



Name of Publisher: GO GREEN RESEARCH AND EDUCATION

Review Type: Double Blind Peer Review

Area of Publication: Business, Management and Accounting (miscellaneous)



Journal of Business and Management Research
Online ISSN Print ISSN

2958-5074

2958-5066

Vol. 4, issue.1,2025

The Impact of Green Marketing on Brand Equity

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Abstract

This study explores the relationship between excessive product packaging and green brand equity, aiming to understand how consumer perceptions of packaging practices influence their assessment of a brand's environmental credibility. Employing a robust quantitative methodology, the research integrates the Theory of Planned Behavior and Green Marketing theories to frame its conceptual foundation. Data were collected from 400 respondents using structured questionnaires, and regression analysis revealed a significant positive relationship between excessive product packaging and green brand equity. The findings suggest that while excessive packaging may appear counterintuitive in promoting sustainability, it can enhance green brand equity when perceived as innovative or premium. These results offer valuable insights for businesses, emphasizing the importance of strategic packaging decisions to strengthen brand reputation in an environmentally conscious market. This study contributes to the literature by providing empirical evidence on the complex interplay between consumer behavior, sustainable practices, and branding, paving the way for future research in green marketing and sustainable business strategies.

Keywords: Excessive Product Packaging, Green Marketing, Green Brand Equity, Pakistan.

Introduction

Environmental concerns are escalating at an unprecedented rate worldwide, and the detrimental effects of human actions on the environment have reached critical levels. These impacts manifest through major global challenges such as ecological imbalances, the greenhouse effect, and severe air pollution (Cao et al., 2021). These issues highlight the urgent need for sustainable practices and heightened environmental awareness among both individuals and organizations. As the gravity of these environmental problems becomes more apparent, there has been a noticeable shift in consumer behavior toward eco-friendly alternatives. Consumers increasingly recognize the potential of green goods and services to mitigate environmental issues. This shift is not only driven by the immediate need to address environmental concerns but also by a growing sense of responsibility toward ensuring a sustainable future for subsequent generations.

The increased sensitivity among consumers toward environmental issues has been a catalyst for the rise of sophisticated green marketing practices. These marketing efforts are strategically designed to appeal to environmentally conscious consumers by emphasizing sustainability and eco-friendliness in products and services. The underlying consumer concerns stem from unsustainable resource consumption, inadequate waste management systems, and the looming threat of climate change, all of which have far-reaching consequences. Many consumers express genuine worry about the adverse effects these environmental hazards might have on future generations. This collective awareness has fueled a significant transformation in consumer preferences, with a growing number of individuals demonstrating a strong inclination toward eco-friendly products.

Eco-friendly items, often marketed as environmentally beneficial, have become the focal point of consumer interest. This trend reflects a broader societal movement toward environmental conservation and sustainability. Products that align with these values, such as hairspray free from chlorofluorocarbons (CFCs) or unbleached coffee filters, are becoming more desirable. These seemingly small choices contribute to larger environmental goals by reducing harmful emissions and minimizing waste. Establishing and maintaining meaningful relationships with environmentally conscious consumers has emerged as a key priority for businesses. This requires not only an understanding of consumer values but also a commitment to long-term strategic planning that aligns with these values.

One critical aspect of this shift toward sustainability is the role of product packaging, which has significant environmental implications. Packaging, while necessary for protecting and marketing products, often contributes to environmental degradation in numerous ways. Excessive packaging exacerbates these issues, leading to unsustainable outcomes. For instance, the exploitation of renewable and non-renewable resources for packaging materials results in land degradation and resource depletion. Additionally, the energy consumption required for packaging production contributes to greenhouse gas emissions, further intensifying global warming. Other environmental repercussions include air and water pollution, as well as the proliferation of litter and waste that strain waste management systems (Lee & Suh, 2022).

As awareness of these environmental challenges grows, consumers are becoming increasingly cognizant of how their purchasing habits impact the planet. This awareness has sparked a shift in consumer behavior, where sustainability now plays a critical role in purchasing decisions. Shoppers are actively seeking products and brands that prioritize sustainability and align with their environmental values. For

example, many consumers now consider eco-friendly packaging options as a deciding factor when selecting products. Such packaging not only reduces environmental harm but also symbolizes a brand's commitment to sustainability, fostering trust and loyalty among eco-conscious consumers.

The demand for eco-friendly products and packaging has surged in response to the global movement for environmental conservation. This movement has gained momentum as more people recognize the urgency of addressing environmental issues. As a result, the concept of "eco- friendliness" has become more than a trend; it represents a fundamental shift in societal values and priorities. Consumers increasingly view eco-friendly packaging as a way to balance economic prosperity with environmental preservation. By opting for products with sustainable packaging, consumers can actively participate in reducing waste and conserving resources while still enjoying the convenience and functionality of packaged goods (Parris & Guzman, 2023).

Businesses, in turn, are compelled to innovate and adapt to these changing consumer preferences. Companies are investing in research and development to create packaging solutions that are both sustainable and appealing to consumers. For instance, lightweight packaging designs that minimize material usage while maintaining durability and aesthetic appeal are gaining popularity. Such innovations not only reduce environmental impact but also align with consumer expectations for environmentally responsible practices. Additionally, businesses are leveraging green marketing strategies to communicate their sustainability efforts, emphasizing their role in addressing environmental concerns and meeting the needs of eco-conscious consumers.

In conclusion, the rising environmental concerns and their associated challenges have led to a transformative shift in consumer behavior and business practices. The increasing popularity of green goods and services reflects a growing commitment to sustainability and environmental preservation. Excessive packaging, while a significant environmental issue, also presents opportunities for businesses to innovate and strengthen their sustainability credentials. By addressing these challenges through eco-friendly packaging and strategic green marketing, businesses can not only meet consumer demands but also contribute to broader environmental goals. This dynamic interplay between consumer behavior, environmental awareness, and corporate responsibility underscores the importance of sustainability as a driving

force for change in the global marketplace.

Literature Review

In the late '80s, "green marketing" gained traction. Since its early appearance, it has gone through a tremendous metamorphosis (Ahmed et al., 2023). "Green marketing" refers to advertising products and services to reduce or eliminate negative environmental impacts. These actions aim tochange how a company does things inside (Al-Hakimi et al., 2022). Modifications to the products and services and their production methods, packaging, and advertising are just a few examples. Green marketing is defined by Welford (2019) as an approach to management that sustainably prioritizes and serves the demands and requirements of consumers and society. Furthermore, green marketing's importance is defined by its capacity to advertise what others see as ecologically safe items and services (Alamsyah et al., 2020).

Excessive Product Packaging

Companies might save even more money on packaging if they stopped using needless raw materials and reduced their packaging use. Researchers have also looked at the problem of overpackaging from the perspective of consumers, with the premise that there should be no correlation between the quality of a product and its packing. Although there is no universally accepted definition of "excessive packaging," Chen et al. (2017) discussed several features that fall under this category, including, but not limited to, excessively heavy, too big, or expensive packaging. According to Lin et al. (2013), however, consumer demand is the most critical component impacting the development of environmentally friendly products and the success of businesses. There is considerable evidence that indicates a favorable association between green product innovation and company performance.

The significance of packingis highlighted by global commerce and diverse regional consumption preferences. Products spend more time in transit while still in their outer packaging due to the increased distances between the place of production and the point of consumption caused by many companies' expansion into foreign markets compared to their previous trading in domestic markets (Jahre and Hatteland, 2014). Because of this, export enterprises must employ adequate packing to reduce productdamage and, eventually, to prevent stockouts when needed. To drive home the point that stockoutsare related to packaging, it's important to note that consumers may avoid making purchases or look for the product elsewhere if it's out of stock, even

though the penalty for manufacturers and retailers is never stable and depends on numerous factors (product type, consumption habits, etc.) (Ngah et al., 2021). This study aims to address the problem of overpackaging from two angles: first, by developing a more sustainable and lightweight final product, and second, while preservingthe packaging's qualities concerning product protection and providing (Park & Namkung, 2022).

The Concept of Green Brand Equity

The idea behind "Green Brand Equity" is that consumers will have a more positive impression of a company's name when it caters to their environmental concerns. The recent meteoric rise in sales of eco-friendly goods and the fact that many consumersare prepared to pay a premium for these items lend credence to this premise and demonstrate its significance (Chen 2010). According to Aaker's (1996) Brand Equity definition, Green Brand Equity is a collection of assetsand liabilities about environmental concerns and green commitments associated with a brand, its name, and its symbol that either increase or decrease the value that a product or service offers. A good indicator of Green Brand Equity is the degree to which consumers are prepared to pay a premium for a brand's environmental initiatives over competing items that meet or exceed their expectations in all other respects. Strong Green Brand Equity allows a company to anticipate consumer preference for its brand over rivals', even when those competitors make identicalenvironmental pledges (Lacap et al., 2021). The degree to which consumers have faith in a company's environmental initiatives can be determined by how consistently they perceive the company to deliver on its environmental promises and commitments, how convincing the company's environmental arguments are, how well the company addresses their environmental concerns, and how much faith they have in the company's overall environmental credibility (Salehzadeh et al., 2023).

Theoretical Underpinning Brand Equity Theory

According to David A. Aaker (2019), Brand Equity Theory states that customers' perceptions, attitudes, and actions determine a brand's worth. This theoretical framework states that brand equity is created based on brand awareness, perceived quality, brand associations, and brand loyalty. The notion states that high brand equity boosts a brand's market position and competitive advantage, affecting customer decisions and brand value (Arasli et al., 2021; Awan et al., 2023). This study aims to determine how much excessive product packaging (EPP) affects the equity of firms

concerned about the environment (Gong et al., 2021). The research is built around the Theory of Brand Equity to accomplish its aims. EPP's changing consumers' views and sentiments affect the brand's equity.

Theory of Planned Behavior

Ice Ajzen and Martin Fishbein's Theories of Planned Behavior (TPB) and Theory of Reasoned Action (TRA) explain how attitudes, subjective standards, and perceived behavioral control affecthuman behavior (Hameed et al., 2021). Both ideas help explain how people act on their assessments and beliefs. These theories help explain how environmental marketing strategies alter customer attitudes and perceptions in this research on excessive product packaging (EPP) and green brand equity.

Research Objectives

To investigate the effect of excessive product packaging (EPP) on green brand equity.

Methodology

This study has employed data collection techniques such as online questionnaires (Chang & Chen, 2013; Leonidou &Skarmeas, 2015) to gather relevant information from respondents. The sampling method chosen for the study is convenience sampling. Population and Sampling method.

This study is based on Pakistan's fashion industry. The population of this research study includes all users of textile/fashion wear products in Pakistan. The customers of the entire textile/fashion wear industry are well aware of various products offered by multiple firms in Pakistan. The questionnaire was served to 700 customers who frequently purchase textile/fashion wear products in these cities. Out of 700 questionnaires served, the returned and corrected responses were found to be 500 questionnaires/observations. All these customers were identified through the social media platforms of all the mentioned textile mills in Pakistan. Data was collected by hiring services of a consultancy firm named Gandhara Education and Research Consultants (www.gernc.com). The clear instructions, ease of understanding, and personal reach to textile/fashion wear industrycustomers ensured a 71% response rate. This high response rate helped reduce response bias (Malhotra, 2020) and also improved external validity (Blair and Zinkhan, 2006).

Regression Coefficients

Model	Unstandardized				
	Coefficients	Standard Error	t-value	Sig. value)	(p-
Constant (Intercept)	1.2746	0.084	15.256	< 0.001	
Excessive	0.6351	0.037	17.357	< 0.001	
duct	0.0331	0.037	17.337	. 0.001	

Packaging

The regression analysis provides several valuable insights into the relationship between Excessive Product Packaging, which serves as the independent variable, and Green Brand Equity, the dependent variable in this study. Starting with the constant, also known as the intercept, the value of 1.2746 holds significance within the regression equation. The intercept represents the expected level of Green Brand Equity when the value of Excessive Product Packaging is zero. While this situation—having a value of zero for Excessive Product Packaging—might not be practically realistic in real-world scenarios, the intercept remains a foundational component of the regression model. Its primary purpose is to anchor the regression equation and ensure the line of best fit properly captures the data's overall trend and positioning. Without the intercept, the model would be unable to represent the relationship accurately. In social science research, such foundational elements are critical for ensuring the theoretical and statistical soundness of the model (Field, 2017).

Moving on to the coefficient for the independent variable, Excessive Product Packaging, the value of 0.6351 is both statistically and practically significant. This coefficient quantifies the strength and direction of the relationship between the independent and dependent variables. In this context, a positive coefficient signifies a direct, positive relationship between Excessive Product Packaging and Green Brand Equity. Specifically, for every one-unit increase in Excessive Product Packaging, the Green Brand Equity is expected to increase by 0.6351 units. This suggests that consumer perceptions of excessive packaging positively influence how they view a brand's green equity. While the term "excessive" may initially seem to carry a negative connotation, these results may imply that consumers associate certain forms of packaging with innovation, quality, or even sustainability when the packaging is perceived as thoughtful, premium, or environmentally conscious (Hair et al., 2019).

To delve deeper into the statistical reliability of this relationship, the model's significance is highlighted by the associated p-value, which is less than 0.001. This exceptionally low p-value provides robust evidence to reject the null hypothesis, which would state that Excessive Product Packaging has no impact on Green Brand Equity. Instead, the results strongly affirm the alternative hypothesis, suggesting that the relationship between the two variables is not only present but also statistically significant. In statistical terms, a p-value below 0.05 is generally considered significant; therefore, a value below 0.001 underscores an even higher level of confidence in the findings (Cohen, 1988).

Further evidence of the statistical strength of this relationship is provided by the t-value, which is calculated at 17.357. The t-value measures how many standard errors the coefficient is away from zero. A high t-value, like the one observed here, indicates that the independent variable is a strong predictor of the dependent variable. For reference, in most statistical analyses, a t-value exceeding

1.96 at a 95% confidence interval is considered statistically significant (Tabachnick & Fidell, 2013). Here, the t-value of 17.357 far surpasses this threshold, confirming the strength and reliability of the relationship.

Moreover, the standard error associated with the coefficient is 0.037. This value reflects the degree of variability in the coefficient estimate and serves as a measure of the precision of the estimate. A smaller standard error indicates greater precision, meaning that the coefficient is likely to remain consistent across different samples or replications of the study. In this case, the relatively low standard error of 0.037 suggests that the observed relationship between Excessive Product Packaging and Green Brand Equity is stable and reliable. Such precision is particularly important in regression models, as it enhances confidence in the generalizability of the results to broader contexts or populations (Field, 2017).

Together, these statistics—the coefficient, p-value, t-value, and standard error—paint a comprehensive picture of the relationship between the variables. The findings confirm not only the presence of a relationship but also its practical and statistical significance. The positive coefficient suggests that brands employing certain forms of packaging perceived as excessive may inadvertently enhance their green brand equity. This phenomenon may be attributable to consumer interpretations of such packaging as indicative of premium quality, innovation, or sustainability, despite the seemingly contradictory nature of the term "excessive."

From a theoretical perspective, these results contribute to the growing body of literature on green marketing and consumer behavior. They underscore the nuanced ways in which consumers evaluate and respond to branding and packaging efforts. While traditional views may suggest that excessive packaging is inherently negative, this study reveals that consumer perceptions are multifaceted and context-dependent. Brands that leverage thoughtful, strategic packaging designs can enhance their reputation and green equity, even when the packaging may appear excessive in certain respects.

In practical terms, the findings offer actionable insights for businesses aiming to strengthen their Green Brand Equity. Companies should carefully consider how their packaging practices influence consumer perceptions, recognizing that innovative or aesthetically appealing packaging can serve as a powerful tool for enhancing brand image. At the same time, businesses should remain mindful of the broader environmental implications of their packaging decisions, striving to balance consumer appeal with genuine sustainability efforts.

Ultimately, the regression analysis highlights the complex interplay between consumer behavior, branding, and environmental considerations. The results provide strong evidence of the positive impact of Excessive Product Packaging on Green Brand Equity, offering valuable implications for both theory and practice. By leveraging these insights, businesses and researchers alike can further explore the dynamics of green marketing and sustainable branding strategies.

Model Summary

Metric	Value
R-squared	0.375
Adjusted R-squared	0.374
F-statistic	301.3
Prob(F-statistic)	3.31e-53
Durbin-Watson	1.500

The regression model's performance provides meaningful insights into the relationship between Excessive Product Packaging and Green Brand Equity. The R-

squared value of 0.375 indicates that 37.5% of the variability in Green Brand Equity can be attributed to the independent variable, Excessive Product Packaging. In the context of social science research, this value is substantial because dependent variables in such studies are often influenced by a wide range of factors beyond the immediate scope of the model (Cohen, 1988). This suggests that while Excessive Product Packaging plays a notable role in shaping Green Brand Equity, other factors may also contribute to the unexplained variance, providing opportunities for future research to explore these additional influences.

The Adjusted R-squared value of 0.374, which corrects for the number of predictors in the model, aligns closely with the standard R-squared value. This minimal difference underscores the appropriateness and robustness of the model, particularly since it includes only one independent variable. The adjusted metric further affirms the reliability of the model in capturing the relationship between Excessive Product Packaging and Green Brand Equity (Field, 2017).

The F-statistic value of 301.3 further supports the model's validity. The F-statistic tests whether the overall regression model is statistically significant, meaning it fits the data better than a model with no predictors. The highly significant p-value of 3.31e-53 associated with the F-statistic strongly rejects the null hypothesis, which posits that the model does not explain the variance in the dependent variable. This finding confirms that Excessive Product Packaging is a meaningful predictor of Green Brand Equity and reinforces the strength of their relationship (Hair et al., 2019). Another important metric is the Durbin-Watson statistic, calculated as 1.500 in this model. The Durbin-Watson test assesses the presence of autocorrelation in the residuals of the regression model. A value close to 2 indicates little to no autocorrelation, while values significantly below or above 2 suggest potential issues with the model. The value of 1.500 suggests mild autocorrelation, but it remains within an acceptable range, ensuring the validity of the regression results (Tabachnick & Fidell, 2013).

From a broader perspective, these findings confirm a positive and statistically significant relationship between Excessive Product Packaging and Green Brand Equity. The positive coefficient for Excessive Product Packaging indicates that increases in this variable are associated with corresponding increases in Green Brand Equity. This relationship could be explained by consumer perceptions of packaging as an indicator of a brand's commitment to quality, innovation, or sustainability. While

the term "excessive" might conventionally imply waste or inefficiency, in certain contexts, consumers may interpret it as thoughtful design or premium presentation. These associations could contribute to enhanced perceptions of a brand's green equity, suggesting that packaging, when strategically employed, has the potential to positively influence consumer attitudes and behaviors.

The practical implications of this study are significant for businesses. Companies aiming to enhance their Green Brand Equity should consider the nuanced ways in which packaging decisions influence consumer perceptions. By implementing strategic packaging practices that balance sustainability with consumer appeal, businesses can not only meet environmental goals but also strengthen their brand image. For example, innovative packaging designs that reduce environmental impact while maintaining aesthetic appeal could resonate with environmentally conscious consumers and improve overall brand perception.

Finally, the combination of statistical significance, high R-squared values, and a robust F-statistic highlights the reliability of these findings. The low p-value and strong F-statistic suggest that the observed relationship is unlikely to have occurred by chance, providing robust evidence to support the hypothesis that Excessive Product Packaging positively impacts Green Brand Equity. These insights are not only valuable for academic exploration but also provide a practical framework for businesses seeking to align their packaging strategies with evolving consumer expectations and sustainability objectives.

Limitations of the Study

Several specific limitations of this study must be acknowledged, particularly regarding the relationship between Excessive Product Packaging and Green Brand Equity, as they may influence the interpretation and generalizability of the findings. First, the study's sample was restricted to a specific demographic and market segment, which may not fully represent broader consumer populations. This limitation poses challenges to generalizing the results across diverse markets, where consumer perceptions of excessive packaging and its impact on brand equity may differ.

Second, the study employed a cross-sectional research design, capturing data at a single point in time. While this approach provides valuable insights into the current state of consumer perceptions, it limits the ability to establish causal relationships between excessive product packaging and green brand equity. The long-term effects of packaging practices on brand equity remain unexplored, and future

research could adopt longitudinal designs to examine how consumer attitudes evolve over time.

Third, the definition and measurement of excessive product packaging present a challenge. Variability in how excessive packaging is perceived—ranging from wasteful and environmentally harmful to premium and innovative—might have influenced the findings. These subjective interpretations could limit the comparability of this study's results with those of other research on green branding.

Additionally, this study did not account for external factors such as industry norms, competitive pressures, or evolving consumer trends, which may shape how excessive packaging impacts perceptions of green brand equity. Incorporating these contextual factors in future studies could provide a more nuanced understanding of the dynamics between packaging practices and brand equity.

Lastly, the study's geographic and cultural scope may limit the broader applicability of the findings. Consumer attitudes toward excessive packaging and its influence on green brand equity may vary significantly across different cultural and economic contexts. Future research should explore these variables in diverse settings to enhance the generalizability and depth of insights. By addressing these limitations, subsequent studies can provide a more comprehensive and nuanced understanding of the interplay between excessive product packaging and green brand equity.

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