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A STUDY TO EXPLORE THE EFFECT OF BRAND LABEL VS. INFORMATION LABEL IN THE FOOD AND BEVERAGE INDUSTRY TOWARDS GREENWASHING PRACTICES

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ABSTRACT

The study explores the impact of brand labels versus nutritional labels on consumer perceptions in the food and beverage industry addressing the growing concern of greenwashing practices. Brand labels strongly impact consumer choices because of their established associations. However, the influence of labels such as nutritional details in changing consumer perceptions is a less studied area. This research aims to compare the effects of these labels on consumer decisions with a lens of greenwashing.

Using a descriptive survey design, data was collected from 271 consumers in retail settings like malls and supermarkets. Participants were exposed to brand labels followed by nutritional labels to assess shifts in perception and purchase intention. Findings indicate that trust and visual attention in the context of brand labelling significantly impact perception and purchase intention of a product. Trust and awareness factors in the context of nutrition labels significantly influence consumer brand-driven perceptions by revealing a product's true value. This highlights greenwashing practices where brands exploit consumer trust through vague or misleading claims. The study underscores the potential of labelling in promoting transparency and encouraging informed and health-conscious purchasing behaviors. These findings are valuable for brands aiming to build trust and for policymakers to design effective labelling regulations. Future research could explore label impacts across varied retail formats and product categories to enhance consumer education on healthful choices.

Keywords: Brand Label, Informational Label, Consumer Perception, Food and Beverage Industry, Greenwashing, Nutritional Labelling, Health Awareness

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1. INTRODUCTION

1.1 Greenwashing in food and beverage industry

The term "greenwashing" was coined by environmentalist Jay Westerveld in 1986. Greenwashing refers to the practice of misleading consumers by presenting a product or brand as environmentally friendly or health-conscious without substantial evidence. Marquis (2011) defines Greenwashing as the practice of promoting environmentally friendly programs to move the attention from an organization's environmentally unfriendly or less savoury activities. Whereas Baum (2012) stated the act of disseminating disinformation to consumers regarding the environmental practices of a company or the environmental benefits of a product or service. In the food and beverage industry, where health and sustainability are top priorities for many consumers, greenwashing has become a pervasive issue. (Tikkha, Agarwal & Rajwanshi 2024) Companies often capitalize on consumer preferences for organic, eco-friendly, or health-promoting products, sometimes exaggerating or fabricating claims to increase sales. (Bagchi & Nair, 2016) Greenwashing not only harms customer satisfaction but it also harms brand, reputation, and brand loyalty, as well as customers' purchase intentions and repeat purchases. (Harward Review, 2022) Over the past ten years (2012 – 2022), greenwashing incidents increased across various sectors and regions, especially in Europe and the Americas. (RepRisk report 2024) For instance, the global greenwashing-related complaints in this sector have reportedly increased by over 30% in recent years (Forbes, 2022) Understanding this phenomenon is critical to ensuring ethical marketing practices and consumer protection.

Figure 1 of word map shows the common words linked to greenwashing and its impact. Words like "greenwashing", "misleading" and "deceptive" highlight how companies often exaggerate their environmental efforts to trick consumers. Words like "natural," "eco-friendly," "green," and "sustainable" are examples of the promises that companies make to appeal to environmentally conscious consumers, even when those claims are untrue. At the same time, terms like "ethics," "transparency," and "accountability" demonstrate the rising demand for businesses to perform honorably and responsibly. All things considered, it demonstrates how greenwashing may mislead customers and the necessity of more knowledge and more stringent regulations to guarantee businesses actually adhere to sustainable standards.

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Source: researchers construct using worditout.com

Figure 1: Word Map for Labelling and Greenwashing

1.2 Labelling in the Food and Beverage Industry.

In the food and beverage sector, labeling has a significant impact on how consumers perceive products and make decisions. While informational labels offer precise information on nutritional composition, health claims, or certifications, brand labels frequently highlight trust and product quality by drawing on established reputations. (Kuchler, 2017) However, there are now a lot of problems because labeling requirements are not always applied consistently. For example, research indicates that around 45% of customers choose food products largely based on labels, although many may not know the difference between regulated and unregulated claims. (Zafar, 2022) emphasizes how crucial it is to review labeling procedures to make sure they facilitate well-informed decision-making.

Food labeling is defined as a complicated regulation that entails giving customers accurate and thorough information about food goods. It includes a number of components that must adhere to certain standards, such as the product's legal name, ingredient lists, nutritional data, and allergen warnings (Henderikx, 2017). Creating and using product labels to communicate information about a brand and its products is known as brand labeling. This can include the contents, usage directions, brand name, logo, tagline, and other crucial information that enables customers to recognize the

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product and comprehend its function (Keller, K. L., 2020). Information about calories, serving size, and the amounts or daily values of different macronutrients, vitamins, and minerals are all included on food packaging. This is known as nutrition labeling. This labeling is intended to assist customers in making knowledgeable food decisions by outlining the nutritional value of goods at the moment of sale. (Cassady and Miller, 2015)

By influencing how consumers perceive a product's quality, healthfulness, and environmental effect, labels have a big impact on their opinions. For instance, research indicates that, even when the nutritional composition of a product is the same, consumers tend to view it as 25% healthier when it has comprehensive data labeling (Aschemann-Witzel, 2013). But over time, deceptive labels can skew consumer views, resulting in bad purchases and eroded confidence. The significance of transparent labeling practices and the need for research that examines the effects of various labeling strategies on customer behavior are highlighted by this relationship between labeling and perception.

2. REVIEW OF LITERATURE

A comprehensive literature review was conducted for the study, utilizing scholarly databases such as Scopus, Web of Science, and Google Scholar. The review focused on peer-reviewed articles, industry reports, and relevant publications, employing search strings like "brand labels", "information labels", "greenwashing in food and beverage", "consumer perception of labels" and "nutritional transparency". This ensured a robust theoretical foundation for understanding the interplay between labelling practices and consumer decision-making in the context of greenwashing.

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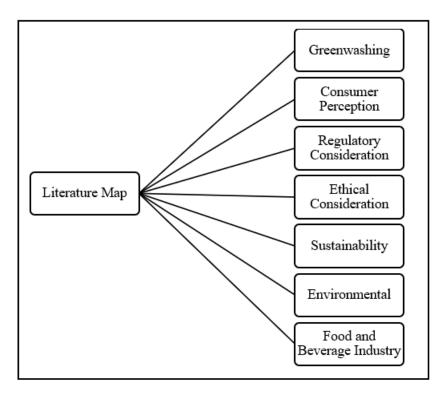


Figure 2: Literature map

2.1 Literature Gap

Following a thorough study of the literature, it was determined that eco-labelling and consumer perception in the food and beverage sector require further investigation, especially in light of greenwashing techniques. According to Delmas and Gergaud (2021), eco-labels have the ability to reduce negative effects on the environment and society by educating consumers. However, their research shows that customers are quite concerned about the apparent trade-off between product quality and eco-label features. This issue emphasizes how crucial nutritional and brand labels are in influencing consumer perceptions and trust. For example, it has been demonstrated that expert assessments of beverage quality are positively impacted by third-party certified eco-labels, such as organic and biodynamic certifications, in contrast to the lower perceived value of self-declared eco-labels that are frequently linked to greenwashing. This observation is especially pertinent to the food and beverage sector, where customer trust and perceptions of sustainability are greatly impacted by the genuineness and legitimacy of brand labels as opposed to informational labels. The relationship between consumer trust, nutritional labeling, and brand integrity is becoming more and more important as businesses deal with the difficulties of purpose orientation.

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When taken as a whole, these findings show a growing research vacuum in our knowledge of how, in the context of sustainability, brand and nutritional labels affect customer perceptions, trust, and purchase intentions. The success of eco-labelling as a means of communicating social and environmental responsibility is influenced by how consumers view the quality and authenticity of the label. This emphasizes the need for more research into the ways that information and brand labels complement one another to influence customer behavior and combat greenwashing.

2.2 Research Objectives

- 1. To identify the prevalent greenwashing marketing practices adopted by the food and beverage industry.
- 2. To examine the impact of brand labelling on consumer perception and purchase intention.
- 3. To assess the influence of nutritional labelling on consumer perception and purchase intention.

2.3 Conceptual framework

For brand and nutritional labelling, it is important to consider how consumers engage with labels in various ways. Their awareness of the label's content influences how much attention they pay to the information provided. Trust in the labelling, particularly regarding product quality and health benefits, significantly impacts how consumers interpret the information. Lastly, visual attention is critical because consumers tend to engage more with labels that are visually appealing or easy to navigate. These variables play a pivotal role in determining the effectiveness of labels, whether it's a brand label that emphasizes product authenticity or a nutritional label that provides key health-related details. By examining how these factors affect consumer decisions, it can better understood how labelling strategies can be optimized for consumer engagement. It is vital to recognize the interrelationship between these variables, as they influence not only consumer perception but also their purchase intention, making them fundamental to marketing and product positioning.

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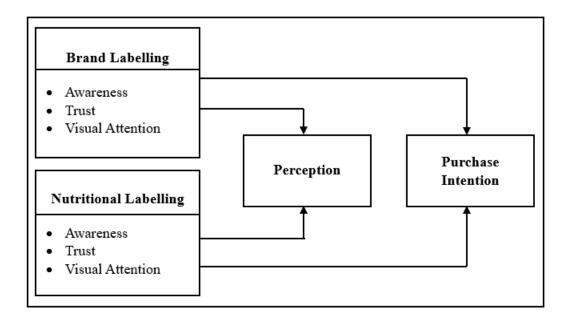


Figure 3: Conceptual Framework

2.4 Hypotheses

- H1: Brand labelling has a significant impact on consumer perception.
- **H2:** Brand labelling has a significant effect on purchase intention.
- **H3:** Nutritional labelling has a significant impact on consumer perception.
- **H4:** Nutritional labelling has a significant effect on purchase intention.

3. RESEARCH METHODOLOGY

3.1. Research Design

The study employed a descriptive survey design to investigate the comparative effects of brand labels and informational labels on consumer perceptions in the food and beverage industry. This approach allowed for real-time data collection in natural retail environments, ensuring ecological validity and capturing authentic consumer behavior.

3.2 Sample size: A sample of 250–300 consumers was selected using Godden's formula, ensuring demographic diversity to capture varied consumer responses.

The population in this study is large and considered infinite. Therefore Godden's (2004) formula was used for sample size calculation.

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Z = Z-score (considering a confidence level of 90%, this value is 1.645)

p = Maximum proportion of the population of interest. Considered as 0.5 for this case.

C = margin of error (considering 5% in this case)

Based on the above, the sample size comes to: [1.6452 * 0.5 (1-0.5)]/0.052 = 270.6

This gives us a sample size of 271 respondents to be surveyed.

- **3.3 Sampling Technique-** The study employs purposive sampling, a non-probability sampling technique used to deliberately select participants who are most relevant and suited to the research objectives.
- **3.4 Data collection-** Primary data was collected in retail environments, including malls and supermarkets, through observation and structured questionnaires to simulate actual purchasing conditions. Participants were exposed to two conditions: first, viewing brand labels only, followed by stimuli in the form of product packaging, where the nutritional labelling was highlighted and zoomed in for better visibility. This approach was designed to draw their attention specifically to the nutritional labelling, The aim was to ensure participants became aware of the presence and details of nutritional labelling on the product.
- **3.5 Data Analysis Techniques** Statistical techniques were applied to determine significant differences in consumer perceptions between brand labels and informational labels. Analytical methods, including regression, were used to evaluate the effect of labels on the perception and purchase intention of the product.

4. FINDINGS

Objective-1 To identify the prevalent greenwashing marketing practices adopted by the food and beverage industry.

Through the analysis of secondary data gathered from various reports, media sources, and industry publications identified the prevalent greenwashing practices that have surfaced in recent years. The table below summarizes these practices, providing an overview of how companies in the food and beverage industry have used misleading or exaggerated environmental claims.

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Table 1: Greenwashing Practices in the Food and Beverage Industry

Greenwashing	Description	Examples	Impact on Consumers
Practice	_	-	_
False Eco- Friendly Claims	Claiming products are eco-friendly without evidence or certification.	Using vague labels like "green," "sustainable," or "environmentally friendly" on packaging.	Misleads buyers into thinking products have environmental benefits.
Misleading Packaging	Using green-coloured packaging, nature images, or eco-themed designs to imply sustainability.	Beverage bottles with leaves, plants, or earth symbols to appear environmentally conscious.	Creates a false perception of sustainability.
Organic/All- Natural Claims Recycling	Overstating or falsely claiming products are organic or made with natural ingredients. Highlighting that	Labelling processed snacks as "100% natural" despite containing artificial additives. Beverage companies	Confuses consumers about the product's actual health or environmental impact. Leads to guilt-free
Claims	packaging is recyclable without ensuring proper systems are in place.	claiming "100% recyclable bottles" in areas lacking recycling facilities.	consumption while recycling isn't guaranteed.
Carbon Neutrality Claims	Claiming to offset carbon emissions without transparency or adequate action.	Brands claiming carbon neutrality based on questionable offset programs or vague reporting.	Misleads consumers about the company's actual environmental efforts.
Farm-To-Table Narratives	Suggesting products come directly from sustainable farms without traceable evidence.	Food brands using terms like "local" or "farm fresh" with no verification of sourcing practices.	Creates a false sense of authenticity and sustainability.
Minimal Plastic Promises	Highlighting reduced plastic use while ignoring other forms of environmental harm. Claiming materials are	Advertising reduced plastic in packaging while increasing the use of non-recyclable materials.	Diverts attention from overall environmental harm. Misleads consumers
Biodegradable Claims	biodegradable without proper certification or realistic timelines.	Packaging labeled as "biodegradable" but requiring specific conditions not widely available.	about the product's environmental impact after disposal.

Source: Researcher's Compilation from different sources

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This table can be useful for understanding how the food and beverage industry often uses greenwashing tactics to mislead consumers, creating a false image of sustainability and ecoconsciousness. Greenwashing practices in the food and beverage industry are multifaceted. Common tactics include using vague terminology like "natural", "healthy" or "sustainable" which often lack regulatory definitions. (Galmiche, 2023) Packaging design, including imagery of farms, greenery, or wholesome ingredients, is another tool employed to create an illusion of authenticity. According to a recent report, over 60% of products labelled as "natural" in the food industry were found to include artificial additives or unverified claims. (Schifferstein, 2022) These deceptive strategies undermine consumer trust and contribute to misinformation, highlighting the need for stricter labelling guidelines and transparent communication

Objective-2 To examine the impact of brand labelling on consumer perception and purchase intention.

H1: Brand labelling has a significant impact on consumer perception.

H2: Brand labelling has a significant effect on purchase intention.

VariablesPerceptionPurchase IntensionAwarenessNot Significant (p = 0.776)Not Significant (p = 0.384)TrustSignificant (p = 1.548 x 10^{-8})Significant (p = 9.05 x 10^{-11})Visual AttentionSignificant (p = 0.011)Significant (p = 0.023)

Table 2: Results for Objective 1

The regression analysis results indicate that among the three variables related to brand labelling, trust (p-value = 1.548×10^{-8}) and visual attention (p-value = 0.011) have a statistically significant impact on consumer perception as the p-values are less than 0.05, while awareness (p-value = 0.776) does not. Similarly, for purchase intention, trust (p-value = 9.05×10^{-11}) and visual attention (p-value = 0.023) are significant predictors, whereas awareness (p-value = 0.384) does not show a meaningful relationship.

Objective-3 To assess the influence of nutritional labelling on consumer perception and purchase intention.

H3: Nutritional labelling has a significant impact on consumer perception.

H4: Nutritional labelling has a significant effect on purchase intention.

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Table 3: Results for Objective 2

Variables	Perception	Purchase Intension
Awareness	Significant (3.45 x 10 ⁻¹⁶)	Significant (4.48 x 10 ⁻¹⁶)
Trust	Significant (0.005)	Significant (0.001)
Visual Attention	Not Significant (0.097)	Not Significant (0.251)

The regression analysis reveals that in the context of nutritional labelling, awareness, and trust significantly influence perception and purchase intention, with p-values of 3.45×10^{-16} and 0.005 for perception, and 4.48×10^{-16} and 0.001 for purchase intention, both below the 0.05 threshold. However, visual attention does not have a statistically significant impact on either perception or purchase intention, with p-values of 0.097 for perception and 0.251 for purchase intention, both exceeding the 0.05 threshold. Thus, awareness and trust are key predictors, while visual attention does not significantly influence consumer outcomes.

Thus, it can be safely inferred that all hypotheses are accepted because the statistical analysis supports the significant impact of both brand labelling and nutritional labelling on consumer perception and purchase intention, with trust and visual attention as key influencing factors for brand labelling and awareness and trust being significant for nutritional labelling.

5. DISCUSSION

5.1 Brand Labelling on Consumer Perception and Purchase Intention.

The analysis indicates that awareness does not have a significant impact on either perception or purchase intention, suggesting that simply seeing or being aware of a brand label does not necessarily alter a consumer's perception of the brand or their likelihood to purchase it. This could imply that other factors (such as the design, messaging, or credibility of the label) matter more than mere awareness in influencing consumer behavior. Trust is significant in both perception and purchase intention. This suggests that when consumers trust the information provided on the brand label, it positively influences their perception of the brand and makes them more likely to make a purchase. This is consistent with previous research that shows consumers are more likely to engage with brands they trust, especially in the food and beverage industry where product claims are often scrutinized. Visual attention also significantly affects both perception and purchase intention, meaning that the design and presentation of the label can strongly impact how consumers perceive the brand and their decision to buy. This indicates that a well-designed, attention-grabbing label can positively influence consumer perceptions and increase the likelihood of purchase.

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Thus, corresponding findings emphasize the importance of trust and visual attention in brand labelling. Awareness, while important, does not seem to have a direct impact on these outcomes in the context of brand labelling.

5.2 Nutritional Labelling on Consumer Perception and Purchase Intention.

Analysis indicates that awareness has a statistically significant impact on both perception and purchase intention. This suggests that when consumers are aware of the nutritional labelling, it positively influences their perception of the product and increases their likelihood of purchasing it. Awareness of nutritional information seems to play a crucial role in shaping how consumers evaluate the product, as well as in motivating their purchase behavior. These findings imply that a clear and prominent display of nutritional labels could have a significant impact on consumer decisions. Trust is also a significant factor in both perception and purchase intention. This suggests that when consumers trust the nutritional information on a product label, it enhances their perception of the product and increases their purchase likelihood. Trust is critical in ensuring that consumers believe the nutritional claims made on the label, which in turn affects their perception and decision to purchase. This finding aligns with previous research that highlights the role of trust in consumer behavior, particularly in food-related industries where consumers are highly cautious about product claims. Visual attention does not show a significant impact on perception or purchase intention. Even though consumers might pay attention to the label, the visual aspects (such as design or presentation) do not directly influence their perception of the product or their intention to purchase it. This suggests that while consumers may notice the label, it is not the visual design itself but the information conveyed through the label that affects their perception and purchasing decision.

6. CONCLUSION

This research investigates the impact of brand labelling and nutritional labelling on consumer perception and purchase intention. The results highlight that brand labelling is significantly influenced by trust and visual attention, both of which affect consumers' perception and intention to purchase a product. It can be clearly stated that companies use brand labels to do greenwashing by showing false claims on the brand label and providing wrong information. On the other hand, nutritional labelling significantly influences consumer perception and purchase intention through awareness and trust. However, visual attention was not found to have a significant impact on nutritional labelling in this study. These findings underline the critical role that clear and trustworthy labelling plays in shaping consumer behavior, as both brand and nutritional labels contribute to the decision-making process. This research emphasizes the importance of transparent, well-designed labelling strategies in influencing consumer perceptions and enhancing the

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likelihood of purchase, which is particularly relevant in today's market, where consumers are becoming increasingly concerned with both brand credibility and product health claims

7. IMPLICATIONS

According to this study, marketers can influence consumer behavior by using both brand and nutritional labeling. Businesses should concentrate on establishing trust in their brand labeling and making sure that the nutritional information offered is understandable, precise, and reliable in order to enhance consumer perception and promote buy intention. For brand labels, visual appeal is crucial, but for nutritional labels, the emphasis should be on maintaining transparency and trustworthiness because these factors have a big influence on consumer attitudes and purchase decisions. In order to preserve customer trust, managers need also be aware of the possible dangers of greenwashing and make sure that their statements are truthful and not deceptive.

From a societal standpoint, this study emphasizes how important it is to have reliable, accurate nutritional labels so that people may make better decisions. Given that customers are increasingly looking for clarity in product claims, the veracity of labeling information is critical for public health. False or overstated nutritional label claims (often known as "greenwashing") can prevent customers from making wiser decisions and may have an impact on public health outcomes. By promoting more informed consumer decision-making, ensuring that nutritional information is communicated in an honest and straightforward manner may help create a healthier society. By showing how false nutritional claims might affect consumer behavior, the study also adds to the body of research on greenwashing.

8. FUTURE SCOPE OF RESEARCH

Future studies can examine how demographic characteristics (such as age, income, and education) affect how customers react to nutritional and brand labels. Researchers could also look into how customer perceptions are affected by label design and message framing, particularly when it comes to health-related products. Additional research might look at how labeling affects customer behavior over the long run, especially in relation to how consistent exposure to reliable labels affects consumer trust and brand loyalty. Examining how labeling is viewed across cultural boundaries may potentially yield important information about consumer behavior worldwide. By examining other elements, including emotional reactions or label consistency, and their interactions with consumer attitudes and behaviors, future research can build on these findings.

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REFERENCES

- [1]. Aschemann-Witzel, J., Grunert, K. G., van Trijp, H. C., Bialkova, S., Raats, M. M., Hodgkins, C., ... & Koenigstorfer, J. (2013). Effects of nutrition label format and product assortment on the healthfulness of food choice. *Appetite*, 71, 63-74.
- [2]. Bagchi, D., & Nair, S. (Eds.). (2016). Developing new functional food and nutraceutical products. Academic Press.
- [3]. Baum, L. M. (2012). It's not easy being green... or is it? A content analysis of environmental claims in magazine advertisements from the United States and United Kingdom. Environmental Communication: A Journal of Nature and Culture, 6(4), 423-440
- [4]. Blocker, C. P., Cannon, J. P., & Zhang, J. Z. (2024). Purpose orientation: An emerging theory transforming business for a better world. *Journal of the Academy of Marketing Science*, 1-27.
- [5]. Blocker, C.P., Cannon, J.P. & Zhang, J.Z. Purpose orientation: An emerging theory transforming business for a better world. *J. of the Acad. Mark. Sci.* (2024). https://doi.org/10.1007/s11747-023-00989-5
- [6]. Bridging the Backlog Divide in Indian Courts through the Lens of NEP Tikkha, V., Agarwal, P., & Rajwanshi, R. Bridging the Backlog Divide in Indian Courts through the Lens of NEP.
- [7]. Cherry, M. A. (2013). The law and economics of corporate social responsibility and greenwashing. *UC Davis Bus. LJ*, *14*, 281.
- [8]. Choice, T. (2010). The Sins of Greenwashing: home and family edition. Underwriters Laboratories.
- [9]. Delmas, M. A., & Gergaud, O. (2021). Sustainable practices and product quality: Is there value in eco-label certification? The case of wine. *Ecological Economics*, 183, 106953.
- [10]. Delmas, M.A., & Gergaud, O. (2020). Sustainable Practices and Product Quality: Is There Value in Eco-Label Certification? The Case of Wine. *FoodSciRN: Sustainability Aspects of Food Production (Topic)*.
- [11]. Galmiche, A., Delerm, F., & Levy, M. (2023). Healthwashing: Corporate Communication Strategies in a Legal Gray Zone. *Loy. Consumer L. Rev.*, *36*, 23.
- [12]. Henderikx, F. (2017). Labelling of food: A challenge for many. *Veterinarski Glasnik*, 71(1), 16-23. https://doi.org/10.2298/VETGL170214001
- [13]. Keller, K. L. (2020). Consumer Research Insights on Brands and Branding: A JCR Curation. *Journal of Consumer Research*, 46(5), 995-1001.
- [14]. Klerkx, L., Jakku, E., & Labarthe, P. (2019). A review of social science on digital agriculture, smart farming and agriculture 4.0: New contributions and a future research agenda. *NJAS-Wageningen journal of life sciences*, 90, 100315.

ISSN: 2455-6939

Volume: 11, Issue: 01 "January-February 2025"

- [15]. Kuchler, F., Greene, C., Bowman, M., Marshall, K. K., Bovay, J., & Lynch, L. (2017). Beyond nutrition and organic labels—30 years of experience with intervening in food labels.
- [16]. Larsson, L. (2022). Perceptions of eco-labelling among the Swedish food sector.
- [17]. Lyon, T. P., & Maxwell, J. W. (2011). Greenwash: Corporate environmental disclosure under threat of audit. *Journal of economics & management strategy*, 20(1), 3-41.
- [18]. Marquis, C., & Toffel, M. W. (2011). The globalization of corporate environmental disclosure: accountability or greenwashing? Boston: Harvard Business School.
- [19]. Miller, L. M. S., & Cassady, D. L. (2015). Nutrition labels: A review of the literature. *Appetite*, 92, 207–216. https://doi.org/10.1016/j.appet.2015.05.02
- [20]. Schifferstein, H. N., Lemke, M., & de Boer, A. (2022). An exploratory study using graphic design to communicate consumer benefits on food packaging. *Food Quality and Preference*, 97, 104458.
- [21]. TIKKHA, V. (2023). Innovation Capability of Agro-Based Start-ups and its Effect on Organizational Performance (Doctoral dissertation, DAYALBAGH EDUCATIONAL INSTITUTE).
- [22]. Tikkha, V., Agarwal, P., & Rajwanshi, R. (2024). Assessing Greenwashing Practices With Special Relevance To The Food & Beverage Industry. *International Journal of Agriculture and Environmental Research*, 10(4), 472-492.
- [23]. Zafar, M. Z., Shi, X., Yang, H., Abbas, J., & Chen, J. (2022). The impact of interpretive packaged food labels on consumer purchase intention: The comparative analysis of efficacy and inefficiency of food labels. *International journal of environmental research and public health*, 19(22), 15098.

Websites:

- [1]. https://www.startupindia.gov.in/content/sih/en/search.html?industries=5f48ce5f2a9bb065 cdfa1732&roles=Startup&page=0
- [2]. https://hbr.org/2022/07/how-greenwashing-affects-the-bottom-line
- [3]. https://www.forbes.com/sites/retailwire/2022/07/13/hm-case-shows-how-greenwashing-breaks-brand-promise/
- [4]. https://pmc.ncbi.nlm.nih.gov/articles/PMC9690506/