



Packaging Perception: Unveiling Consumer Insights for Brand Success

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Abstract: This study aims to explore the factors influencing consumer perception of product packaging, with a focus on understanding their impact on brand loyalty and differentiation in the competitive marketplace. Through comprehensive analysis, it seeks to identify key elements that drive consumer preferences and purchase decisions. Employing correlation analysis and statistical testing, this research evaluates the significance of various packaging elements such as colour, imagery, shape, and branding position. Data collected from consumer surveys and market research enables a thorough examination of the relationships between these factors and consumer behaviour. The findings indicate that packaging plays a crucial role in shaping brand loyalty and differentiation. Factors like colour, imagery, and brand positioning significantly influence consumer perception and purchasing decisions, highlighting the importance of strategic packaging design in driving brand success. This research offers actionable insights for businesses seeking to optimize their packaging strategies to enhance brand perception,

foster consumer loyalty, and gain a competitive edge in the market. By understanding the nuanced preferences of consumers and leveraging effective packaging elements, companies can create compelling brand experiences that resonate with their target audience.

Keywords: Consumer Perception, Product Packaging, Brand Loyalty

Introduction

In today's fast-paced and competitive global market, the introduction of new products aimed at addressing common consumer needs is a common occurrence. Consumer perception plays a pivotal role in determining the success of a product, influencing its placement and positioning within the market. Packaging, as the first point of contact between consumers and products, serves multiple functions beyond mere containment and protection. It acts as a key element in marketing strategies, communicating product worth and influencing consumer perception. This paper provides an overview of product packaging, including its types, functions, and elements, emphasizing its importance in product positioning and the era of e-commerce.

Packaging serves essential functions such as protection, containment, communication of important information, promotion, convenience, sustainability, transportation, and handling. Moreover, it plays a crucial role in meeting regulations and standards, enhancing

customer retention, and contributing to brand identity and recognition. Different elements of packaging, including materials, labelling, and marketing, contribute to its effectiveness in capturing consumer attention and influencing purchasing decisions.

Consumer behaviour and perception are integral aspects of understanding market dynamics. Consumers interpret and comprehend products based on sensory inputs, cognitive processes, previous experiences, beliefs, attitudes, and expectations. Analysing consumer behaviour and perception provides valuable insights for companies to formulate effective marketing strategies and create user-friendly products that meet consumer needs and preferences. Understanding consumer behaviour also helps identify market opportunities and drive business growth.

At the point of sale, packaging plays a critical role in attracting consumers and influencing purchasing decisions. It serves as a physical embodiment of brand identity, values, and personality, contributing to brand recognition and loyalty. Packaging communicates product information, characteristics, benefits, and usage guidelines, helping consumers make informed choices.

Packaging is a multifaceted component of product marketing and branding, with significant implications for consumer perception, behaviour, and purchasing decisions. Its role extends beyond containment and protection to encompass communication, promotion, convenience, sustainability, and brand identity. Understanding consumer behaviour and perception is essential for businesses to effectively leverage packaging as a strategic tool in the competitive marketplace.

Literature Review

Consumer perceptions of product packaging play a pivotal role in determining the success of a product in the market. Packaging serves as the initial point of contact between consumers and products, influencing their buying decisions and brand preferences (Ampuero & Vila, 2006). The positioning of a product is closely tied to its packaging, encompassing factors such as shape, size, and price in comparison to competitors (Vila & Ampuero, 2006). The design elements of packaging, including materials, symbols, colours, and fonts, significantly impact consumer perception and preferences (Esmaeilpour & Rajabi, 2016).

Furthermore, packaging serves as a medium for conveying product information and building trust with consumers by highlighting benefits, health effects, and environmental considerations (Esmaeilpour & Rajabi, 2016). Colours used in packaging evoke different emotions, influencing consumer perceptions and purchasing decisions (Vila & Ampuero, 2006). Environmentally friendly packaging design enhances consumer perceptions of product quality and sustainability (Esmaeilpour & Rajabi, 2016).

Packaging also plays a crucial role in presenting products favourably to consumers at the point of purchase, influencing impulsive buying behaviour and brand identity (Abdalkrim & AL-Hrezat, 2013). Unique and distinctive packaging designs attract consumers and differentiate products in a competitive market (Lo, Tung, & Huang, 2017).

Additionally, the visual design of packaging significantly affects consumer perceptions of product quality and value (Oluwagbemiga, 2021).

In today's marketing landscape, packaging is recognized as a strategic marketing tool and a means of effective communication with consumers (Simmonds & Spence, 2017). The communicational dimension of packaging influences consumer impressions and perceptions, affecting their purchasing decisions (Draskovic, Temperley, & Pavicic, 2009). Effective package design conveys relevant product information and enhances consumer engagement (M Gloria & Deliza, 2008).

Moreover, packaging design must align with consumer expectations and preferences to ensure optimal commercial success (Simmonds & Spence, 2017). The inclusion and positioning of eco-friendly elements, such as eco marks, significantly influence consumer perceptions of product quality and appeal (Kovačević, Brozović, & Ivanda, 2019). Thus, packaging designers should focus not only on the inclusion of elements but also on their strategic positioning to appeal to consumers effectively.

Research on product packaging design highlights the significance of cultural factors, shape, storytelling, integrated marketing communication (IMC), consumer preferences, and the unboxing experience in influencing consumer perceptions and purchase decisions.

Ploom et al. (2020) emphasize the importance of understanding cultural values and norms in designing product packaging across different countries. Cultural alignment enhances the success of products in the market, with symbols and imagery playing a crucial role in attracting consumers. Chitturi et al. (2022) discuss the impact of colours, shapes, and forms on consumer perceptions. Rounded shapes are preferred over sharp and angular ones, influencing visual volume judgments and purchase decisions.

Dobson and Yadav (2012) highlight packaging's role in gaining shelf space and attracting customers in retail outlets. Packaging serves as a voice for products, competing for attention on store shelves. Agariya et al. (2012) emphasize storytelling through packaging to communicate brand values, history, and ambitions, fostering emotional connections and brand loyalty.

Kitchen and Burgmann (2010) underscore the role of integrated marketing communication (IMC) in providing consistent brand messages through packaging. Packaging serves as a tangible touchpoint for brand identification and messaging, contributing to brand memory and consumer perception. Polyakova (2013) emphasizes customer preferences and purchasing decisions as key factors driving packaging design.

Holmes and Paswan (2012) discuss how packaging influences consumer reactions and product ratings, serving as an integral part of the core product. Bae et al. (2019) highlight the importance of the unboxing experience in shaping consumer perceptions. Thoughtful packaging design enhances the visual appeal and uniqueness of products.

Thorsén (2018) explores packaging design for e-commerce, focusing on easy handling and creating a positive unboxing experience. Tangible aspects of packaging, alongside visual elements, influence online consumer perception. Van den Berg-Weitzel and Van de Laar (2001) discuss the localization versus globalization dilemma in packaging design.

Adapting packaging to local tastes yields better results, considering cultural factors' impact on consumer perceptions.

Research on product packaging design underscores the multifaceted role of packaging in influencing consumer perceptions and purchase decisions. Cultural factors, shape, storytelling, IMC, consumer preferences, and the unboxing experience all contribute to packaging's effectiveness in conveying brand messages and enhancing product appeal in the marketplace.

Research Method

The research methodology employed in this study encompasses both primary and secondary data collection methods to explore the impact of product packaging on consumer perception. A mixed-methods approach is utilized, with primary data collected through e-questionnaires distributed among student colleges, friends, and family members in Ahmedabad and Rajkot. The questionnaire focuses on various aspects of product packaging, such as design, colours, materials, and messaging, aiming to gauge respondents' opinions and preferences. 260 responses are received through random sampling. Additionally, secondary data is gathered from government reports, journals, newspapers, and websites to complement the primary data and provide a broader understanding of the topic.

The questionnaire design consists of three parts: demographic questions to classify respondents, general questions about product packaging, and Likert scale questions to assess perceptions and preferences. Likert scale questions facilitate efficient analysis using parametric or non-parametric statistical tools, allowing for comparative analysis of consumer responses. Overall, the research methodology employed ensures a comprehensive exploration of the relationship between product packaging and consumer behaviour.

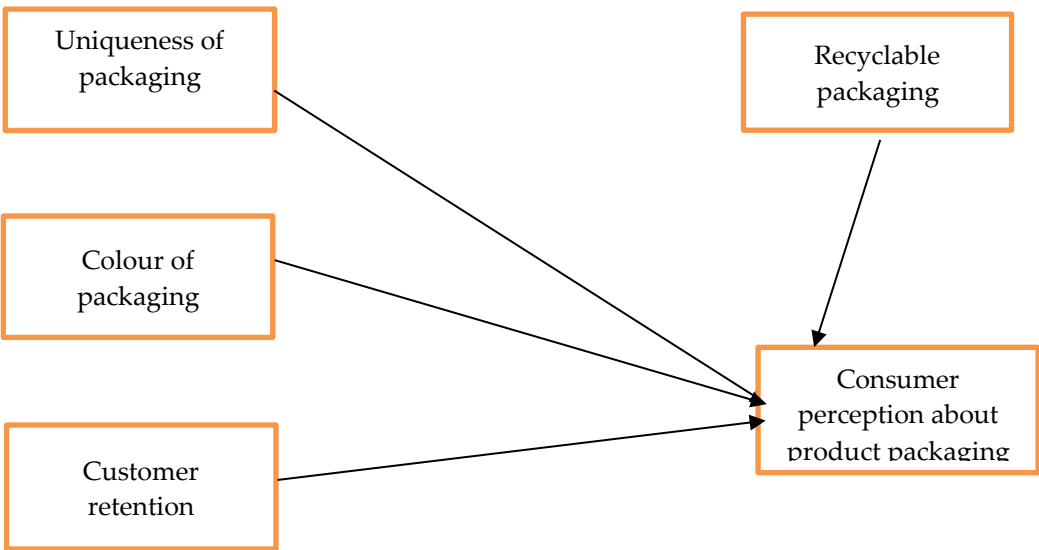


Figure 1 Research Model

Research Hypothesis

H₀₁: Consumer perception above packaging is depending on uniqueness, colour and customers retention.

H₀₂: Consumer perception above packaging is depending on recyclable packaging.

Result and Discussion

The reliability statistics indicate a strong internal consistency in measuring the factors influencing consumer perception about product packaging. The Cronbach's Alpha coefficients of .944 and .968, along with high N of items, affirm the reliability of the questionnaire in capturing the intended dimensions consistently. This reliability is essential in consumer behavior studies, ensuring accurate data collection and validity in subsequent analyses. Moreover, the KMO test and Bartlett's Test of Sphericity validate the suitability of the questionnaire and variables for factor analysis, indicating significant correlations among the variables. These findings provide a robust foundation for exploring the complex relationships between different factors and consumer perceptions about product packaging, offering valuable insights for marketers and businesses to optimize their packaging strategies effectively.

The analysis of respondent profiles reveals insightful patterns regarding gender, age, education, marital status, and occupation in the context of consumer perception about product packaging. For instance, the majority of respondents were male, aged between 23-27 years, with a bachelor's degree, single, and engaged in entrepreneurship or other occupations. Understanding these demographics is vital as they influence preferences and attitudes towards packaging. For example, younger individuals may prioritize innovative designs, while older demographics may focus on practicality. Similarly, singles might seek packaging reflecting personal preferences, while married individuals prioritize family needs. Moreover, professionals in entrepreneurship or marketing roles likely appreciate packaging's branding significance. Tailoring packaging strategies to these demographic nuances can enhance consumer engagement and satisfaction, driving purchase decisions effectively.

Table 1: Cronbach's Alpha and Average variance extracted

		Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
CP1	0.832	0.822	0.827	0.882	0.651
CP2	0.833				
CP3	0.779				
CP4	0.784				
CPP1	0.829	0.887	0.890	0.917	0.689
CPP2	0.854				
CPP3	0.805				
CPP4	0.874				
CPP5	0.784				
CR1	0.711	0.815	0.817	0.879	0.646
CR2	0.845				
CR3	0.847				
CR4	0.804				
RP1	0.807	0.859	0.860	0.904	0.703
RP2	0.869				
RP3	0.849				
RP4	0.826				
UP1	0.829	0.855	0.857	0.902	0.697
UP2	0.850				
UP3	0.818				
UP4	0.841				

Note: CP- Colour of packaging, CPP-Consumer perception about product packaging,
CR- Customer retention, RP- recyclable packaging, UP- Uniqueness of Packaging

Sources- Smart PLS

Table1 presents the reliability and validity statistics for various constructs measured in the research study. Cronbach's alpha values indicate the internal consistency of the items within each construct. Higher alpha values suggest greater reliability. Composite reliability (rho_a and rho_c) measures the internal consistency of the constructs, with values above 0.7 indicating acceptable reliability. Average variance extracted (AVE) assesses the convergent validity of the constructs, indicating the amount of variance captured by the items relative to measurement error.

For instance, in the context of this study, the constructs include Colour of Packaging (CP), Consumer Perception about Product Packaging (CPP), Customer Retention (CR), Recyclable Packaging (RP), and Uniqueness of Packaging (UP). The high Cronbach's alpha values for CP (0.832) and CPP (0.829) suggest strong internal consistency among the items

measuring these constructs. Similarly, CR, RP, and UP also demonstrate acceptable internal consistency.

Composite reliability values above 0.7 further validate the reliability of the constructs. Moreover, the AVE values for all constructs exceed 0.5, indicating satisfactory convergent validity. These findings collectively suggest that the measurement model used in the study is reliable and valid, providing confidence in the accuracy of the data collected and the subsequent analyses conducted.

Table 2: Fornell-Larcker criterion

	CP	CPP	CR	RP	UP
CP	0.807				
CPP	0.725	0.830			
CR	0.750	0.780	0.804		
RP	0.753	0.765	0.695	0.838	
UP	0.764	0.740	0.685	0.748	0.835

Note: CP- Colour of packaging, CPP-Consumer perception about product packaging, CR- Customer retention, RP- recyclable packaging, UP- Uniqueness of Packaging

Sources- Smart PLS

The Fornell-Larcker criterion assesses the discriminant validity of the constructs by comparing the square root of the average variance extracted (AVE) for each construct with the correlations between constructs. If the square root of the AVE for a construct is greater than its correlation with other constructs, discriminant validity is established. In this table, the diagonal elements represent the square roots of the AVE for each construct, while the off-diagonal elements represent the correlations between constructs.

For instance, the square root of the AVE for Colour of Packaging (CP) is 0.807, which is greater than its correlations with other constructs (CPP: 0.725, CR: 0.750, RP: 0.753, UP: 0.764). Similarly, the square root of the AVE for Consumer Perception about Product Packaging (CPP) is 0.830, higher than its correlations with other constructs (CR: 0.780, RP: 0.765, UP: 0.740), and so on.

Overall, the results indicate that each construct's AVE is higher than its correlations with other constructs, confirming discriminant validity. This suggests that the constructs are distinct from each other and measure unique aspects of the research variables, reinforcing the robustness of the measurement model.

Table 3: Mean, STDEV, T values, P values

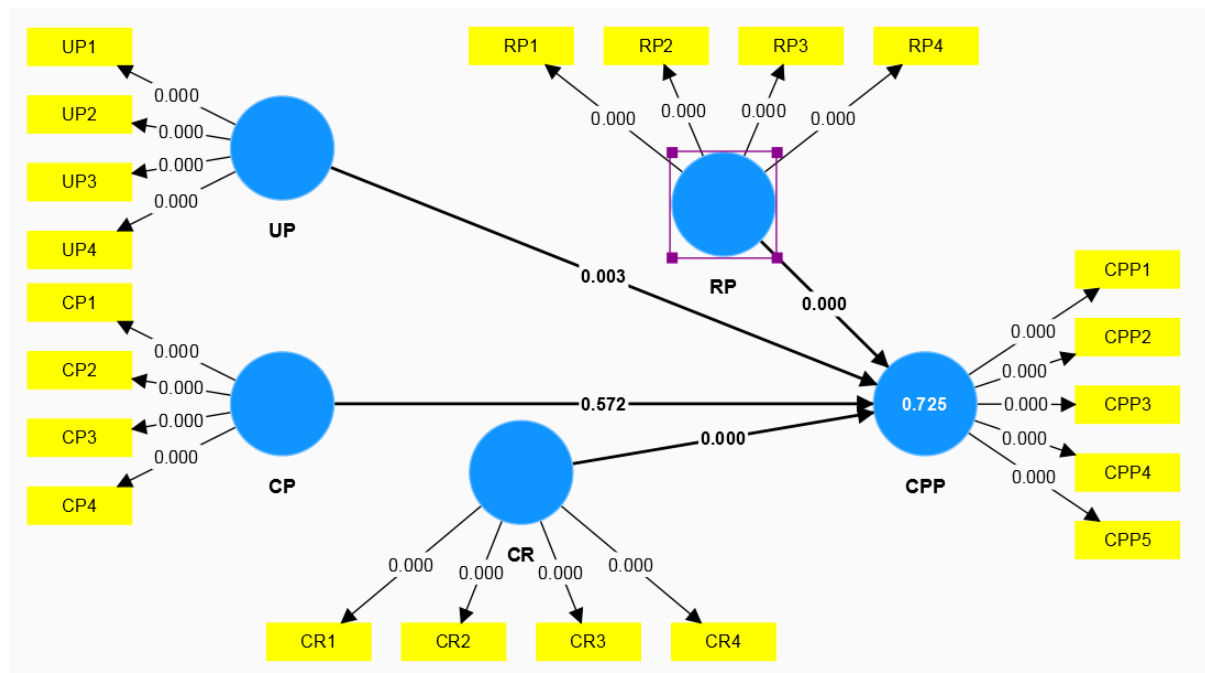
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decisions
CP -> CPP	0.038	0.039	0.067	0.566	0.572	Accepted
CR -> CPP	0.395	0.393	0.076	5.225	0.000	Accepted
RP -> CPP	0.301	0.302	0.073	4.117	0.000	Accepted
UP -> CPP	0.215	0.216	0.071	3.019	0.003	Accepted

Note: CP- Colour of packaging, CPP-Consumer perception about product packaging, CR- Customer retention, RP- recyclable packaging, UP- Uniqueness of Packaging

Sources- Smart PLS

Table 3 presents the results of the hypothesis testing using mean, standard deviation (STDEV), T-values, P-values, and decisions based on the original sample (O) for each construct.

For the relationship between Colour of Packaging (CP) and Consumer Perception about Product Packaging (CPP), the mean difference is 0.038, with a standard deviation of 0.067. The T-statistic is 0.566, resulting in a P-value of 0.572, indicating that the null hypothesis is not accepted.

**Figure 2: Smart PLS Model**

On the other hand, for the relationships between Customer Retention (CR), Recyclable Packaging (RP), Uniqueness of Packaging (UP), and Consumer Perception about Product Packaging (CPP), the mean differences are 0.395, 0.301, and 0.215, respectively. Their

corresponding standard deviations are 0.076, 0.073, and 0.071. The T-statistics are 5.225, 4.117, and 3.019, resulting in P-values of 0.000 for all three, indicating that the null hypotheses are accepted.

Overall, these results suggest that while there is no significant relationship between Colour of Packaging and Consumer Perception about Product Packaging, significant relationships exist between Customer Retention, Recyclable Packaging, Uniqueness of Packaging, and Consumer Perception about Product Packaging.

Conclusion

The research paper explores various factors influencing consumer perception about product packaging through correlation analysis and statistical testing. Initially, a correlation matrix revealed strong positive correlations between packaging colour and consumer perception, as well as moderate associations with factors like customer retention and recyclable packaging. Further statistical analysis highlighted customer retention as a significant predictor of consumer perception, emphasizing its importance for brand loyalty. Additionally, the preference for recyclable packaging and positive user perception also strongly influenced consumer perception. These findings underscore the significance of considering multiple factors in packaging design to resonate with consumers effectively.

In conclusion, the study provides valuable insights into packaging design's critical role in shaping consumer perceptions, brand loyalty, and purchase behaviour. Understanding these factors enables businesses to tailor packaging strategies effectively, enhance brand perception, and drive long-term success in the marketplace.

The future scope of this research lies in exploring emerging trends in packaging technology, such as smart packaging and sustainable materials, to further enhance consumer engagement and environmental sustainability. Globally, the insights gleaned from this study can inform packaging strategies across industries, leading to more impactful brand communication, increased consumer satisfaction, and reduced environmental footprint. By integrating innovative packaging solutions and consumer-centric approaches, businesses can navigate evolving market dynamics and contribute to a more sustainable and consumer-friendly future.

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