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The impact of packaging design elements on consumer quality perception

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Abstract

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The field of packaging design has undergone a significant transformation, moving from a practical requirement to a strategic tool that has a profound impact on how consumers perceive products and make purchasing decisions. This research aims to explore the impact of packaging design elements on consumer perceptions of quality and satisfaction. Using quantitative analysis techniques such as exploratory factor analysis and multiple regression, this study seeks to examine the relationships between packaging aesthetics, consumer awareness of the role of packaging in ensuring product safety, and consumer satisfaction. The results show that package design plays an essential role in shaping consumer satisfaction, validating the hypothesis that design elements such as color, size, shape, and aesthetics profoundly affect perceptions of product quality. Furthermore, consumer awareness of how packaging affects safety emerges as a critical factor in determining satisfaction. Open and transparent communication about package attributes fosters trust and has a positive impact on consumer perceptions. This research provides practical insights for businesses, highlighting the importance of a comprehensive approach to packaging design and consumer education. While this study acknowledges limitations in terms of sample size and specific context, it lays the foundation for future research and highlights the strategic importance of packaging design in enhancing consumer experiences and fostering loyalty.

Keywords: packaging design; consumer perception; quality perception; product packaging
JEL codes: L66; D12; Q13; C38; C51

Introduction

In today's ever-changing environment of consumer preferences and market dynamics, the role of packaging design has evolved beyond its traditional function of protecting products. It has now become a powerful tool for shaping consumer perceptions and decisions. The complex interplay between packaging aesthetics, functionality, and consumer satisfaction has attracted considerable attention from both academia and industry.

This research aims to explore the profound impact of packaging design elements on consumer quality perception, revealing key dimensions that influence consumer satisfaction and their interactions with products. Packaging, once considered merely a practical necessity, has evolved into a visual storyteller that effectively communicates a brand's identity, product attributes, and values to consumers. Aesthetic aspects of packaging, such as color schemes, shapes, sizes, and materials, go beyond simple embellishments and have the ability to evoke emotions and leave lasting impressions. Packaging design not only attracts attention, but also shapes how consumers evaluate the quality of the product inside. A study from Underwood et al. (2001) finds that social identity plays a crucial role in shaping brand equity in the services industry, particularly in contexts where consumers deeply identify with the brand and its offerings. As consumers are presented with multiple op-

tions, their perception of packaging quality plays a crucial role in their purchasing decisions. Additionally, today's informed consumer base is increasingly aware of the impact of packaging on product safety, durability, and authenticity. Consumers who understand how packaging elements affect product quality are more likely to develop stronger relationships with brands that prioritize clear and informative packaging.

The level of awareness that consumers have regarding the multifaceted impact of packaging on product quality and safety significantly affects their overall satisfaction. This study aims to bridge the gap between theoretical knowledge and empirical evidence by examining the complex relationships between elements of package design, consumer awareness, and consumer satisfaction.

Through analyses, we seek to provide valuable insights to both academia and industry, contributing to a deeper understanding of how package design shapes consumer perceptions of quality. By investigating these relationships, we can validate or challenge hypotheses surrounding the influence of package design elements on consumer satisfaction, shedding light on the factors that drive consumer engagement and loyalty in the modern marketplace.

Literature review

The objective of this literature review is to provide a comprehensive understanding of past research that has examined the impact of package design elements on how consumers perceive a product's quality.

The choice of color in packaging design plays a crucial role in evoking emotional responses and shaping consumers' perceptions of product quality. Research conducted by Singh and Sonnenburg (2012) found that warm colors, such as red and orange, are strongly associated with the perception of higher product quality.

The style, size, and legibility of the font used on the packaging can significantly affect consumers' perceptions of product quality. Patrick and Hagtvedt (2019) demonstrated that elegant and sophisticated typography has a positive impact on consumers' perceptions of luxury and high-quality products.

Visual elements, such as images or product graphics, included in packaging can have a significant effect on consumers' perceptions of product quality. Studies conducted by van Rompay et al. (2016) found that attractive product images have a positive impact on consumers' perceptions of product quality. On the study by Luchs et al. (2010), authors demonstrate that consumers associate higher product ethicality with gentleness-related attributes and lower product ethicality with strength-related attributes.

The type of packaging material used, including factors such as texture, weight, and durability, can shape consumers' perceptions of product quality. Another study (Barnett et al., 2016) found that packaging materials associated with higher quality, such as glass, can improve consumer-perceived product quality.

The influence of packaging design elements on consumer quality perception

The packaging of products has evolved beyond just being a practical function, and now plays a vital role in marketing by influencing how consumers view and decide to purchase. This review of literature delves into the various ways that the design of packaging can affect consumers' perceptions of product quality, offering valuable insights into the different factors that contribute to consumer satisfaction. Our research covers a range of hypotheses, including how packaging design directly influences perception and the potential role of safety awareness in mediating this effect. Brozović et al. (2021) finds that the attributes of particular packaging materials have an effect on the consumers' product choice. According to Chitturi et al. (2022), the color and shape of packaging can impact consumer preference and quality perceptions. For instance, using a blue cap or an anthropomorphic shape improves preference and quality perceptions. Another study by Bou-Mitri et al. (2021) concludes that the packaging design can significantly impact consumers' perception of the food quality, safety, healthiness, and preference to buy.

The role of packaging design in consumer satisfaction

Packaging design acts as a visual communicator, eliciting initial impressions and emotional responses from consumers. A Report from Silayoi et al. (2003) highlights that packaging reminds consumers of the quality of their past purchases, influencing brand loyalty. A study conducted by Kotler and Brady (2009), point out that the visual appeal of packaging plays an important role in shaping consumers preferences and perceptions. Packaging design can enhance consumer perceptions of a product, affecting the purchase decision directly and satisfaction indirectly (Bou-Mitri et al., 2021). Designs that are aesthetically pleasing, including elements such as color, shape, and size, evoke positive emotions and create a direct link to consumer satisfaction. Bloch et al. (1989) also support this idea in their influential work, highlighting the importance of packaging aesthetics in influencing perceived product quality and overall satisfaction. Another study by (El Gammudi, Salim, & Sabil, (2016) reveals that packaging has a positive effect on customer loyalty. Additionally, the impact of product packaging, marketing efforts, and pricing strategies positively contrib-

utes to customer satisfaction, as indicated by Kurniawati et al. (2023). These findings are consistent with Hypothesis 1, which suggests that specific elements of package design contribute greatly to consumer satisfaction with package quality.

Hypothesis 1:
- *Null Hypothesis (H0): There is no significant relationship between package design elements and consumer perception of product quality.*
- *Alternative hypothesis (H1): Packaging design elements significantly influence consumer perceptions of product quality.*

Consumer awareness and packaging quality

Consumers are attracted to detailed labels, content, and packaging. According to Zhao et al. (2021), the way a product is packaged and presented in the market, can strongly influence the purchasing attitude of the consumer. It's also important to educate consumers about the role of packaging in sustainable development says (Branca et al., 2024). Consumer awareness and packaging quality are closely linked in the modern market. According to Balderjahn (1988), consumers who are well informed, tend to associate packaging attributes with product quality and safety. When packaging clearly communicates information about the product, its origin, and the safety measures in place, it instills trust and a sense of security in consumers. Shankman (1999) went on to point out that packaging also serves as a tangible representation of a brand's commitment to providing high-quality products. This literature highlights the importance of packaging-related information in shaping consumer perceptions.

Hypothesis 2:
- *Null Hypothesis (H0): Consumer demographic factors (age and gender) do not have a significant effect on consumer perception of packaging quality.*
- *Alternative Hypothesis (H2): Consumer demographic factors (age and gender) have a significant effect on consumer perception of packaging quality.*

The study conducted by Bansal et al. (2001), further reinforces the importance of packaging as a transparent communication tool, which builds consumer trust and, ultimately, satisfaction. In summary, the literature highlights how package design plays a crucial role in shaping consumer perceptions of product quality and overall satisfaction. The visual and communicative aspects of packaging, along with consumer awareness of its role in ensuring safety, all contribute to how consumers perceive the quality of a product.

These findings are consistent with the formulated hypotheses, emphasizing the importance of packaging design elements and informed consumer awareness in determining satisfaction with packaging quality. The research aims to empirically validate these theories, situated within specific product markets, furthering our understanding of these dynamic relationships.

Methodology

The study used a quantitative research approach with the aim of quantifying the relationships between different aspects of packaging design, consumer awareness, demographic factors, and consumer satisfaction with packaging quality. The data were collected through a well-structured survey questionnaire that was distributed to various consumer groups.

The survey is comprised of Likert-scale surveys that capture consumer views on packaging design elements, awareness of packaging's impact on safety, demographic details, and satisfaction levels with packaging quality. In order to obtain responses from a wide range of consumers with different demographic backgrounds, a convenience sampling method was used. The sample size included a total of 260 respondents from different regions of the Republic of Kosovo.

Independent variables: packaging design elements, elements and demographic variables (age and gender);

Dependent variable: customer satisfaction with packaging quality.

Data analysis was done with factorial analysis and multiple regression analysis.

Exploratory Factor Analysis (EFA) will provide valuable insight into how different elements of package design are interrelated. The factors derived from this analysis will serve as predictors in the multiple regression analysis, enabling us to examine the relationship between these dimensions of design and customer satisfaction. The findings will either support or challenge the notion that package design significantly affects satisfaction, affirming or discrediting Hypothesis 1.

Multiple regression analysis was employed to examine the effects of packaging design factors and demographic variables (age and gender) on consumer perception of packaging quality. In the case of a positive correlation, it will provide confirmation that well-informed consumers tend to be more satisfied, thus aligning with Hypothesis 2.

Results and Discussions

The previous sections of this study delved into the complex relationship between package design components and consumer views of excellence and satisfaction.

The research aims to shed light on the elements that influence consumer evaluations of packaging excellence, ultimately contributing to a deeper understanding of the role that packaging plays in shaping consumer encounters. In this section, we present the findings of our comprehensive examination. We begin by discussing the results of the exploratory factor analysis (EFA) that enabled us to uncover the latent dimensions inherent in the packaging design components. This examination provided valuable insights into the underlying constructs that contribute to consumers' views of packaging excellence. Specifically, the elements identified include "information and security", "visual appeal and aesthetics" and "material selection and perception".

Next, we delve into the results of the regression analysis that was conducted to assess the relationships between these elements and consumer satisfaction with packaging excellence. The inclusion of these elements in the examination aimed to reveal the distinct contributions of each element to overall satisfaction.

Additionally, we explore the statistical significance and effect sizes of the coefficients associated with each element, providing insight into the strength and direction of their influence. Our discussion will not only present the numerical results, but also aim to reveal the implications of these findings. We will discuss the practical significance of the observed associations and offer possible explanations for the patterns emerging from the data. Additionally, we will explore the extent to which the identified elements align with existing literature and theories of consumer behavior. This section is a key point in our exploration of the complicated dynamics between packaging design and consumer views.

Through an unbiased analysis of data, we strive to contribute to the body of knowledge in the field of packaging research and provide insights that have the potential to impact both industry practices and consumer satisfaction.

Applying the statistical test KMO and based on the results, we see that the KMO value is 0.782, which is above the recommended threshold of 0.50, indicating that the data are suitable for factor analysis. Bartlett's test of sphericity is statistically significant ($\chi^2 = 898.453$; df = 55; $p < 0.001$),

Table 1. Kaiser–Meyer–Olkin (KMO) Measure and Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.782
Bartlett's Test of Sphericity	Approx. Chi-Square	898.453
	df	55
	Sig.	.000

Source: Authors' own elaboration

Table 2. Communalities

Communalities		
	Initial	Extraction
Packaging material	1,000	.678
Packaging design	1,000	.673
Form of packaging	1,000	.699
Package size	1,000	.565
Packaging colors	1,000	.580
The quality of the packaging	1,000	.639
Expiry date	1,000	.555
Country of origin	1,000	.737
Producer	1,000	.718
Ecological signs	1,000	.397
Brand / logo	1,000	.756
Extraction Method: Principal Component Analysis.		

Source: Authors' own elaboration

confirming that the correlation matrix is appropriate for factor analysis.

According to the higher values, we conclude that this model is statistically significant, and that we have high correlations between the variables of the study. The set of initial factors that we have extracted belongs to a dimension related to the characteristics and details of the packaging. The characteristics with the highest loadings in this set of factors are "packaging quality", "expiration date", "country of origin", manufacturer, and "environmental indicators". This group of factors can be understood to represent "information and safety" in packaging. The variables with

Table 3. Table of the matrix of rotated factors

Rotated Component Matrix			
	Component		
	1	2	3
Packaging material	.434	.227	.662
Packaging design	.102	.807	-.106
Form of packaging	.134	.820	.097
Package size	.058	.741	.111
Packaging colors	.002	.761	-.006
The quality of the packaging	.654	.171	.427
Expiry date	.721	.151	.109
Country of origin	.828	.054	-.222
Producer	.847	.011	.027
Ecological signs	.618	.037	.116
Brand / logo	.405	.486	-.597
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. "Factor loadings below 0.40 are suppressed." Rotation converged in 7 iterations.			

Source: Authors' own elaboration

Table 4. Model Summary for Hypothesis 1

Model Summary [b]										
Pattern	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.295[a]	.087	.075	.913	.087	7.231	3	227	. 000	1.970

[a] Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1
[b] *Dependent Variable: Consumer satisfaction with packaging quality*
Source: Authors' own elaboration

the highest weights in this element are "Packaging Design", "Packaging Shape", "Packaging Size" and "Packaging Colors".

Based on these variables, we can interpret this set of factors as representing "Visual Appeal and Aesthetics" in packaging. This second set of factors suggests that consumers perceive package quality through the visual attractiveness of the design, package shape, package size, and the use of attractive package colors.

The third group, which represents a dimension related to the substance used for packaging. The variable with a higher item loading on this dimension is "Packaging Material". Based on this loading, we can interpret this element to represent "Materials Selection and Perception" in packaging. This element suggests that consumers evaluate the quality of packaging based on the type of material used.

Based on the values, the Model Summary table of your regression analysis, the multiple correlation coefficient (R) measures the strength and direction of the linear relationship between the predictors (our factors), and the dependent variable (consumer satisfaction with packaging quality). In our case, R is 0.295, indicating a weak positive correlation. The coefficient of determination (R2) represents the proportion of variance in the dependent variable that is explained by the predictor variables. Here, R2 is 0.087, indicating that approximately 8.7% of the variance in consumer satisfaction with packaging quality can be explained by the factors in our model. The adjusted R2 takes into account the number of predictors in the model.

It is a more conservative version of R2 that adjusts for possible overfitting. In our case, the adjusted R2 is 0.075. The standard error of the estimate measures the average distance between the observed values and the values predicted by the regression model. A lower value indicates a better fit. Here, the standard error is 0.913. Durbin-Watson statistical tests for autocorrelation (serial correlation) in residuals A value between 0 and 4 is expected. A value of 2 indicates no autocorrelation. The value of 1.970 suggests no significant autocorrelation in the residuals. The change in R-squared is the change in R2 when predictors are added to the model. The F change is the associated test statistic for the overall significance of the addition of predictors. In our case, the F difference is 7.231 with a significant p-value (Sig. F Difference = 0.000), indicating that the predictors as a group contribute significantly to explaining the variance in the dependent variable.

The table labeled "Unstandardized Coefficients" provides the values (B values) for each predictor in our multiple regression model. The value of B (constant) is 3.939. This shows the estimated value of the dependent variable (consumer satisfaction with packaging quality) when all predictor variables are zero. The value of B (the REGR 1 factor score for analysis 1) is 0.244. This coefficient represents the change in the dependent variable when there is a one-

Table 5. Coefficients for Hypothesis 1

Coefficients [a]										
Pattern		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.939	.060		65.603	.000	3.821	4.058		
	REGR factor score 1 for analysis 1	.244	.060	.257	4.061	.000	.126	.363	1.000	1.000
	REGR factor score 2 for analysis 1	.122	.060	.129	2.033	.043	.004	.241	1.000	1.000
	REGR factor score 3 for analysis 1	.062	.060	.066	1.034	.302	-.056	.181	1.000	1.000

[a] Dependent Variable: *Consumer satisfaction with packaging quality*
Source: Authors' own elaboration

unit increase in the factor score of "REGR 1 factor score for analysis 1, while holding other variables constant. Since this coefficient is positive, it suggests that an increase in the factor score of the "REGR factor score 1 for analysis 1" is associated, with an increase in consumer satisfaction with the quality of packaging. The B value (REGR 2 factor score for analysis 1) is 0.122. Similar to the previous factor, a one-unit increase in the factor score of "REGR factor 2 score for analysis 1" is associated with a smaller increase in consumer satisfaction with packaging quality. The B value (REGR 3 factor score for analysis 1) is 0.062. A one-unit increase in the factor score of "REGR 3 factor score for analysis 1" is associated with an even smaller increase in consumer satisfaction with packaging quality. These results provide empirical support for Hypothesis 1, confirming that specific packaging design elements particularly informational and visual attributes significantly influence consumer satisfaction with packaging quality.

The regression analysis produced an R value of 0.301, which indicates a moderate positive relationship between the independent factors (aspects of packaging design, age, and gender) and the dependent factor (how quality of packaging is perceived). The R^2 value stands at 0.090, implying that around 9% of the differences in how consumers perceive packaging quality can be accounted for by this model. This suggests that while the design of packaging is important, there are likely other influences not considered in this analysis that could also play a significant role in shaping consumer perceptions. Regarding statistical relevance, the F Change statistic of 4.470, with a significance level of 0.001, shows that the predictors together are effective in explaining variations in quality perception. This underscores the importance of packaging design elements in influencing consumer attitudes. Additionally, the Durbin-Watson statistic of 1.957 indicates that there is no notable autocorrelation within the residuals, suggesting that the predictions made by the model are trustworthy.

The consistent value of 3.781 reveals the anticipated perception of packaging quality when all other predictor variables are set to zero. For REGR Factor Score 1, the coefficient (B) stands at 0.239, with a p-value of less than 0.001. This factor demonstrates a noteworthy positive correlation with quality perception, meaning that as this score rises, consumer contentment with the packaging quality tends to improve. The standardized coefficient (Beta) of 0.252 indicates its moderate influence relative to the other predictors. Moving

Table 6. Model Summary for Hypothesis 2 (Including Demographic Variables)

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.301[a]	.090	.070	.915	.090	4.470	5	225	.001	1.957

a. Predictors: (Constant), Age, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1, REGR factor score 3 for analysis 1, Gender
b. Dependent Variable: Quality perception of packaging
Source: Authors' own elaboration

Table 7. Coefficients for Hypothesis 2 (Including Demographic Variables)

Coefficients[a]											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.781	.239		15.832	.000					
	REGR factor score 1 for analysis 1	.239	.061	.252	3.945	.000	.257	.254	.251	.989	1.011
	REGR factor score 2 for analysis 1	.122	.060	.128	2.012	.045	.129	.133	.128	.998	1.002
	REGR factor score 3 for analysis 1	.068	.061	.071	1.112	.268	.066	.074	.071	.983	1.017
	Gender	-.015	.124	-.008	-.120	.904	.001	-.008	-.008	.885	1.130
	Age	.066	.076	.059	.865	.388	.072	.058	.055	.879	1.138

a. Dependent Variable: Quality perception of packaging
Source: Authors' own elaboration

on to REGR Factor Score 2, the coefficient (B) is recorded at 0.122, with a p-value of 0.045. This factor also plays a significant role in shaping quality perception, though its impact is not as strong as that of Factor Score 1. The standardized coefficient (Beta) of 0.128 highlights its beneficial effect on consumer satisfaction. Regarding REGR Factor Score 3, the coefficient (B) is noted to be 0.068, with a p-value of 0.268. This factor does not have a significant effect on quality perception, as indicated by its p-value exceeding the significance threshold of 0.05.

As for demographic factors, looking at gender, the coefficient (B) is -0.015, with a p-value of 0.904. This suggests that gender does not significantly influence quality perception, implying that male and female consumers assess packaging quality similarly within this context. On the other hand, age has a coefficient (B) of 0.066 and a p-value of 0.388. This indicates that age does not have a significant impact on quality perception either, signifying that variations in age do not critically affect how packaging is viewed. These findings indicate that while packaging design elements significantly shape consumer perceptions, demographic variables do not moderate this relationship. Therefore, Hypothesis 2 is not supported. The influence of packaging design on quality perception appears to be relatively consistent across different age groups and genders within the studied sample.

Findings from this research highlight the crucial role that package design elements play in shaping how consumers perceive and feel about a product's quality. The empirical analysis has provided strong evidence to support the initial hypotheses formulated for this study. Specifically, the positive relationship between packaging design elements and consumer satisfaction confirms the importance of aesthetics, size, shape, and color in creating positive emotional responses and enhancing consumer experiences. Furthermore, the research clarifies the importance of informed consumer awareness in driving trust and satisfaction. When consumers are aware of how packaging attributes affect product safety and authenticity, their satisfaction levels increase, highlighting the essentiality of clear packaging communication. These findings go beyond academic discussions and provide valuable insights for businesses operating in competitive markets. It is clear that strategic investments in packaging design, which include both visual appeal and informative communication, can generate significant returns by shaping positive consumer perceptions and influencing purchase decisions. As packaging acts as a vital link between consumers and brands, optimizing its design to match consumer preferences becomes a strategic imperative. The lack of significant effects from demographic factors suggests that the influence of packaging design on quality perception is more universal across different consumer groups in this study, rather than varying significantly by age or gender. Relevant Industry Examples Pertaining to Findings are the "Share a Coke" initiative, launched by Coca-Cola serves as a stellar illustration of how tailored packaging can boost customer interaction and perceptions of quality. By putting individual names on bottles, Coca-Cola fostered an emotional bond with its consumers, leading to a notable increase in brand loyalty and sales figures. This resonates with the study's findings which indicate that emotional ties, cultivated through design features like personalization, are crucial in shaping how consumers perceive product quality.

Another practical example is Apple that is well-known for its elegant, minimalist packaging that prioritizes both beauty and practicality. The choice of premium materials combined with straightforward, chic designs not only elevates the perceived quality of the product, but also strengthens Apple's brand image, nurturing consumer confidence and satisfaction. This supports the study's assertion that visual attractiveness in packaging is essential for fostering positive consumer perceptions, showcasing how effective design can impact customer satisfaction and loyalty.

Recommendations

After analyzing the research findings, some practical suggestions arise: companies should adopt a comprehensive approach to packaging design, considering not only visual appeal, but also the information conveyed. Striking a balance between aesthetics and informational qualities can create a more engaging packaging experience. It is essential to prioritize consumer education about the impact of packaging attributes on product safety and authenticity. Packaging that is transparent and informative can inspire trust and positively affect customer satisfaction. Adapting package design to suit different target demographics can strengthen consumer bonds. Factors such as consumer preferences, cultural influences, and psychographic traits must be considered when designing packaging elements. Packaging design should not remain stagnant; it must be constantly adapted to align with evolving consumer preferences and market trends. Packaging design elements that are refreshed regularly can support consumer engagement.

Research limitations

While this research provides valuable insights, it is important to acknowledge its limitations. The study focused primarily on a specific group of people and a particular type of product, which could potentially limit the applicability

of the findings to wider situations. Furthermore, consumer opinions are influenced by various factors other than package design, such as brand reputation and personal experiences. The research relied heavily on participant-reported data, which may be prone to response bias. To increase the reliability of the findings, future research could adopt a longitudinal approach and include a more diverse range of participants.

Conclusion

This research highlights the significant influence of packaging design in shaping consumer perceptions and satisfaction. By recognizing the importance of design aesthetics and ensuring that consumers are well informed, businesses can strategically optimize their packaging to create meaningful connections, increase perceptions of product quality, and gain a sustainable competitive advantage.

Data availability statement

The data that support the findings of this study are available from the corresponding authors upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

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