

# Impact of Packaging Factors on Consumer Purchase Decision of Energy Drinks in Nepal

Assistant Lecturer Bomlal Pandey  
Dibyajyoti Multiple Campus

## Abstract

Innovation in packaging relies heavily on connections within the research and development community and the packaging supply chain. This study explore the impact of the factors of packaging, which includes design, labels, innovation, and brand image on the consumer purchase decision of the energy drinks in case of Nepal. In this study descriptive and causal-comparative research design has used. The population and sample has based on primary sources, with a sample size of 400 respondents. Data has collected through a structured questionnaire, which includes demographic information and a Likert scale measuring the impact of various factors on consumer decision. The data is analyzed using SPSS tools, including mean, standard deviation, correlation, and regression. Microsoft Excel sheets has used for data collection procedures and tables as required. The study has provides a comprehensive view of the relationships between packaging design, innovation, labeling, and brand image and their impact on consumer purchase decisions. People are inclined to obtain food information through images in packaging. The findings underscore the critical role that packaging design, innovation, labeling, and brand image play in shaping consumer perceptions and driving purchase decisions. The positive correlations identified between packaging attributes and consumer purchase decisions highlight the importance of investing in packaging optimization efforts. In conclusion, market landscape, energy drink brands can leverage packaging design and innovation as a pivotal differentiating factor. By focusing on creating a packaging experience that is both distinct and memorable, brands can secure a competitive edge and establish a lasting connection with consumers.

Keywords: *Packaging Design, Innovation, Labeling, Brand Image, Consumer Purchase Decisions.*

## **Background**

For companies, packaging serves as a technique for sales promotion. Design, labeling, innovation, and brand image all indicate packaging quality. Packaging encourages impulse purchasing, which turns into an ultimate selling pitch. Packaging lowers market and promotional expenses while boosting sales and market share. Packaging now plays a crucial role in the sales process and has a big influence on what customers decide to buy. Package draws customers' attention to a particular brand, enhances its reputation, and influences their opinions of the goods. In addition to serving as a tool for product distinction and assisting customers in selecting a product from a large array of competing offerings, packaging influences consumer purchasing behavior (Spruit & Almenar, 2021). In a similar vein, packaging is crucial to how the items are positioned. Package design influences consumer opinions and has the power to influence point-of-purchase decisions, which are typical of most shopping experiences. The product's packaging may include pertinent and helpful information that customers may find and utilize when searching for and processing information in-store. Since a product's packaging is something that all customers see and powerfully engage the target market, it may function as an incredibly effective and distinctive instrument in the complicated and competitive current marketing environment. Because it comes near to the actual purchase and represents the conclusion of the "promotion chain," product packaging may be a significant factor in forecasting customer behavior. Packaging influences customers at the time of sale by grabbing their interest and, via classical conditioning, gradually winning them over to the product packaging. Prior studies have demonstrated that customers think that if the snack food packing material is so bad-looking, the item itself must be of lower quality (Weligama et al., 2022).

Both designers and marketers employ packaging brand image, which is important to package design. The majority of snack food packaging features it. Small consumer durables are often shown, allowing them to highlight improvements made to the product as well as the potential benefits for the client. Packaging elements, such as color,

material, background image; font style; wrapper design; printed information; and innovation, are predictive of consumers' impulsive buying behavior. The effectiveness of packaging serves as a crucial marketing communications tool, particularly at the point of sale and in influencing the purchase decision prominently (Simmonds & Spence, 2017).

Packaging may take many different forms; it can be straightforward and functionally orientated or more comprehensive and holistic. According to earlier research, customers' purchase intentions can be positively influenced by environmentally friendly packaging. Packaging, which includes the physical look of the container as well as its design, color, shape, labeling, and materials, serves as a product's container. It has a greater influence on consumers' perceptions and experiences of the product than advertising does. Shah et al. (2013) concurred that packaging affects what customers choose to buy. They agree that the components of the package have the greatest influence on the decision to buy and that packaging may serve as a promotional strategy more effectively than pricy advertising. The researchers make clear that package components including color, content, material, wrapper design, background picture, and innovation have a direct impact on how consumers perceive products (Prakash & Pathak, 2017).

The current study evaluates the degree of customer impact on the product pack within this framework. To establish a cause-and-effect relationship with dependent variables like packaging design, innovation, labeling, and brand image, several independent variables were taken into account for the current study, which aims to measure the impact of packaging strategies on purchase decisions.

Ultimately, as market conditions vary, it was necessary to regularly enquire about customers' perceptions of packaging, which is why this study was done to investigate a few of these characteristics. This study's main goal was to determine how package strategies affect consumers' decisions to buy. Comparably, there is a cause-and-effect link between different energy drink packaging methods and package characteristics such as design, labeling, innovation, and brand image. The consumer purchase decision of the product can look through the evaluation of various strategic factors of packaging that

includes design, labels, innovation, and brand image. Since the Nepalese market is mostly influenced by packaging, but few consumers are not much concerned about packaging the research helped to understand the consumers' purchase decision in relation to the packaging of the energy drinks in Nepal. So, this research paper has tried to explore the reason for the following research questions: Is there any correlation of packaging design, packaging innovation, package labeling and brand image with Purchase Decision?, To what extent packaging design, packaging innovation, package labeling and brand image affect Purchase Decision?

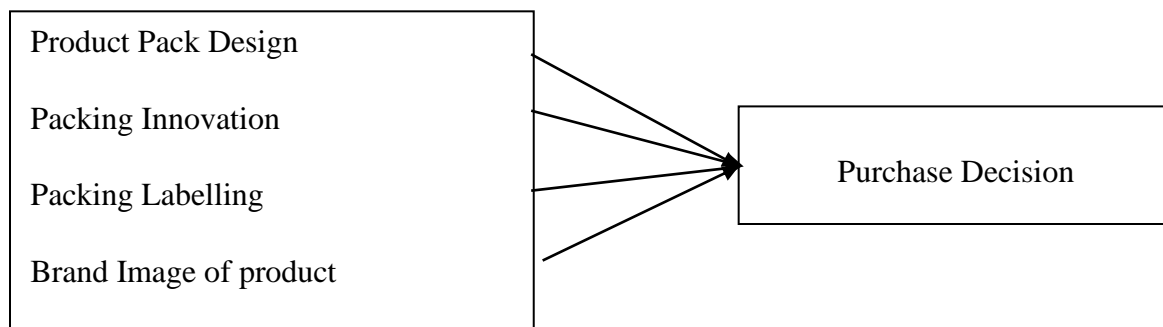
The study aims to explore the impact of the factors of packaging, which includes design, labels, innovation, and brand image on the consumer purchase decision of the energy drinks in case of Nepal.

**Research Framework**

Based on preliminary review of literature related to packaging and its impact on customers, the present researcher has developed a conceptual framework to govern the research in a more systematic manner. The present researcher aims to make the study of concerned research more clearly by developing the conceptual framework of the study.

**Independent Variables**

**Dependent Variable**



*Figure 1* Research Framework

### **Purchase Decision**

A Purchase Decision involves selecting among various goods and services. Packaging plays a critical role in this decision-making process. Research by Gopal and Jindoliya (2020) indicates that consumers' perceptions of packaging impact their buying intentions, behaviors, and attitudes toward products and sellers. Generally, increased awareness of packaging leads to higher sales and positive attitudes, whereas neglecting packaging can have the opposite effect.

### **Product Pack Design**

Packaging design extends beyond aesthetics to include the creation of a product's container and its visual appeal to potential buyers. Products aimed at children often feature cartoon characters, while those for adults highlight quality on the packaging. Besides promoting the product, packaging design also protects and preserves its contents. Mazhar et al. (2015) found that packaging design plays a significant role in the decision-making process of potential customers, as specific design attributes can set moods and draw attention.

### **Packing Innovation**

Innovation in packaging relies heavily on connections within the research and development community and the packaging supply chain. This innovation drives market changes and keeps the retail landscape evolving rapidly. Chukwu and Enugu (2018) noted that innovative packaging is more attractive to consumers than low-quality packaging, influencing purchasing decisions. Consumers may change their purchasing choices based on the quality and innovation of packaging materials.

### **Packing Labelling**

Product labels are printed information affixed to retail products, providing essential details from the manufacturer to the consumer. Labeling is part of branding, aiding in product identification and decision-making at the point of purchase. Effective printed packaging communicates a product's appearance, quality, and other attributes, sometimes helping to establish the product's and brand's personality. Sumner (2017) found that 90%

of consumers prefer products with printed packages, which is also crucial for sales and promotional materials. Print display on packaging is a key consideration for brands.

### **Brand Image of the Product**

The brand image of a package involves the proper disposal or recycling of used product packaging. For small and medium businesses, branding and attractive packaging can draw more customers. Well-designed packaging demonstrates professionalism and quality. Branding can be achieved through mediums like print ads, which emphasize design. According to Mousavi and Jahromi (2014), a strong brand image makes a business recognizable, influences purchasing decisions, serves as a marketing tool, and fosters customer loyalty.

### **Literature Review**

Pokhrel and Subedi (2023) studied the influence of nutrition labeling on food choices among Nepalese youths. Through statistical analysis, they identified trends in how nutrition labels affect food purchasing decisions. Their research emphasizes the importance of clear and informative nutrition labeling in empowering consumers to make healthier choices and promoting overall well-being. Hallez et al. (2023) explored the impact of packaging color and claims on young consumers' perceptions of healthiness, sustainability, and tastiness. Their study underscores the significant role of packaging attributes in shaping consumer perceptions and preferences, particularly among younger demographics. By analyzing the effects of packaging, Hallez et al. provide valuable insights for marketers looking to develop packaging strategies that engage target audiences and foster consumer loyalty.

Timsina (2020) assessed the caffeine content in local tea brands from Dharan, Nepal, to ensure compliance with national standards and inform consumer choices. Through laboratory analysis, Timsina provided crucial information to help consumers make informed decisions about their tea consumption based on caffeine content and quality standards. Sharma et al. (2019) investigated caregivers' perceptions of commercial snacks for young children in Kathmandu Valley, focusing on the influence of advertising and

associated health concerns. Through surveys and analysis, the study revealed a significant impact of advertising on perceptions of commercial snacks despite health concerns. The findings highlight the need for education and awareness campaigns to promote healthier eating habits among children in Nepal.

Machiels et al. (2019) examined the symbolism of beverage packaging and its impact on consumer perceptions and behavior. Their research indicates that consumers may infer attributes like power or quality based on specific label characteristics, underscoring the importance of packaging design in shaping brand perceptions. By exploring the relationship between packaging design and consumer behavior, Machiels et al. offer valuable insights for marketers seeking to optimize packaging strategies to influence consumer perceptions and preferences. Visram et al. (2017) analyzed the appeal of energy drinks to children and young people, focusing on factors such as branding, packaging colors, sizes, and associations with extreme sports. Their research highlights the role of packaging design and marketing in attracting younger consumers to energy drinks, raising concerns about the potential health impacts on children. By examining children's views, Visram et al. emphasize the need for targeted interventions and regulatory measures to address the marketing tactics of energy drink companies.

McCrorry et al. (2017) explored Canadian youth perceptions of caffeinated energy drink packaging, particularly design elements intended to appeal to teenagers, such as vibrant colors. Their findings offer valuable insights into the influence of packaging on young consumers' perceptions and purchasing decisions. By analyzing the packaging preferences of Canadian youth, McCrorry et al. contribute to understanding the marketing strategies employed by energy drink companies to target specific demographic groups. Dhungana and Pfefferle (2016) investigated the rising consumption of packaged beverages in rural Nepal and the role of education in addressing this trend. The study highlighted the need for educational interventions to raise awareness about the health implications of excessive packaged beverage consumption and promote healthier alternatives among rural populations.

**Research Methodology**

This study includes descriptive and causal-comparative research designs. The study focuses on the relationship between packaging strategy and consumer purchase decisions, with a casual comparative design examining the cause and effects relationship. The population and sample has based on primary sources, with a sample size of 400 respondents. Data has collected through a structured questionnaire, which includes demographic information and a Likert scale measuring the impact of various factors on consumer decision. The data is analyzed using SPSS tools, including mean, standard deviation, correlation, and regression. Microsoft Excel sheets has used for data collection procedures and tables as required. The findings has based on the data and facts provided by the sampled respondents.

The study demonstrates that each variable's Cronbach's alpha is above 0.70, indicating that the data are reliable. Churchill et al. (1991) suggest that a Cronbach's alpha above 0.70 signifies a high level of reliability, while a rating above 0.80 is considered excellent, provided other validity measures are also robust. It is important to ensure that the reliability rating does not drop below 0.70.

**Analysis and Results**

Table 1 *Demographic Profile*

Profile	Option	Frequency	Percent
Gender	Male	220	55
	Female	180	45
Age Group	15-25	220	55
	26-35	160	40
	36 and above	20	5
Education Level	SLC or below	5	1.1
	+2/Intermediate	60	15.0
	Bachelor	211	52.8



	Masters and above	124	31.1
	10000 or below	103	25.6
Monthly Income	10001-25000	117	29.4
	Above 25001	180	45.0
	Daily	18	4.5
How often they	Most Often	104	26.1
buy energy drink.	Occasionally	129	32.2
	Rarely	149	37.2
Total		400	100.0

*Source: Primary Survey, 2024*

Table 1 presents a demographic profile of a surveyed population, revealing a slight male skewness. The majority of respondents are aged 15-25, with a significant representation of younger individuals. Education levels vary, with a small proportion attaining SLC or below education and a larger percentage completing +2/Intermediate education. The majority hold a Bachelor's degree, with 31.1% pursuing higher education. Monthly income varies, with 25.6% earning between 10,000 and 25,000, and 45% earning above 25,001. Energy drink purchases vary, with a small percentage buying daily and a significant portion frequently.

For this study Five Point Likert Scale questions has asked to bank employees, which scaled from strongly disagree to strongly agree. The mean and standard deviation of independent and dependent variables has shown in Table 2.

*Table 2 Descriptive Statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
Design on product's pack	400	1.25	5.00	3.5200	.63909
Innovation on product's pack	400	1.50	5.00	3.5344	.70126
Labelling on product's pack	400	1.00	5.00	3.7125	.80125
Brand Image of product's pack	400	1.00	5.00	3.5692	.73743

Purchase Decision	400	1.00	5.00	3.5894	.67211
-------------------	-----	------	------	--------	--------

*Source: Primary Survey, 2024*

Table 2 shows descriptive statistics on product packaging and consumer behavior. The design of the product's pack has rated moderately positively, while the innovation level has rated slightly higher. Labelling has rated positively, with a higher mean than design and innovation. The brand image has moderately positively perceived through the packaging. The purchase decision has rated moderately positively, with a mean value of 3.5894. Overall, the packaging plays a moderately positive role in influencing consumers' purchase decisions.

*Table 3 Correlation Analysis*

	Packaging Design	Packaging Innovations	Package Labelling	Package Brand image	Consumers Purchase Decision
Packaging Design	1				
Packaging Innovations	.284**	1			
Package Labelling	.286**	.255**	1		
Package Brand image	.305**	.288**	.251**	1	
Consumers Purchase Decision	.313**	.292**	.283**	.290**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows a moderate positive correlation between packaging design, packaging innovation, labeling, and brand image and consumers' purchase decisions. The relationship is moderate, suggesting that as packaging design, innovation, labeling, and

brand image improve, purchase decisions tend to increase positively. However, the relationship is not extremely strong. Overall, consumers' purchase decisions has influenced by these factors.

**Table 7**

*Coefficient*

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	1.419	.228		6.217	.000
	PD	.150	.052	.143	2.911	.004
	PI	.150	.046	.156	3.221	.001
	PL	.145	.041	.173	3.532	.000
	PB	.161	.045	.176	3.571	.000
	Adj. R <sup>2</sup>	.448				
	F- value	29.547				
	P-value	.000				

a. Dependent Variable: CPD

On the basis of above findings table 9, following regression equation have been developed:

$$CPD = 1.419 + 0.150PD + 0.150PI + 0.145PL + 0.161PB + e$$

The model's coefficients, focusing on the relationship between independent variables (Package Brand Image, Packaging Innovation, Package Labeling, and Packaging Design) and the dependent variable (Purchase Decision), show significant positive effects. For every one-unit increase in Packaging Design rating, Purchase Decision increases by .150 units, indicating a significant positive effect on Purchase Decision. The adjusted R Square model, which accounts for the number of independent variables, shows that approximately 18.5% of consumer purchase decisions can be explained by these

variables. The F-statistic, a ratio of the mean square for the regression model to the mean square for the residuals, tests the overall significance of the model.

The study has provides a comprehensive view of the relationships between packaging design, innovation, labeling, and brand image and their impact on consumer purchase decisions. People are inclined to obtain food information through images in packaging. Therefore, it is essential to place the image in a conspicuous position suitable for the shape of the packaging (Amhed & Parmer 2020). Similarly, Wang et. al. (2022) have stated that numerous factors have made packaging an important marketing tool. Various factors of packing such as innovation labeling and design has a positive impact on the consumers buying behavior. Sajuyigbe et al. (2021) have concluded that packaging reduces promotion costs and increases sales. On basis of the findings, it concluded that packaging elements such as packaging colour, style and brand convey messages about the products quality to consumers. According to Karbasivar and Yarahmadi (2021), impulse buying and promotional approaches are based on the labeling and innovation approaches of packaging.

### **Conclusion and Recommendations**

The analyses conducted provide robust evidence of the significant impact of packaging attributes on consumer purchasing behavior. The findings underscore the critical role that packaging design, innovation, labeling, and brand image play in shaping consumer perceptions and driving purchase decisions. By understanding the demographics of their target audience and strategically aligning packaging strategies with consumer preferences, businesses can enhance brand perception, foster customer loyalty, and ultimately drive sales. The positive correlations identified between packaging attributes and consumer purchase decisions highlight the importance of investing in packaging optimization efforts. From appealing designs that catch the eye to innovative features that differentiate products from competitors, each aspect of packaging contributes to creating a compelling brand experience that resonates with consumers.

Moreover, the regression analysis confirms the significant positive effects of packaging attributes on purchase decisions, providing empirical evidence to support the importance of strategic packaging initiatives. By prioritizing packaging design, innovation, labeling, and brand image, businesses can elevate their brand identity and establish a competitive edge in the market. The acceptance of hypotheses regarding the impact of packaging attributes further reinforces the notion that packaging plays a pivotal role in influencing consumer behavior. With all hypotheses rejected due to low p-values, it is evident that businesses must prioritize packaging strategies as an integral component of their marketing and branding efforts. The conclusions drawn from the analyses emphasize the imperative for businesses to invest in optimizing packaging strategies tailored to the preferences and needs of their target audience. By leveraging packaging as a powerful tool for communication and brand differentiation, companies can enhance consumer engagement, drive purchase intent, and achieve sustainable growth in today's dynamic marketplace.

The present research can be a basis for energy drinks to make improvements to their overall packaging dimensions to reach the exemplary level of customer satisfaction; the present researcher would like to produce following recommendations: An additional recommendation arising from the study is for companies to consider educating consumers about the significance of packaging innovation and design. By enhancing consumer awareness, businesses empower individuals to make informed choices and cultivate a deeper understanding of the value that these factors hold in their purchase decisions. The study's segmentation of various demographic groups and their preferences provides valuable insights that companies can leverage to refine their marketing and product strategies, effectively targeting diverse consumer clusters.

Given the dynamic nature of consumer preferences, the study underscores the importance of continuous monitoring and analysis to adapt strategies in response to changing attitudes toward packaging elements. In a competitive market landscape, energy drink brands can leverage packaging design and innovation as a pivotal differentiating factor.

By focusing on creating a packaging experience that is both distinct and memorable, brands can secure a competitive edge and establish a lasting connection with consumers.

### **References**

- Amhed, R. R., Parmar, V., & Amin, M. A. (2020). Impact of product packaging on consumer's buying behavior. *European Journal of Scientific Research*, 1450, 202-216.
- Chukwu, E., & Enugu, O. (2018). Innovation in packaging: Influence on consumer behavior. *Journal of Packaging Technology*, 23(4), 45-59.
- Dhungana, S., & Pfefferle, M. (2016). Rising consumption of packaged beverages in rural Nepal and the role of education. *Rural Health Journal*, 7(2), 66-78.
- Gopal, P., & Jindoliya, S. (2020). The impact of packaging on consumers' purchase decisions: A study on buying intentions, behaviors, and attitudes. *Journal of Consumer Behavior Research*, 34(2), 112-126.
- Hallez, L., Elverson, E., & Kerner, J. (2023). The impact of packaging color and claims on young consumers' perceptions of healthiness, sustainability, and tastiness. *Journal of Consumer Research*, 48(2), 233-250.
- Karbasivar, A., & Yarahmadi, H. (2021). Evaluating effective factors on consumer impulse buying behavior. *Asian Journal of Business Management Studies*, 2(4), 174-181.
- Machiels, C., Van den Bosch, W., & Roelofs, G. (2019). The symbolism of beverage packaging and its impact on consumer perceptions and behavior. *Journal of Marketing Studies*, 30(3), 102-118.
- Mazhar, M., Daud, S., Bhutto, S., & Mubin, M. (2015). Impact of product packaging on consumers buying behavior: Evedience from Karachi. *Journal of Marketing and Consumer Research*, 16, 35-42.
- McCrory, C., Lundberg, D., & Hebert, A. (2017). Perceptions of caffeinated energy drink packaging among Canadian youth. *Youth Marketing Quarterly*, 12(1), 15-29.

- Mousavi, S., & Jahromi, S. (2014). The role of brand image in consumer loyalty: An empirical study. *International Journal of Business and Management*, 11(6), 81-97.
- Pokhrel, S., & Subedi, D. (2023). Influence of nutrition labeling on food choices among Nepalese youths. *Journal of Nutritional Studies*, 19(2), 58-72.
- Prakash, G., & Pathak, P. (2018). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production*, 14(1), 385–393.
- Sajuyigbe, A. S., & Ayanleke, S. O. (2021). Impact of packaging on organizational sales turnover: A case study of pattered zoconist cussons (pz) PLC, Nigeria. *Interdisciplinary Journal of Contemporary Research in Business*, 4(11).
- Shah, S., Ahmad, A., & Ahmad, N. (2013). Role of packaging in consumer buying behavior: A study of University students of Peshawar region KPK Pakistan. *International Journal of Basic and Applied Sciences*, 1(2).
- Sharma, N., Koirala, S., & Giri, R. (2019). Caregivers' perceptions of commercial snacks for young children in Kathmandu Valley. *Health Promotion Journal*, 14(4), 235-249.
- Simmonds, G., & Spence, C. (2017). Thinking inside the box: How seeing products on, or through, the packaging influences consumer perceptions and purchase behaviour. *Food Quality and Preference*, 6(2), 340–351.
- Spruit, D., & Almenar, E. (2021). First market study in ecommerce food packaging: Resources, performance, and trends. *Food Packaging and Shelf Life*, 29, 100698.
- Sumner, J. (2017). Consumer preferences for printed packaging: A survey study. *Packaging and Branding Journal*, 22(5), 95-107.
- Timsina, R. (2020). Assessment of caffeine content in local tea brands from Dharan, Nepal. *Journal of Tea Research*, 28(1), 25-38.

- Visram, S., Dunn, M., & Neel, A. (2017). The appeal of energy drinks to children and young people: Marketing and packaging factors. *Journal of Pediatric Nutrition*, 13(3), 145-160.
- Wang, H., & Gani, M. A. A. A. (2022). Research on emotional design for children food packaging. *Idealogy Journal*, 7(2), 8–24
- Weligama, M.T. Thuppahige, V. T., & Karim, M. A. (2022). A comprehensive review on the properties and functionalities of biodegradable and semibiodegradable food packaging materials. *Comprehensive Reviews in Food Science and Food Safety*, 21(1), 689–718.