and meaningful **eco-certifications** of packaging to foster trust and encourage buying decisions.
3. **Vuong et al., (2024)** that, **Green marketing strategies**, including eco-certifications, significantly impact consumers' purchase intentions for **green FMCG products**. Transparent and authentic green branding increases consumer trust and the likelihood

of purchasing eco-friendly products, especially in emerging markets where sustainability is gaining importance.

Hypothesis of the Study

H1: Most consumers are aware of the eco-certification and eco-labels of FMCG products.

H2: There is a significant association between consumers' trust in eco-certified FMCG products and their purchase intentions.

H3: There is a significant positive correlation between the perceived credibility of eco-labels and consumers' intention to purchase eco-certified FMCG products.

Research Gap

Although trust in eco-labels influences green purchase behavior, consumer trust in eco-labels is declining due to issues like uncertified labels and greenwashing. This calls for further research on how supply chain transparency and certification credibility can rebuild and sustain consumer trust in eco-certification (Damberg et al., 2024). There is a limited understanding of how eco-certification labels function differently across various product categories and emerging markets. For example, certification labels may act as moderators rather than direct influencers of consumer trust and purchase intent, and their effects may vary depending on the product type and consumer demographics in emerging economies. While studies have explored the link between perceived quality, packaging semiotics, and brand trust, the specific mechanisms and interaction effects of eco-certification within these variables in diverse cultural or regional FMCG markets remain underexplored. More empirical research is needed to investigate how eco-certification of FMCG packaging influences brand trust and purchase intentions contextualized by cultural and market differences (Hajduk et al., 2024; Shukla et al., 2022). Finally, sustainability certifications' long-term market performance and consumer acceptance beyond the initial purchase are less studied, especially regarding how continuously evolving consumer perceptions and marketing strategies interact with eco-certifications for sustained loyalty in the FMCG sector (Harris, 2007). Therefore, these gaps highlight the need for future research focusing on improving the trustworthiness and transparency of eco-labels, understanding their variable impact across product categories and markets, and conducting longitudinal studies on sustainability certification effects on consumer behavior in FMCG products.

Statement of the problem

The problem addressed in this study is the declining consumer trust in eco-certification and labels on FMCG products due to issues such as uncertified labels and greenwashing, which undermine their effectiveness in influencing purchase intentions. Additionally, there is limited understanding of how eco-certification functions differently across various product categories and emerging markets; as well as how cultural and regional differences affect the relationship between eco-labels, brand trust, and consumer purchase behavior. Furthermore, the long-term impact of sustainability certification on consumer loyalty and market performance remains under-explored. This study seeks to fill these gaps by examining the influence of eco-certification on consumer trust and purchase intent in the FMCG sector, considering factors such as certification credibility, supply chain transparency, and market variability.

Research Methodology

Research Design: Quantitative, descriptive research.

Area of Study: Madurai City, Tamil Nadu.

Sample Size: 150 respondents

Sampling Technique: Convenience sampling

Data Collection Tool: Structured questionnaire with a 5-point Likert scale.

Conceptual Framework

Eco-Certification and Eco-labels -> Consumer Trust -> Purchase Intention
Eco-Certification and Eco-labels -> Purchase Intention

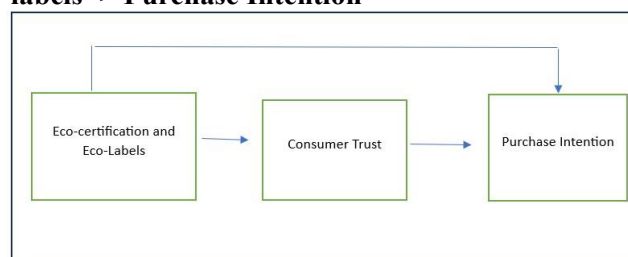


Figure:1 Conceptual Framework

Data Analysis

H1: Most consumers are aware of the eco-certification and eco-labels of FMCG products.

This section examines whether consumers are aware of the eco-certification and eco-labels for FMCG products. A percentage analysis was conducted to determine the awareness of consumers.

Table 1: Percentage analysis to know the awareness of eco-certificates and eco-labels

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	99	66.0	66.0	66.0
No	51	34.0	34.0	100.0
Total	150	100.0	100.0	

Source : Primary Data

Interpretation: The Percentage analysis revealeds that 66% of the respondents were aware of eco-certification and eco-labels, while 34% were unaware. This indicates that the majority of consumers possess a basic awareness of eco-labels in FMCG products.

Table 2 :Percentage analysis to known the consumers look the eco-labels while purchasing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	101	67.3	67.3	67.3
No	49	32.7	32.7	100.0
Total	150	100.0	100.0	

Source : Primary Data

Interpretation: The percentage analysis results show that 67.3% of respondents actively looked for eco-labels during purchase, whereas 32.7% did not. This suggests that eco-labels play a noticeable role in consumer decision-making.

Table 3: Percentage analysis to know the familiarity with common eco-labels on FMCG products

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	7	4.7	4.7	4.7
Disagree	12	8.0	8.0	12.7
Neutral	16	10.7	10.7	23.3
Agree	51	34.0	34.0	57.3
Strongly Agree	64	42.7	42.7	100.0
Total	150	100.0	100.0	

Source : Primary Data

Interpretation: A total of 76.7% of respondents agreed or strongly agreed that they were familiar with eco-labels, while 10.7% were neutral, 8% disagree, and strongly disagree. This indicates a moderate-to-high level of familiarity among consumers.

Table 4: Percentage analysis to know eco-labels helps to identify environmentally responsible products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	8.0	8.0	8.0
	Disagree	14	9.3	9.3	17.3
	Neutral	25	16.7	16.7	34.0
	Agree	40	26.7	26.7	60.7
	Strongly Agree	59	39.3	39.3	100.0
	Total	150	100.0	100.0	

Source : Primary Data

Interpretation: More than 66% of respondents perceived eco-labels as helpful in identifying environmentally responsible products, while only 17.3% disagreed, reflecting a positive perception of eco-labels as informational cues.

Table 5: Percentage analysis to know Eco-certifications influence the product selection

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	13	8.7	8.7	8.7
	disagree	16	10.7	10.7	19.3
	Neutral	24	16.0	16.0	35.3
	agree	46	30.7	30.7	66.0
	Strongly Agree	51	34.0	34.0	100.0
	Total	150	100.0	100.0	

Source: Primary Data

The analysis shows that 64.7% of the respondents agree that eco-certification influences their product selection, while 19.4% disagree. This confirms that eco-labels have a significant impact on FMCG purchase decisions.

H2: There is a significant association between consumers trust in eco-certified FMCG products and their purchase intent.

Table 6: Chi-Square Analysis – Consumer Trust – Purchase Intention

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.766 ^a	16	.034
Likelihood Ratio	28.312	16	.029
Linear-by-Linear Association	.027	1	.869
N of Valid Cases	150		

Source: Primary Data

Interpretation: The Pearson's chi-square test yielded a value of 27.766, with a significance level of 0.034. Because the p-value was less than 0.05, the null hypothesis was rejected. This indicates a statistically significant association between the selected credibility/trust factor and purchase intention toward eco-certified FMCG products.

H3: There is a significant positive correlation between the perceived credibility of eco-labels and consumer purchase intent for eco-certified FMCG products

Table 7: Correlations

		Credible Trustworthy	Purchase
Credible Trustworthy	Pearson Correlation	1	.867**
	Sig. (2-tailed)		.000
	N	150	150
Purchase	Pearson Correlation	.867**	1
	Sig. (2-tailed)	.000	
	N	150	150

** . Correlation is significant at the 0.01 level

Source: Primary Data

Interpretation: The Pearson's correlation coefficient was 0.861, indicating a strong positive relationship between the two variables. The relationship is highly statistically significant, as the p-value is less than 0.001. This suggests that higher levels of one variable are strongly associated with higher levels of an other variable.

Findings

Based on a statistical analysis of 150 consumers in Madurai, the principal findings are as follows:

Findings:1 The percentage analysis was employed to examine consumer awareness and perceptions of eco-certification. Hence, the results indicate that the majority of respondents are aware of eco-labels and consider them influential in their purchase decisions.

Findings: Two consumers' perceptions of eco-labels were significantly related to their intention to purchase eco-certified FMCG products. Chi-square analysis revealed a statistically significant association between perceived credibility of eco-labels and purchase intention ($\chi^2=27.766$, $p=0.034$). Hence, the null hypothesis is rejected.

Findings:3 Correlation analysis revealed a strong positive relationship between variables ($r = 0.861$, $p < 0.001$). Hence, the null hypothesis is rejected. This strong positive relationship indicates that the constructs are closely linked, suggesting that improvements in consumer perceptions of eco-labels are strongly associated with increased purchase intention.

Suggestion

1. Enhancing Transparency and Certification Credibility: Marketers and policymakers should focus on improving the transparency of eco-certification processes and ensuring the authenticity of eco-labels to rebuild and sustain consumer trust. This includes clear communication regarding certification standards and verification procedures to counteract greenwashing concerns.
2. Tailor Eco-Certification Strategies by Market and Product Category: Given the variability in consumer perceptions across different FMCG categories and emerging markets, customized eco-labeling strategies that consider regional cultural factors and product types can increase the effectiveness of influencing purchase intent.
3. Increased Consumer Awareness and Education: Initiatives to raise consumer awareness of the meaning, benefits, and reliability of eco-certifications can strengthen trust and

encourage sustainable purchasing behavior. Educational campaigns and clear labeling can help consumers make informed decisions.

4. Monitoring and addressing long-term consumer engagement: Future efforts should explore mechanisms to maintain consumer loyalty toward eco-certified products beyond initial purchases, ensuring the sustained market performance of sustainable FMCG offerings.

Conclusion

This study confirms that eco-certification and labels play a significant role in shaping consumer trust and purchase intentions in the FMCG sector. Most consumers in Madurai are aware of eco-labels and actively consider them when making purchase decisions. Statistical analyses demonstrated a significant association between consumer trust in eco-certified products and their willingness to buy, with a strong positive correlation between perceived label credibility and purchase intent. These findings highlight the critical importance of credible and transparent eco-certification for fostering environmentally responsible consumption. Addressing challenges such as greenwashing and varying impacts across markets is essential to enhance the effectiveness of eco-labels. Marketers and policymakers can leverage these insights to design targeted strategies to promote sustainable consumption patterns and support the growth of green FMCG products.

References

1. Damberg, S., Saari, U. A., Dlugoborskyte, V., Fritz, M., & Božič, K. (2024). Consumers' purchase behavior of Cradle to Cradle Certified® products—The role of trust and supply chain transparency. *Business Strategy and the Environment*, 33(8), 8280–8299.
2. Dilkes-Hoffman, L. S., Lant, P. A., Grant, T., Laycock, B., Lane, J. L., & Pratt, S. (2018). Environmental impact of biodegradable food packaging when considering food waste. *Journal of Cleaner Production*, 180, 325–334.
3. Hajduk, S., Divya, P., Venkateswaran, P. S., & John Paul, M. T. V. (2024). A Study on The Influence of Perceived Quality on Brand Trust and Loyalty Towards FMCG Products. *FMDB Transactions on Sustainable Technoprise Letters*, 2(1), 42–52.

4. Munerah, S., Koay, K. Y., & Thambiah, S. (2020). *Factors influencing non-green consumers' purchase intention: A partial least squares structural equation modelling (PLS-SEM) approach. Journal of Cleaner Production, 280, 124192.*
5. Schiederig, T., Herstatt, C., & Tietze, F. (2012). *Green innovation in technology and innovation management – an exploratory literature review. R&D Management, 42(2), 180–192.*
6. Shukla, M., Singh, D., & Misra, R. (2022). *Exploring relationship among semiotic product packaging, brand experience dimensions, brand trust and purchase intentions in an Asian emerging market. Asia Pacific Journal of Marketing and Logistics, 35(2), 249–265.*
7. Vuong, T. K., Bui, H. M., & Lam, T. N. (2024). *Sustainable Consumer Behaviour in the Fast-Moving Consumer Goods Sector: Moderating Role of Competitive Intensity in Green Marketing. Business Strategy & Development, 7(4).*