The Impact of Eco-Branding and Eco-Labeling on Consumer Purchase Intention: A Comprehensive Analysis

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Abstract:

The aim of this study is to examine the influence of eco-labeling and eco-branding on consumer intention towards green consumption. The research focuses on understanding how eco- marketing strategies influence consumer's intentions to choose eco-friendly products. Data was collected using a survey method by distributing questionnaire among students in Faisalabad, Pakistan .Cross-sectional data from approximately 50 respondents were analyzed using SMART PLS and SPSS. The findings reveal a significant positive correlation between eco-labeling, eco-branding, and consumer intention, underscoring the pivotal role of these strategies in shaping green choices. Results indicate a significant positive correlation between eco-marketing strategies and consumer intention, highlighting the vital role of eco-labels and eco-brands in shaping green choices. This study provides valuable insights for businesses and policymakers, emphasizing the importance of environmental messaging in promoting sustainable consumer behavior and encourage eco-conscious attitudes.

Keywords: Eco labelling, Eco branding, consumer intention.

1. Introduction:

Humans are naturally inclined to be environmentalists and thrive in heuristic environments (Cheung & To, 2017). Exploring different horizons is also inherent to human nature, explore different avenues, sometimes prefer artificial life, but by nature they come back to their basics (Turi et al. 2018). In recent years, there has been a significant increase in consumer interest and awareness regarding environmental sustainability. This growing concern is attributed to various factors, including increased urbanization, population growth and the destructive impacts of human activities on the environment. As individuals become more alert of the need for sustainable practices there is a shift towards eco-friendly products and lifestyles. Pakistan, like many other countries is observing this trend towards green consumption especially among younger demographics. Faisalabad is one of Pakistan's major cities, presents an interesting context for studying consumer behavior in relation to eco-friendly products. With a diverse population, Faisalabad provides a unique setting to explore the dynamics of eco-branding and eco-labeling on consumer purchase intention.

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Eco-labeling and eco-branding have become important marketing strategies employed by businesses to communicate their commitment to environmental sustainability. Eco-labels such as certifications and seals, provide consumers with information about a product's ecological footprint and compliance to environmental standards. On the contrary, eco-branding involves merge sustainability into a brand's identity influencing consumer conceptions and preferences.

While previous research has explored the impact of eco-labeling and eco-branding on consumer behavior in various contexts, there is limited empirical evidence from Pakistan, particularly from cities like Faisalabad. Understanding how these marketing strategies influence consumer purchase intention in this specific cultural and economic context is essential for businesses and policymakers seeking to promote sustainable practices.

The concerns about environmental sustainability have increased consumer interest in green products. Despite the innate pull towards heuristic environments (Cheung and To 2017), the in urbanization and population growth has steered individuals away from their naturalistic inclinations, driven by the exploration of resources like oil energy and non-organic products, thereby posing substantial environmental risks (Ahmad et al. 2019). Socially and psychologically humans are affected with the artificial life and they want to live the life which was lived by their forefathers centuries back (Sivapa- lan et al. 2021; Zafar et al. 2021).

More people are forcing and reshaping to have a more organic and natural life rather than consuming modified or planned lifestyle by the human of which the ultimate effect is a negative lifestyle (Alfahad et al. 2022). This is not limited to some specific area, but contextual studies conducted in different parts of the world proclaim that humans are forcing themselves to adopt pragmatic behaviors, which bring them nearer to naturalism (Joo et al. 2020; Testa et al. 2021). Mohsin et al. (2019) referred to it as a movement, and is greatly affecting and changing human (consumer) behaviors and they are pealing for environmental preservation, protection, and sustainability. This collective effort on both individual and societal levels emphasizes a growing concern for environmental preservation and sustainable development. Environmental activism is reshaping preferences, stimulating the development and consumption of green products that contribute to both individual growth and environmental protection (Mohsin et al., 2021). Notably, in China, there has been a noticeable shift in the behavior of the youth, marked by a significant increase in green consumption (Agyekum et al., 2021).

Consumer intention, the dependent variable in this study, represents the inclination of individuals towards a specific behavior related to consumption. It could involve their willingness or plan to engage in green consumption practices, which align with environmental preservation and sustainability. Consumer intention is a crucial aspect in understanding the choices individuals make in terms of the products they purchase, particularly in the context of eco-friendly and green alternatives (Ajzen, 1991; Paul et al., 2016). These variables can influence and control consumer behavior and intentions. Eco-labeling involves displaying environmental certifications on products, indicating their adherence to certain eco-friendly standards (Thøgersen, 2000). Eco-branding, on the other hand, involves associating a brand with environmental sustainability (Hartmann & Apaolaza-Ibáñez, 2012). In the study's framework, it appears that eco-labeling and eco-branding are investigated as independent variables affecting consumers' altruistic and egoistic motivations, attitudes, subjective norms, and, ultimately, their intentions towards green consumption (Schwartz, 1977; Stern, 2000).

Eco-labelling is an independent variable, eco-labeling is used to measure how the presence of these labels affects consumer behavior. It aims to understand if consumers are more likely to choose products labeled as environmentally friendly, and how these labels impact their intentions, attitudes and purchasing decisions. Eco-branding is also an independent variable; eco-branding explores how the perception of a brand's commitment to environmental sustainability influences consumer behavior. It examines whether consumers are more inclined to support and purchase products from brands that align with their environmental values, and how this branding strategy affects their overall intentions and attitudes towards green consumption (Hartmann & Apaolaza-Ibáñez, 2012).

The study aims to uncover how these eco-marketing strategies, particularly in the realm of social media, impact and influence consumer behavior. This article aims to delve into the intricate relationship between eco-labeling, eco-branding, and consumer intentions, offering valuable insights for businesses and policymakers. This study makes a significant contribution by unraveling the complex interplay between eco-labeling, eco-branding, and consumer behavior, particularly in the context of green consumption (Thøgersen, 2000; Paul et al., 2016). By examining the influence of these variables through social media platforms, the research sheds light on evolving global trends, emphasizing the increasing preference for environmentally conscious choices (Kaplan & Haenlein, 2010).

Noteworthy insights include the collective yearning for a return to a simpler, more organic lifestyle, the observed surge in green consumption amid the COVID-19 pandemic, and

specific changes in the behavior of Chinese youth (Agyekum et al., 2021). This study, based on the Theory of Planned Behavior, provides valuable guidance for businesses, policymakers, and researchers seeking to understand and promote sustainable practices in the dynamic landscape of consumer behavior (Ajzen, 1991; Mohsin et al., 2021). Human beings possess natural connection with nature and often find solace in environments that resonate with natural elements (Cheung & To, 2017). However, the rapid speed of urbanization and population growth has led to a significant departure from these natural inclinations. This shift is largely driven by the widespread adoption of non-organic products and reliance on resource-intensive energy sources like oil, posing grave environmental threats (Ahmad et al., 2019). Despite advancements in technology and lifestyle, there's a prevailing sentiment among individuals to return to a simpler, more organic way of life, similar to their ancestors practices (Sivapalan et al., 2021; Zafar et al., 2021).

Across various regions, there's a clear trend towards embracing organic and natural lifestyles over the consumption of artificially modified goods, which often come with adverse environmental consequences (Alfahad et al., 2022). This trend, often characterized as a movement, underscores a collective desire for environmental preservation and sustainability (Mohsin et al., 2019). Environmental activism has played a pivotal role in reshaping consumer preferences, leading to increased demand for green products that promote individual well-being while mitigating environmental harm (Mohsin et al., 2021).

Notably, the youth demographic, particularly in countries like China, has exhibited a heightened interest in green consumption practices, signaling a significant shift in consumer behavior (Agyekum et al., 2021). Consumer intention, which reflects individuals' inclination towards environmentally friendly consumption, has emerged as a crucial aspect in understanding purchasing decisions, especially concerning eco-friendly alternatives. In this context, eco-labeling and eco-branding serve as important marketing strategies that influence consumer behavior. Eco-labels, such as certifications and seals, provide consumers with information about a product's environmental impact and compliance with sustainability standards. On the other hand, eco-branding involves integrating sustainability into a brand's identity, shaping consumer perceptions and preferences.

This study seeks to explore the impact of eco-labeling and eco-branding on consumer purchase intention, particularly in the context of cities like Faisalabad, Pakistan. Despite growing awareness of environmental sustainability, there's limited empirical evidence on how these marketing strategies influence consumer behavior in this specific cultural and economic

context. By examining the dynamics of eco-branding and eco-labeling on consumer behavior, this research aims to provide valuable insights for businesses and policymakers. Through social media platforms, the study will delve into the intricate relationship between these marketing strategies and consumer intentions, shedding light on evolving global trends and preferences for environmentally conscious choices.

Grounded in the Theory of Planned Behavior, this study holds significant implications for businesses seeking to promote sustainable practices and policymakers aiming to address environmental challenges. By understanding the interplay between eco-labeling, eco-branding, and consumer behavior, stakeholders can develop targeted interventions and initiatives to bring up a more sustainable future.

2. Literature Review:

The contextual literature eco-labeling and eco-branding provides a good understanding of their impact on consumer intention. Previous research has highlighted the importance of eco-labels in conveying environmental messages to consumers and shaping their perceptions and purchase intentions. Similarly, eco-branding which involves integrating environmental communications into a brand name, has been shown to influence consumer behavior and attitudes. This chapter will provide existing research over view on the mechanisms by which eco-labelling and eco-brand influence consumers' green choices.

Consumer Intention

It means that people will-fully and consciously want to make eco-friendly choices. This includes planning to buy products and embracing lifestyles that support the environment, natural living, and health. This concept acknowledges that consumer intentions are influenced by different things, like social and psychological factors, the impact of the COVID-19 situation, and how products are labeled and branded as environmentally friendly. The extent to which an individual plans, or is willing, to take certain actions to meet a specific need or want. This highlights the individual's intention to take action, which is influenced by their perceived need for a product or service (Chaffey et al.)

One commonly use concept of consumer purchase intention is provided by Schiffman and Kanuk (2007), who define it as the tendency to buy a certain brand or product within a given category. This reflects the consumer's inclination to make a purchase which can be influenced by various factors such as attitudes, perception, and external stimuli. So, when someone has a consumer intention in this context, it means they are actively deciding to contribute to their own well-being and the overall health of the environment.

Eco-labelling

Eco- labelling is one of the vital green marketing tools. Eco-labelling began in the late 1970s with the German Blue Angel. This was a reaction to the shift in focus from production to products and from regulative to push-pull approach. Expansion of eco-labelling initiatives started ten years later. The Nordic Eco-label was one of the new labels. Today there are over 300 eco-labels on the global market (Case, 2009). In the view of this proliferation, several organizations have tried to establish international convergence and have started to structure and classify environmental labels (Ahrne and Brunsson, 2008). Examples include the International Organization for Standardization (ISO), the Global Eco-labelling Network (GEN) and the International Social and the Environmental Accreditation and Labelling Alliance (ISEAL). Eco-labeling is discussed as a important factor influencing consumer intention.

The presence of eco-labels on products is suggested to shape consumers perceptions, attitudes and intentions, encouraging them to opt for environmentally friendly choices. This aligns with the broader trend observed in the literature of a growing interest in green consumption practices and sustainability. The purpose of eco-labeling is to help consumers make environmentally conscious choices by providing clear and easily recognizable information about the ecological impact of a product. It serves as a tool for transparency that allows consumers to align their purchasing decisions with their environmental values. Eco-labels can be found on various products, ranging from household appliances to food and clothing.

Eco-branding

Eco-branding was first introduced in 1978 by German Blue Angel (Erskine & Collins, 1997) to help consumers make decisions about the products they have and to decide whether they are environmentally friendly or not (Bratt et al. 2011). Such branding intended for preserving the environment, promoting environment-friendly innovations, and raising awareness of the consumers (Bratt et al. 2011; Gallastegui 2002). Along with Blue Angel in late 1970s, Japanese Eco-Mark, Swedish Environmental Choice, and Nordic Swan Programs etc. certification programs have become quite popular when ecological green marketing had been flourishing (Mason 2006). Some great environmental catastrophic events (e.g. the Chernobyl explosion, Oil spillage by tankers, ozone hole discovery etc.) in the late 1980s directed towards increased interaction between economy and environment, and in the process, led to the evolution of sustainable eco-technology (Sarkar 2012).

Eco-brand is a name, symbol or design of products that are harmless to the environment. Utilizing eco-brands can help consumers to differentiate them in some way from other non-

green products. The concept of eco-branding revolves around the environmentally friendly practices associated with a brand or product. It is about integrating sustainability into a brand's identity. This can include adopting eco-friendly manufacturing processes, using recycled materials, reducing carbon footprints, and supporting environmental causes .Eco-branding serves multiple purposes. First it communicates the brand's commitment to environmental responsibility, appealing to consumers who prioritize sustainable choices. Second it distinguishes the brand in the market, creating a positive and distinctive image. Third it can influence consumer perceptions and preferences, encouraging them to choose products associated with a commitment to ecological well-being.

Eco-Labeling and Eco-Branding as Marketing Strategies

Eco-labeling and eco-branding emerge as important marketing strategies employed by businesses to communicate their commitment to environmental sustainability. Eco-labels, such as certifications and seals, provide consumers the information about a product's environmental footprint and comply with sustainability standards. On the other hand, eco-branding integrates sustainability into a brand's identity, influencing consumer perceptions. In the positive interaction between eco-labels, eco-brands and consumer needs, a relationship has also emerged in health. Eco-labels serve as visual warnings on products and provide information to the consumer. It communicates the product's compliance with certain environmental standards, reflects consumer needs and encourages environmentally responsible decision-making. At the same time, eco-branding contributes to this interaction by creating an overall narrative around the brand's commitment to sustainability. It improves brand quality, increases customer trust and affects their overall preferences.

Consumers are attracted to eco-labels and eco-brands and aware of green behavior. The presence of eco-label creates a sense of transparency. At the same time eco-branding helps create consumer values by connecting products with environmental benefits. The end result of these activities is to develop the customer's intention, commitment and willingness to choose products that comply with environmental sustainability, naturalism and health decision-making. This relationship shows the importance of ecology and health. Labels and eco-brands influence consumers to make more sustainable choices. Together they create a mutually beneficial relationship that leads to the spread of green culture.

Theory of Planned Behavior:

The Theory of Planned Behavior (TPB) is a well-established theoretical framework in social psychology used to understand human behavior. According to the theory of planned behavior

an individual's intention to perform a specific behavior such as purchasing eco-friendly products is influenced by three main factors. Attitude refers to the individual's positive or negative perception of performing the behavior. In the context of eco-branding and eco-labeling, consumers' attitudes towards environmental sustainability and their perceptions of eco-friendly products can influence their purchase intention. Subjective norms refer to the perceived social pressure or influence from others regarding the behavior. Consumers may be influenced by social norms, such as peer behavior or societal expectations which can affect their intention to purchase eco-friendly products.

Perceived Behavioral Control refers to the individual's perception of their ability to perform the certain behavior. Factors such as accessibility, affordability of eco-friendly products can influence consumer's perceived control over their purchasing decisions. In this study theory of planned behavior provides a theoretical framework for understanding how eco-branding and eco-labeling influence consumer purchase intention. Eco-branding and eco-labeling serve as external stimuli that shape consumers' attitudes, subjective norms, and perceived behavioral control related to purchasing eco-friendly products. By investigating these variables within the framework of the TPB, the study aims to uncover the mechanisms through which eco-marketing strategies impact consumer behavior and intentions towards green consumption.

Hypothesis:

H1: There is no significant relation between Eco-Branding and Purchase Intention

H2: There is a significant relation between Eco-Labeling and Purchase Intention

H3: There is a significant relation between Eco-Branding and Purchase Intention

H4: There is no significant relation between Eco-Labeling and Purchase Intention

3. Methodology:

In order to achieve the study's stated goal, a questionnaire was formed, which was distributed among the respondents from our university fellows, friends and using online social media platform. Informed consent will be obtained, emphasizing the voluntary nature of participation. Responses will be collected anonymously to ensure privacy. In this research, a non-probability sampling technique was employed to select participants specifically the target population was students from different faculties across the Pakistan city Faisalabad. Individual respondent was kept as a unit of analysis. Cross-sectional data were collected from

the respondent. Almost 50 people were contacted and SMART PLS and SPSS were applied to analyze the results.

To address common method bias in the study, researchers can implement several strategies. One approach is to separate the data collection methods for the independent and dependent variables, utilizing different methods such as interviews or observational studies if possible. Additionally, using different response formats for the variables can help differentiate them and reduce the likelihood of bias. Including control variables that are not affected by common method bias can isolate the effects of the independent variable on the dependent variable. Researchers can also conduct robustness checks using alternative methods to validate the findings and confirm that common method bias is not significantly influencing the results. By employing these strategies, researchers can mitigate common method bias and enhance the valid and reliability of the research findings.
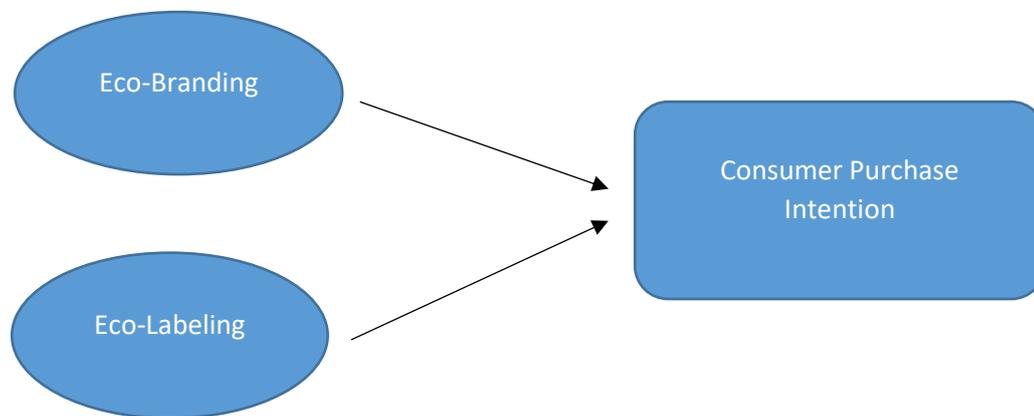

Fig.1 Conceptual Model

The table presents extensive breakdown of the demographic profile of the surveyed population, offering insights into various key factors such as age, gender, education level, and employment status and income distribution. In terms of age, the majority of respondents fall within the 18-24 age bracket, constituting 72.0% of the sample, followed by those aged 25-34 at 22.0%, with negligible representation from older age groups.

Gender distribution shows a relatively balanced sample, with males comprising 54.0% and females 46.0% of respondents. Education levels vary with a significant portion having completed post-graduate studies (56.0%), followed by college or university graduates (36.0%).

Employment status reveals that a substantial portion of the respondents are either employed (42.0%) or students (38.0%), while smaller percentages are unemployed (10.0%), retired (2.0%), or fall under 'other' categories (8.0%).

4. Measurement & Results:

Table 1 Respondents demographics

Items		Frequency	Percentage %
Age	18-24	36	72.0
	25-34	11	22.0
	35-44	3	6.0
	45-54	0	0
	55 and above	0	0
Gender	male	27	54.0
	female	23	46.0
Education	primary	0	0
	high school	3	6.0
	college or university	18	36.0
	post graduate	28	56.0
	phd	1	2.0
Employment	employed	21	42.0
	unemployed	5	10.0
	student	19	38.0
	retired	1	2.0
	other	4	8.0
Income	less than 50k	26	52.0
	51k-100k	14	28.0
	101k-150k	1	2.0
	151k-200k	4	8.0
	Above 200k	5	10.0

N=50

The income distribution illustrates a majority earning less than 50k (52.0%), with smaller segments falling into higher income brackets, including 51k-100k (28.0%), 101k-150k (2.0%), 151k-200k (8.0%), and above 200k (10.0%). Overall, the table offers valuable insights into the diverse demographic makeup of the surveyed population, reflecting varying age groups, gender representation, educational backgrounds, employment statuses, and income levels.

Table 2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AEB	50	1.00	5.00	3.5400	0.75078	-0.137	0.337	1.751	0.662
AEL	50	1.00	5.00	3.4960	0.93481	-0.542	0.337	0.708	0.662
ACPI	50	1.00	5.00	3.5600	0.94156	-0.370	0.337	0.698	0.662
Valid N (listwise)	50								

Table 3 Factor loadings

Constructs/items	F.L	CA	CR	AVE
Eco-labeling		0.942	0.381	0.93481
EL1	0.536			
EL2	0.704			
EL3	0.499			
EL4	0.630			
EL5	0.418			
Eco-branding		0.881	0.985	0.75078
EB1	0.645			
EB2	0.779			
EB3	0.801			
EB4	0.860			
EB5	0.783			
Consumer purchase intention		0.959	0.383	0.94156

CPI1	0.783
CPI2	0.775
CPI3	0.826
CPI4	0.877
CPI5	0.769

FL factor loadings, *CA* Cronbach's alpha, *CR* composite reliability, *AVE average* variance extracted

Reliability and Validity:

The study confirms strong internal consistency reliability (Cronbach's alpha > 0.7) and convergent validity (AVE > 0.5) of the measurement scales used, affirming the reliability and effectiveness of the constructs measured.

Factor Loading Results:

Items assessing eco-labeling, eco-branding, and consumer purchase intention demonstrate substantial factor loadings (> 0.5), indicating alignment with their intended constructs.

Composite Reliability:

The notable composite reliability values (> 0.7) further affirm the internal consistency and reliability of the measurement model, bolstering confidence in the reliability of the constructs gauged.

Relationships Between Variables:

The study reveals a positive relationship between eco-labeling, eco-branding, and consumer intention towards green consumption. Eco-labeling and eco-branding positively influence consumer attitudes and intentions towards choosing environmentally friendly products. The study found that there is a positive relationship between eco-labeling, eco-branding and consumer intention towards green consumption. Analysis of the collected data using SMART PLS and SPSS showed that both eco-labeling and eco-branding positively influence consumer attitudes and intentions towards choosing environmentally friendly products.

Specifically, respondents showed consciousness for products labeled as environmentally friendly. The presence of eco-labels on products was associated with increased consumer trust and perceived transparency, leading to a greater inclination towards green purchasing

decisions. Similarly, eco-branding played a vital role in shaping consumer perceptions with brands emphasizing their commitment to sustainability being more favored among respondents. Moreover, the study identified that consumer intention towards green consumption was positively impacted by both eco-labeling and eco-branding strategies. This suggests that effective implementation of these eco-marketing tactics can significantly influence consumer behavior and promote a culture of sustainability.

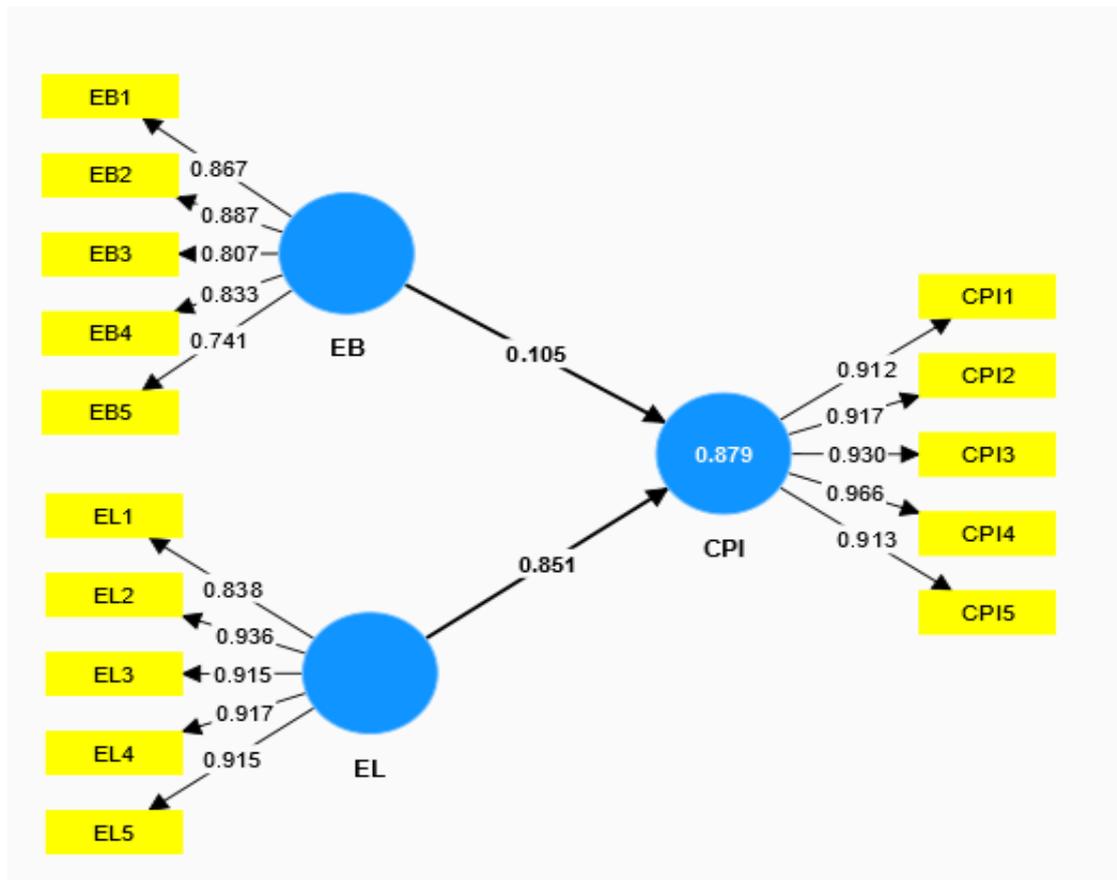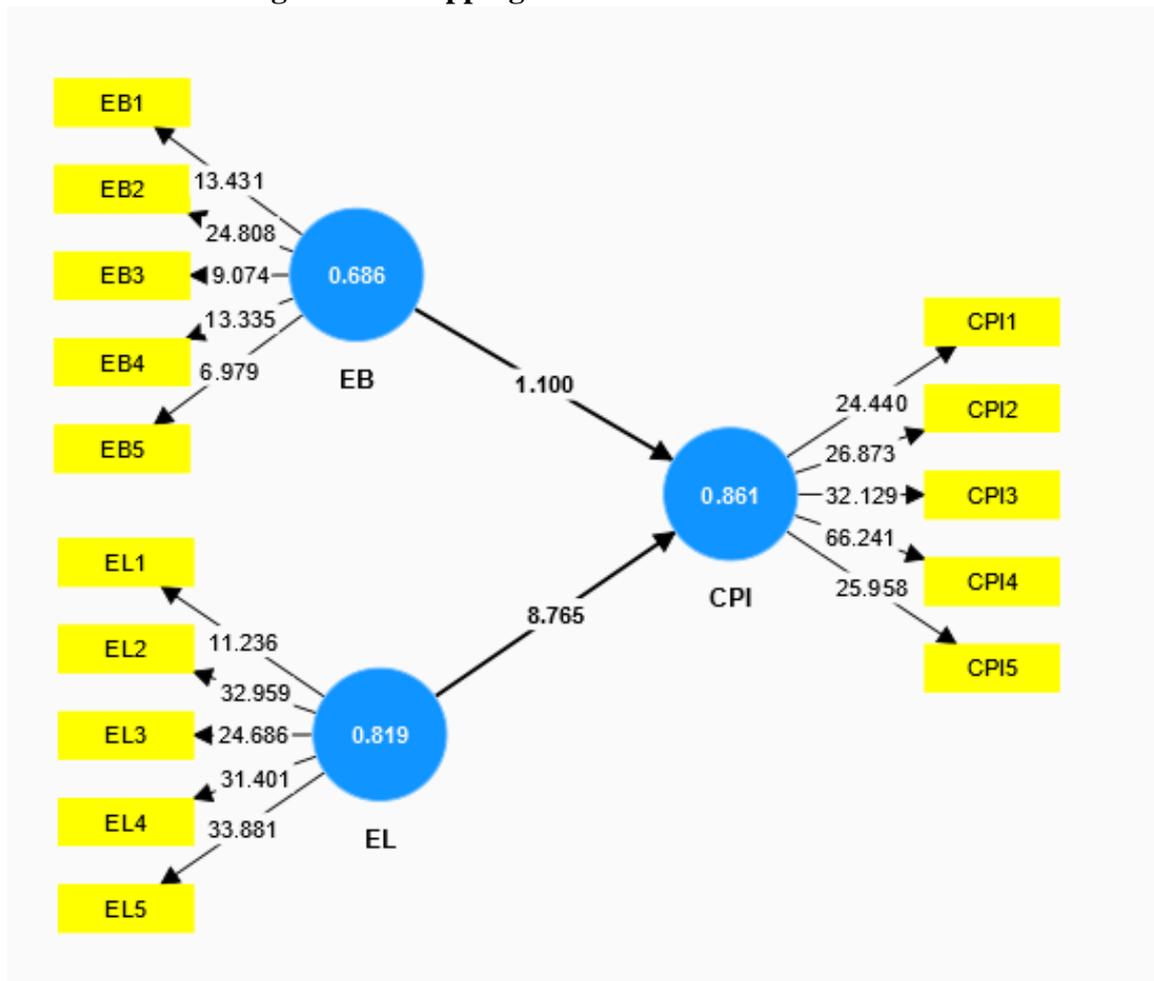**Fig.2 Factor loadings, path coefficient and R-square results (PLS-algorithm)**

Table 4 Discriminant validity

Constructs	CPI	EB	EL
CPI			
EB	0.855		
EL	0.980	0.886	

CPI consumer purchase intention, *EB* eco-branding, *EL* eco-labelling

Table 5 (Direct effect)

Hypothesis	Beta	t	Sig.
EB>CPI	0.088	0.977	0.334
EL>CPI	0.860	9.571	0.000

Fig. 3 Bootstrapping results with inner model t-values

The study found a positive relationship between eco-labeling, eco-branding, and consumer intention towards green consumption. Analysis of the collected data using SMART PLS (Partial Least Squares Structural Equation Modeling) and SPSS (Statistical Package for the Social Sciences) showed that both eco-labeling and eco-branding positively influence consumer attitudes and intentions towards choosing environmentally friendly products. Precisely, respondents showed a heightened awareness of products labeled as environmentally friendly. The presence of eco-labels on products was associated with increased consumer trust

and perceived transparency, leading to a greater inclination towards green purchasing decisions. This finding is consistent with previous research emphasizing the role of eco-labels in providing transparency and enabling consumers to make informed choices that align with their environmental values.

Similarly, eco-branding played very important role in shaping consumer perceptions, with brands emphasizing their fidelity to sustainability being more favored among respondents. This aligns with earlier studies that have shown how eco-branding can enhance brand image and consumer trust, thereby influencing purchasing decisions. Moreover, the study identified that consumer intention towards green consumption was positively impacted by both eco-labeling and eco-branding strategies. The analysis using SMART PLS revealed that these eco-marketing tactics significantly affect consumer behavior by demonstrating a brand's commitment to environmental sustainability. SPSS analysis further supported these findings by showing statistically significant relationships between eco-labeling, eco-branding, and consumer intention.

This suggests that the effective implementation of eco-marketing plan can significantly influence consumer behavior and promote a culture of sustainability. The study builds on previous research by providing empirical evidence on the positive effects of eco-labeling and eco-branding on consumer intentions, thereby reinforcing the importance of these strategies for businesses aiming to foster environmentally conscious consumer behavior.

5. Discussion:

The discussion of the research findings brings out the important role of eco-labeling and eco-branding in shaping consumer intentions towards green consumption. The study's findings highlights the importance of these eco-marketing strategies in fostering environmentally conscious behavior among consumers. Eco-labeling has become a significant factor influencing consumer perceptions and attitudes towards green products. The presence of eco-labels on products was found to positively impact consumer intentions, indicating a willingness to choose environmentally friendly options. This aligns with previous research emphasizing the role of eco-labels as tools for transparency and information provision, enabling consumers to make informed choices that align with their environmental values.

Similarly, eco-branding have an impact on consumer behaviour. Brands that communicated a commitment to environmental sustainability through eco-friendly practices and messaging were more likely to attract consumers seeking green alternatives. This shows the importance

of branding strategies in creating a positive image and fostering trust among environmentally conscious consumers. The results of this study have some important implications for businesses, policymakers and educators.

However, there are limitations to this study that must be considered. One significant limitation is the sample size, which may not be large enough to generalize the findings to a broader population. Additionally, the methodology used might have biases, such as self-reported data, which can be influenced by social desirability bias. Another limitation is the potential lack of diversity within the sample, which may not fully represent the varied demographic characteristics of the general consumer population. Future research should aim to address these limitations by including larger and more diverse samples and employing methodologies that mitigate biases.

In our discussion, we delve into the intricate relationship between eco-branding and eco-labeling as independent variables, and their impact on consumer purchase intention as the dependent variable. The focus of this comprehensive study lies in elucidating the significant role of eco-labeling, represented by its P-value, T-value, and beta values, in influencing consumer behavior, while comparatively assessing the influence of eco-branding. By exploring these variables, we aim to provide a deeper understanding of how consumers' environmental concerns shape their purchasing decisions and how businesses can strategically utilize eco-labeling to enhance their market competitiveness and sustainability initiatives.

Eco-Labeling as a Significant Variable:

Eco-labeling, characterized by its distinct P-value, T-value, and beta values, emerges as a pivotal factor driving consumer purchase intention. The presence of eco-labels on products serves as a tangible indicator of their environmental attributes, aiding consumers in making informed choices aligned with their sustainability preferences. The statistically significant values associated with eco-labeling underscore its potency in influencing consumer behavior, as evidenced by its ability to positively impact purchase intentions. Moreover, eco-labeling transcends mere marketing tactics; it fosters trust and credibility among consumers, instilling confidence in the eco-friendliness of products and fostering long-term brand loyalty.

Eco-Branding and its Comparative Influence:

In contrast, while eco-branding holds significance in conveying a company's environmental ethos, its impact on consumer purchase intention appears less pronounced when compared to

eco-labeling. Despite efforts by businesses to cultivate eco-friendly brand images, the tangible markers provided by eco-labels seem to carry greater weight in shaping consumer perceptions and purchase decisions. However, it is essential to acknowledge that eco-branding can still complement eco-labeling efforts by reinforcing the overall sustainability narrative of a brand and enhancing its appeal to environmentally conscious consumers.

Implications:

Firstly, businesses or companies can use eco-labeling and eco-branding as an effective marketing tools to differentiate their products and appeal to the growing segment of environmentally conscious consumers. By adopting sustainable practices and transparent communication, companies can enhance their brand image and gain a competitive edge in the market. Secondly, policymakers can use the insights from this study to develop regulations and standards for eco-labeling and eco-branding practices. Clear guidelines and mechanisms are essential to ensure the credibility and effectiveness of eco-marketing strategies, thereby raise consumer trust and confidence in green products.

Lastly, educators can play a vital role in raising awareness and promoting sustainable consumption behaviors among consumers. By combine environmental education into curriculum and outreach programs, educators can empower individuals to make informed choices that contribute to a more sustainable future. The study provides valuable insights into the complex interplay between eco-labeling, eco-branding, and consumer intentions towards green consumption. By highlighting the effectiveness of these eco-marketing strategies in shaping consumer behavior, the research provides a foundation for future studies and practical applications and promote sustainability in consumer choices.

The findings of this study have significant implications for businesses seeking to align their marketing strategies with evolving consumer preferences for eco-friendly products. By prioritizing eco-labeling initiatives and ensuring the transparency and credibility of environmental claims, companies can bolster their competitive advantage and cultivate a loyal customer base. Furthermore, this study underscores the need for further research to explore the nuanced interplay between eco-branding and eco-labeling, considering contextual factors such as industry dynamics and consumer demographics. By gaining deeper insights into these dynamics, businesses can refine their marketing approaches and contribute to the broader sustainability agenda.

6. Conclusion:

In conclusion, this study highlights the significance of eco-labeling and eco-branding in shaping consumer intentions. By look over the relationship between environmental messaging, consumer behavior, and general trends, the research provides valuable insights for businesses, policymakers, and researchers. The findings highlight the importance of aligning marketing strategies with consumer values and preferences to encourage sustainable practices and foster eco-conscious attitudes.

Looking forward, further research is needed to explore cross-cultural variations in eco-marketing effectiveness, conduct longitudinal studies to track changes in consumer behavior over time, and employ qualitative methods to delve deeper into consumer motivations and perceptions. By understanding the dynamics of eco-marketing, businesses and policymakers can collaborate to create a more sustainable future for both consumers and the planet.

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Appendix:

Questionnaires for Survey

Section 1: Demographic Information

1-Age:

- 18-24
- 25-34
- 35-44
- 45-54
- 55 and above

2-Gender:

- Male
- Female

3-Education:

- Primary
- High School
- College or University
- Post Graduate
- PhD

4-Employment Status:

- Employed
- Unemployed
- Student
- Retired
- Other

5-Income (per month):

- Less than 50k
- 51k-100k
- 101k-150k
- 151k-200k
- Above 200k

Section 2: Eco-Branding and Eco-Labeling Perception

Please indicate your level of agreement with the following statements on a scale from 1 to 5, where:

1. I pay attention to eco-labels when making purchasing decisions.
2. I am familiar with eco-branding practices of products.
3. I trust products with eco-labels more than those without.
4. I believe eco-brands are more environmentally responsible.
5. Eco-labels influence my intention to purchase eco-friendly products.
6. I prefer buying products from brands that have eco-labels.
7. Eco-branding positively influences my perception of a product's quality.

Section 3: Consumer Purchase Intention

Please indicate your level of agreement with the following statements on a scale from 1 to 5, where:

1. I intend to purchase more eco-friendly products in the future.
2. I am willing to pay a premium for products labeled as eco-friendly.
3. Supporting eco-friendly brands is important to me.
4. I actively seek out eco-friendly alternatives when shopping.
5. Environmental sustainability influences my purchasing decisions.

This questionnaire is used to collect data for the study on how eco-branding and eco-labeling influence consumer purchase intention.