

Impact of Green Packaging on Purchase Intention with special reference to Gen Z

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Abstract:

The growing environmental concern has made today's Youngsters to use sustainable products and concentrate on green packaging solutions. This research article tries to throw light on green packaging attributes on purchase intention of Generation Z consumers. In this research article four attributes of eco-friendly materials, recyclability, reusability, and minimalistic packaging were identified as independent variables and purchase intention as dependent variable. A well-structured questionnaire was implemented to collect data on a five-point likert scale. Correlation and regression were used to test the hypothesis. This research paper will be highly helpful for further researchers by providing valuable insights for marketers and manufacturers seeking to integrate sustainable packaging practices to enhance consumer acceptance and promote green consumption behaviour.

Keywords: Green Packaging, Generation Z, Purchase Intention, Sustainable Packaging Attributes

Introduction:

Environmental sustainability is no longer a fad but a necessity that has relegated industries and consumers to eco-friendly alternatives of the product lifecycle at all stages. Among these commitments, green packaging has attracted enormous attention as a consequence of the disappearance of commonly used resource-intensive materials from the palette of organizations and their replacement with sustainable ones. Packaging, that is just a tool in the past, is now one of the most powerful marketing elements capable of transforming consumer views, brand image improvement, and fostering responsible consumer behavior. With the worsening of environmental problems, the use of green packaging methods is not only important for the execution of laws and regulations but also for satisfying the ever-growingly eco-conscious consumers' demands.

Generation Z, the people born approximately between 1997 and 2012, is a very eco-conscious demographic trend. Being climate-aware, digitally connected, and socially active, Gen Z consumers are more environmentally friendly, ethical, and socially responsible brands loyal. Sustainability aspects such as the use of green materials, recyclability, reusability, and minimalistic packaging are the very factors that influence their buying decisions. When this group of consumers gradually becomes the largest and most influential, understanding what drives their purchasing power will be of great importance to the businesses.

“Green packaging” as a broad concept refers to packaging designed with lower environmental impact (for example through reduced material use, use of recycled or renewable content, or environmentally conscious design) and which is communicated as such. Recent research has begun to zero in on how such packaging affects young consumers. Green packaging attributes not only help in the proper functioning of a product but also stimulate customers' psychology and shape their attitudes and behavioral intentions. The use of eco-friendly materials sends a

message to the consumer that the brand is concerned about environmental protection, while the recyclability and reusability give the users a feeling that they are playing their part in the sustainability mission. Minimalistic packaging, which focuses on less waste as well as simplicity of both the material and the process, serves the lifestyle preferences of young environmentally conscious consumers. All these attributes, when combined, can significantly affect consumers' product evaluation processes and their readiness to buy.

Though there is ample research evidence related to sustainable consumption, few studies about how each green packaging feature can motivate Gen Z to buy exist, especially in emerging markets such as India. Understanding these elements can assist marketers in creating more effective packaging strategies, encouraging environmentally friendly consumption, and winning over this important market group to their brand.

The purpose of this study is to determine how Generation Z customers' purchase intentions are impacted by four essential components of green packaging: the use of ecofriendly materials, recyclability, reusability, and minimalistic packaging. By examining these links, this study makes a significant contribution to the current discussion on sustainable marketing and offers useful recommendations to businesses looking to develop a packaging strategy that satisfies modern consumer expectations.

Literature Review

Green packaging effects on purchasing decisions among Gen Z

Lopes et al. (2024) explore antecedents of Gen Z's green purchasing decisions in Portugal using PLS-SEM on a Gen-Z sample; they find environmental concern, social norms and perceived product quality significantly predict green purchase intention, and emphasize that packaging cues that signal environmental performance strengthen intentions among Gen Z.

Prabhakar et al. (2024) examine post-pandemic drivers of Generation Z's purchase intention for green products (including packaging cues) in China; using survey/SEM they report that perceived product effectiveness and sustainability cues (packaging included) raise purchase intention, and that trust mediates the packaging → intention link. Meet et al. (2024) study Generation Z across contexts to test how socio-demographics, greenwashing perceptions, and marketing mix elements (including green packaging) influence green purchasing intention; results show Gen Z is sensitive to authenticity and will penalize shallow green claims while responding positively when packaging is clearly and credibly sustainable. A 2025 empirical study of Gen Z in Iligan City (Philippines) tested attitude, environmental concern, personal norms and willingness-to-pay as predictors of purchase intention for products with green packaging; it reports that pro-environmental attitudes and perceived personal norms significantly increase Gen Z's intention to buy products with green packaging. Ramadhanti et al. (2024) investigate youth (including Gen Z) and circular packaging in Indonesia; using SEM they show that circular/green packaging attributes (e.g., recyclability, reduced material use) positively affect green purchase behavior in younger cohorts, with environmental awareness as an important moderator.

Eco-friendly materials on purchasing decisions

Duarte et al. (2024) empirically show that perceived effectiveness of eco-friendly packaging materials and consumer confidence that the materials protect the product—significantly

increase purchase intention; consumers value functional parity alongside environmental benefits. Lan (2023) surveyed urban Vietnamese consumers and found that perceived quality, price fairness and perceived environmental effectiveness of eco-friendly packaging materials are strong predictors of intention to buy products packaged with sustainable materials. The study highlights that material claims without quality assurance reduce purchase intention. Shukla et al. (2022) analyze creative packaging design and material cues and report that material-based sustainability signals (e.g., “biodegradable/plant-based”) increase attention and purchase likelihood only when design communicates product protection and value. A beverage-sector study (2024) testing eco-friendly packaging practices (case: Coca-Cola related contexts) found that clear use of sustainable materials increased consumers stated purchase intention again conditional on perceived product quality and price expectations. Filip et al. (2025) examine drivers of eco-product purchase intention and report perceived quality (including packaging material quality) and eco-trust as top predictors: consumers reward genuine use of eco-materials but penalize perceived greenwashing.

Impact of recyclability of packaging on purchase intention

Armutcu et al. (2023) focus on Generation Z’s intentions to buy recyclable products (Turkey) using Theory of Planned Behaviour constructs; attitudes toward recycling and perceived behavioural control significantly predicted recyclable-product purchase intention among Gen Z. The Recycling Partnership / Opinion Works consumer labelling research (2023) demonstrates consumers’ confusion about recyclability claims and shows that clear, standardized recyclability labelling increases consumer trust and the likelihood they will choose recyclable-packaged products. Nguyen et al. (2025) find that visible recycling signs and high-quality arguments about recyclability on packaging positively influence in-store recycling-and-purchase behaviours; communicating end-of-life pathways (how packaging is recycled) increases consumers’ willingness to buy. Ollitervo et al. (2025) experimentally test eco-labels and packaging material and find that eco-labels can raise purchase intention, but only if labelling is credible mere labels without material congruence have limited effect. This points to the interaction between label and actual recyclability. Duarte (2024) also reports that perceived recyclability (a sub-component of perceived eco-friendliness) mediates the link between packaging cues and purchase intention—consumers mentally trade off convenience and environmental benefit when deciding.

Reusability of packaging and its influence on purchasing decisions

Miao et al. (2023) examines consumer intentions toward reusable packaging systems and find a strong stated preference for reusable packaging but a large gap between stated willingness and actual uptake convenience, perceived hygiene, and return logistics are major barriers. Wang et al. (2025) study acceptance of reusable express packaging and show that convenience, ease of return, and trust in the reuse system predict reuse adoption and that willingness to purchase increases when reuse systems are seamless. Ramadhanti et al. (2024) on circular packaging report that refillable and reusable packaging options raise purchase intention among younger consumers when combined with incentives or clear environmental benefit messaging. Practical industry/field studies (e.g., consumer pilots summarized in Duarte 2024 and several case reports) highlight that reusability increases brand loyalty and purchase frequency when logistical friction is low and perceived hygiene/quality are assured.

Minimalist packaging and its effect on purchasing decisions

Ding (2024) finds that minimalist packaging aesthetics foster green trust in FMCG products: simpler, clean designs often communicate authenticity and environmental responsibility and can increase purchase intention especially for consumers who value sustainability signalling.

Shukla et al. (2022) show that creative packaging design—including minimalist approaches affects attention, recognition and purchase likelihood, but minimalist design only boosts purchase intention when accompanied by clear sustainability cues (materials/labels).

Objectives

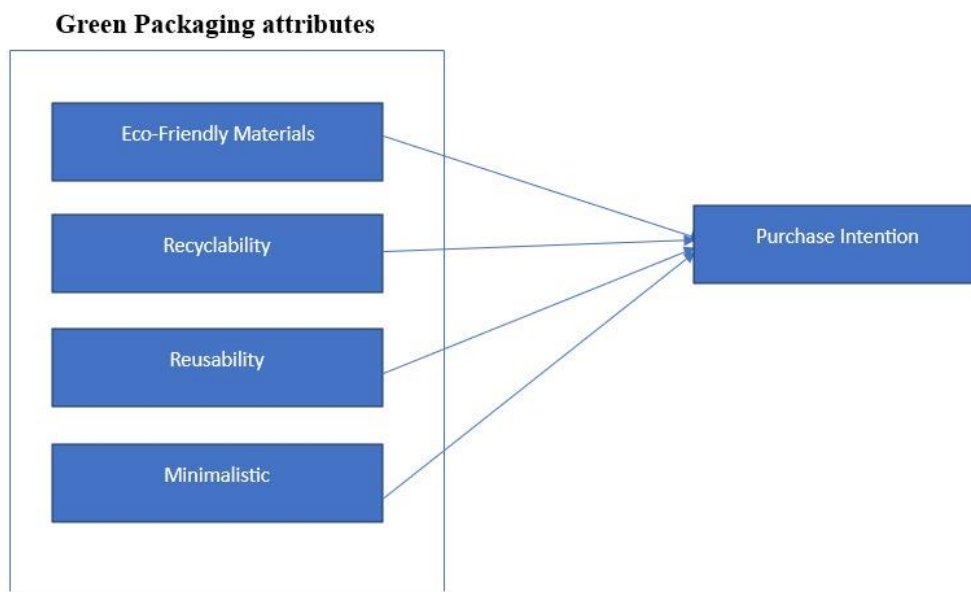
Primary Objective

To examine the impact of green packaging attributes on the purchase intention of Generation Z consumers.

Secondary Objectives

- 1 To analyse the effect of eco-friendly materials on the purchase intention of Gen Z consumers.
- 2 To assess how recyclability of packaging influences Gen Z purchase intention.
- 3 To examine the role of reusable packaging in shaping the purchase intention of Gen Z.
- 4 To evaluate the influence of minimalistic or reduced packaging on the purchase intention of Gen Z consumers.
- 5 To identify which green packaging attribute has the strongest influence on Gen Z purchase intention.

Conceptual Framework



Methodology

The study will adopt a quantitative, cross-sectional research design using a structured questionnaire to examine how eco-friendly packaging materials, recyclability, reusability, and minimalistic packaging influence the purchase intention of Gen Z consumers. Gen Z individuals (born between 1997–2012) who have purchased packaged consumer goods in the

past year will form the target population, and respondents will be selected through purposive and convenience sampling using online platforms such as university networks and social media groups. The tools used are Correlation and regression analysis.

Hypothesis

H10: Eco-friendly materials used in packaging have a positive and significant effect on the purchase intention of Gen Z consumers.

H11: Eco-friendly materials used in packaging have a Negative and non-significant effect on the purchase intention of Gen Z consumers.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.712	.402		4.259	.000
B5	.503	.120	.502	4.182	.000

a. Dependent Variable: Pi5

Inference: Based on the regression analysis ($\beta = 0.503$, $p = 0.000$), eco-friendly materials have a **positive and significant effect** on the purchase intention of Gen Z consumers

Recyclability → Purchase Intention

H20: Recyclable packaging has a positive and significant influence on the purchase intention of Gen Z consumers.

H21: Recyclable packaging has a Negative and non-significant influence on the purchase intention of Gen Z consumers.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.684	.357		4.718	.000
B5	.571	.107	.595	5.341	.000

a. Dependent Variable: R5

Inference: Recyclability has a **strong, positive, and significant influence** on the purchase intention of Gen Z consumers

Reusability → Purchase Intention

H30: Reusable packaging has a positive and significant impact on the purchase intention of Gen Z consumers.

H31: Reusable packaging has a Negative and non-significant impact on the purchase intention of Gen Z consumers

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.335	.307		4.352	.000
B5	.623	.092	.685	6.782	.000

a. Dependent Variable: Re5

Inference : Reusability has a **very strong, positive, and statistically significant** impact on the purchase intention of Gen Z consumers

Minimalistic Packaging → Purchase Intention

H40: Minimalistic or reduced packaging positively and significantly affects the purchase intention of Gen Z consumers.

H41: Minimalistic or reduced packaging negatively and insignificantly affects the purchase intention of Gen Z consumers

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.335	.307		4.352	.000
1 B5	.623	.092	.685	6.782	.000

a. Dependent Variable: Re5

Inference : Minimalistic or reduced packaging has a **very strong, positive, and statistically significant** effect on the purchase intention of Gen Z consumers

Green package on Purchase intention

H50: green packaging attribute has the strongest influence on Gen Z purchase intention.

H51: green packaging attribute has the weakest influence on Gen Z purchase intention.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.166	.323		.513	.610
B5	-.083	.110	-.083	-.758	.452
R5	-.045	.158	-.043	-.285	.777
Re5	.413	.169	.375	2.443	.018
Mi5	.686	.115	.649	5.968	.000

a. Dependent Variable: Pi5

Inference: minimalistic packaging is the strongest predictor of Gen Z purchase i

Findings

All four green packaging attributes individually have positive and significant effects on purchase intention.

In the combined model, minimalistic packaging emerges as the most influential factor, followed by reusability.

Eco-friendly materials and recyclability are not significant when all attributes are tested together, indicating that Gen Z places the highest value on simplicity and reusability in packaging.

Scope for further research

This research to a large extent uncovers the influence of environmental-friendly packaging on the purchase decision of Generation Z and it has a list of unexplored questions that can be addressed in the further research. At first, the paper examines only four different features of the products - the environmental-friendly materials, the products that can be recycled, the products that can be reused, and the products with the minimalistic packaging. Next, the current research project only involves Generation Z respondents. Future Scholars may widen the research. Also, the researchers have depended on a quantitative, self-reported questionnaire for the current study. The next research may use a combination of methods or even a fully qualitative approach, such as interviews or focus groups to explore the deep motivations and beliefs of the consumers about the use of sustainable packaging. Lastly, upcoming projects might investigate how brand loyalty, repeat purchase behavior, and willingness to pay a premium are influenced by sustainable packaging over time. The use of evolving analytical techniques, for example,

structural equation modeling (SEM), can enhance the comprehension of patterns of green consumption.

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