

# *Product features and consumer preference for soft drinks in Nepal: A comprehensive analysis*

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## **Abstract**

Soft drinks are gaining popularity, even in Nepal. Product features are focused on advertising soft drinks because they are critical in meeting the expectations of customers. The study intended to assess the relationship between ingredients, quality, and flavor in soft drink preferences. A descriptive and causal research design was used in this study. This survey relied heavily on primary data. To obtain preliminary data, a four-point Likert scale questionnaire survey was created. This study employed a convenience sample technique to identify 315 respondents from the Kathmandu Valley who had previously consumed soft drinks in order to collect the relevant data. The study adopted cross tab, independent t-test, and correlation to analyze the data. The quality, ingredients, and flavor are positively correlated with consumers' preference for soft drinks. As per the result quality is the first preferable factor to select soft drinks and it has a high correlation with consumers' preferences. It assures customers to make them ready to purchase particular soft drinks. So the company should maintain the standard of quality of the product by using high-quality ingredients to meet the consumer's expectations and the company also need to maintain the standard of flavor to build up the company's image. The future researcher can survey taking another factor with a large sample using different methodologies to examine the consumer's preference for soft drinks.

**Keywords:** Consumers' preferences, ingredients, quality, flavor, and soft drinks

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## **Introduction**

Cola, flavored and sparkling waters, iced tea, sweet tea, sparkling lemonade, squash, fruit punch, root beer, orange, grape, and cream sodas, as well as ginger ale, are among the most popular soft drinks in the world. Water, sugar, and flavor are the main components of most soft drinks. Juice typically comprises only natural fruit and vegetables, while nectar often contains 25 to 99 percent juice and additional sugar. Fresh fruits and vegetables are squeezed mechanically to make this. Natural fruit and vegetable juices, Tropicana juice, and all the rest are 100% fruit juices (Ubeja & Patel, 2014). The absence of milk or other dairy products is also usually assumed (Ramana & Mallaiah, 2018).

Numerous historical perspectives have highlighted the adverse impact of product features on customers' brand preferences. Theoretical frameworks provide valuable insights into consumer buying behavior and the evaluation of products based on their features. In a study by San and Yazdanifard (2014), the authors explored whether purchasing decisions varied across different consumer generations during various stages of the decision-making process. McAlister (1982) proposed a model for individual consumer choice within specific contexts.

Product features play a critical role in consumer evaluations, as they are used to assess a product's attributes and characteristics (Mowen, 2004). Product attributes significantly contribute to consumer satisfaction and involve evaluation factors (Akpoymare, Adeosun, & Ganiyu, 2012). Consequently, product features have a substantial influence on consumer product choices (Oyatoye, 2011). Retailers, recognizing the ever-changing perceptions of customers, are increasingly prioritizing product features, often in a continuous manner (Childers, 1999). The importance of product attributes such as retail accessibility, cost, attractiveness, and innovation has been emphasized in numerous studies in the literature (Ahmed, 2007). Beaudoin et al. (2002) identified 12 qualities linked to the aspects of clothing, including good fit, durability, and ease of maintenance, favorable pricing, convenience, quality, color appeal, fashionableness, brand name, occasion compatibility, and style choice. To better understand consumer preferences and decision-making processes, various research studies have concentrated on key product attributes (Osian et al., 1979).

In the consuming process, a product feature is a primary driving element in consumer decision-making. This study serves to generate customer demand and allows marketers to better understand consumer purchasing behavior. Some consumers may purchase a product just because of its lower price. The higher price of one brand over another may not deter some consumers who believe they are getting the best possible product (Gwin & Gwin, 2003). Buyers'

purchase decisions, quality impressions, acquisition values, and curiosity are all influenced by suggested retail and reference prices (Grewal, Monroe, & Krishnan, 1998). For the same product, customers may have different expectations. A variety of brands are available to customers, and they are free to choose the one they like most. Marketers must employ a number of marketing strategies and techniques due to the fierce rivalry in the marketing of cold drinks in order to provide consumers with a wide range of different products, brands, or even just one product. According to research by Dube (2004), there are several studies on customer preferences, but just a few on consumer preferences for soft drinks. The objective of the study is to investigate the present status and association of ingredients, quality, and flavor with consumers' preference for soft drinks.

## Literature review

**Purchasing decision model:** According to San and Yazdanifard (2014), purchasing decisions differ from young to old in terms of the various stages of the consumer decision-making process. According to the concept, knowing the primary component of consumer brand choice and loyalty is critical for all marketers to make more profit and avoid consumer brand switching during decision-making. When making a decision, consumers face a more complicated scenario and have limited economic resources, thus they seek information until the marginal value gained is equal to, or less than, the cost of obtaining the information to make a decision (Grewal, Monroe, & Krishnan, 1998).

Jisana created the customer behavior model in 2014. It defines the key aspects required to comprehend consumer purchasing behavior. The model provides a simplified representation of the link between the elements that influence behavior. The purchasing decision is the consequence of a process defined by a collection of important elements imposed on the customer by the society in which they live (Kotler and Keller, 2006).

Product features encompass the various elements or attributes that an object can possess or lack (Mowen, 2004). Marketers leverage these features as a foundation for creating new products, and the strategic positioning of product features plays a crucial role in influencing the brands that consumers will actively consider and seriously contemplate during their purchase decisions (Mowen, 2004). Therefore, the product's features influence consumer product choice (Oyatoye, 2011).

Consumer preferences are gauged based on the degree of satisfaction derived from consuming different assortments or collections of goods. Consumer preference has been recently expanded to incorporate all evaluative criteria such as quantity, style, value, and physical properties such as price, brand name, or subjective standards such as amount, look, advantage, or quality (Jamal & Goode, 2006). Past research has been used to create a model that specifies pricing, perceived quality, and perceived value from the consumer's point of view (Valarie & Zeithaml, 1988).

According to Underwood, Klein, and Burke (2003), the ingredients required for a product to operate are not always related to the packaging. According to the findings of Altintzoglou and Heide (2023), the source of ingredients emerged as the most critical attribute, with consumers displaying a lack of acceptance towards food products utilizing ingredients from underutilized marine species when informed about it. According to Azzam and Salleh (2013)'s research, brand awareness, image, quality, and loyalty all have a significant impact on consumer preference. Gwin & Gwin (2003), found that some consumers might favor a lower-priced brand that offers the best and high-quality product in the market. The research team of Sultan, Memmon, and Amhed (2016) discovered that consumers choose laptops based on factors such as price, quality, business image, and endorsements. Deja and Patel (2014) highlighted the heightened awareness among customers regarding the taste and flavor of soft drinks. Ubeja and Patel (2014) further emphasized that customers exhibit a strong consciousness regarding their preferences for soft drinks, diligently examining and comparing flavors before making a purchase. Additionally, customers seek products that are pure and deliver a delightful taste experience. Esaimani (2-019) demonstrated a notable effect of pricing and advertising on young people soft drink purchasing behavior. Even though many of these topics of discussion about product features and how consumers assess benefits based on the features to make purchase decisions have been thoroughly investigated, these findings have not sufficiently established a link between product features and consumer purchase decisions. In addition, Ubeja and Patel (2014) demonstrated the gender differences on consumers' preference for soft drink.

## Research hypotheses

The following are some alternative hypotheses:

H1: There is a relationship between ingredients and consumers' preference for soft drinks.

H2: There is a relationship between quality and consumers' preference for soft drinks.

H3: There is a relationship between flavor and consumers' preference for soft drinks.

H4: There is an effect of gender on consumers' preference for soft drinks.

Consumer preferences encompass the decision-making process through which individuals select goods and services, taking into account factors such as taste, personal preference, and individual choice. Brand awareness, brand image, brand quality, and brand loyalty are just a few of the variables that have a significant impact on consumer preferences (Azzam & Salleh, 2013). **Ingredient:** Every beverage maker uses a secret ingredient to make their product. Soft drinks typically comprise carbonated water, sugar, and flavoring. Soft drinks may contain caffeine, colorings, preservatives, and other additives.

**Quality:** The term quality describes how excellent or great something is. It is a way to gauge how well a good, service, or experience lives up to or beyond consumer expectations and achieves what it was made to do.

**Flavor:** A soft drink's flavor is an important element that directly affects consumer preference. People have different tastes, so providing a wide variety of flavors and assuring a consistent, alluring flavor for drawing in a wider audience.

## Research methods

The research methodology encompasses a strategic plan devised to achieve the research objectives. It encompasses elements such as research design, population, and sampling, data sources, data collection procedures, and data analysis tools. In this study, a descriptive and casual research methodology was used to investigate both the demographic distribution of respondents and the relationship between various characteristics and their effects on consumer preference. The primary data collected directly from participants served as the primary source of information for addressing research objectives. The study focused on consumers who consumed soft drinks, with a total of 315 individuals voluntarily participating in the survey using a convenience sampling approach.

**Table 1**  
*Profile of gender*

Gender	Frequency	Percent
Male	205	65.079
Female	110	34.921
Total	315	100

Source: Field Survey, 2022

Male participation rates are lowest (110), while female participation rates are highest (205). The data in the table shows that 65.079 percent of respondents are female and 34.921 percent are male.

A well-structured questionnaire was utilized to gather data employing a four-point Likert scale. Cross-tabulation, independent sample t-test, and correlation were among the statistical approaches used to evaluate and interpret the acquired data.

Cronbach's Alpha was used to assess the reliability and validity of each question in the presented dataset. The reliability of the items is shown below.

**Table 2**  
*Reliability results*

S.N.	Variables	Cronbach's Alpha Coefficient
1	Ingredients	0.751
2	Quality	0.704
3	Flavor	0.786
4	Consumers' preferences	0.763

Source: Field Survey, 2022

The values for each variable in the study are shown in Table 1 using Cronbach's Alpha. The ingredients variable exhibits a Cronbach's Alpha of 0.741, indicating good internal consistency. The quality has a Cronbach's Alpha of 0.704, slightly below the desired threshold of 0.75. On the other hand, the flavor variable demonstrates a high Cronbach's Alpha value of 0.786, suggesting strong internal consistency. Similarly, the consumer preference variable shows a Cronbach's Alpha of 0.763, indicating good reliability. Overall, all variables, except for quality, exhibit satisfactory levels of internal consistency, ensuring the reliability of the items used in the study.

## Results

### Respondent's opinion

This section presents opinions of the respondents regarding the importance of packaging for selecting soft drink.

**Table 3****Opinion on importance of packaging for selecting soft drink**

	Frequency	Percent	Cumulative Percent
Yes	280	88.9	88.9
No	35	11.1	100.0
Total	315	100.0	

Source: Field Survey, 2022

According to the aforementioned table, 88.9 percent of respondents believed that while choosing a soft drink, the consumer should pay close attention to the packaging. However, 11.1 percent of respondents believed that packaging was not relevant.

**Opinion in the frequency of consuming soft drink****Table 4****Opinion in the frequency of consuming soft drink**

	Frequency	Percent	Cumulative Percent
Over two times a week	35	11.1	11.1
1-2 times a week	80	25.4	36.5
1-2 times a month	123	39.1	75.6
Less than 1 times a month	77	24.4	100.0
Total	315	100.0	

Source: Field Survey, 2022

Table 4 shows the opinion on the frequency of consuming soft drinks. The table shows the maximum no. of respondent i.e. 39.1 percent likes to drink either 1-2 times a month. 25.4 percent like to drink 1-2 times a week. 24.4 percent like to drink less than 1 time a month whereas 11.1 percent of respondents are likely to have over two times a week.

**Opinion on the need for a soft drink**

As per their preference, some people like to drink together with family, at a party, or when eating out. The result is presented in Table 5.

**Table 5****Opinion on the need for soft drinks**

	Frequency	Percent	Cumulative Percent
Together with family	50	15.9	15.9
At party	95	30.2	46.0
Whenever thirsty	35	11.1	57.1
When eating out	135	42.9	100.0
Total	315	100.0	

Source: Field Survey, 2022

Table 5, it can conclude, the maximum number of respondents i.e. 42.9 percent like to drink soft drinks when eating out whereas the least no of respondents 11.1 percent drink when they are thirsty. Similarly, 30.2 percent of respondents prefer to drink at parties and 15.9 percent of respondents prefer to drink together with family.

**Table 6****Opinion on the types of drinks**

	Frequency	Percent	Cumulative Percent
Carbonated drink	135	42.9	42.9
Non-carbonated drink	25	7.9	50.8
Juice	130	41.3	92.1
Tea	25	7.9	100.0
Total	315	100.0	

Source: Field Survey, 2022

According to the results of Table 6, the majority of respondents, 42.9 percent, prefer a carbonated soft drink with caffeine and carbon dioxide, whereas the minority, 7.9 percent, choose a non-carbonated drink. Juice is preferred by 41.3 percent of respondents, while tea is preferred by 7.9 percent.

### *Opinion of the quantity of soft drink*

**Table 7**

#### *Opinion of the quantity of soft drink*

	Frequency	Percent	Cumulative Percent
1 liter	65	20.6	20.6
2.2 liter	19	3.2	23.8
2.5 ml	50	15.9	39.7
500 ml	190	60.3	100.0
Total	315	100.0	

Source: Field Survey, 2022

Table 7 shows the preference of respondents' quantity of soft drinks. A maximum number of respondents i.e. 60.3 percent of respondents would prefer to have a 500 ml bottle of soft drink. 20.6 percent of respondents prefer to have a 1-liter bottle of soft drink and 15.9 percent of respondents prefer to have a 2.5 ml bottle of soft drink.

### *Opinions on the flavor of the soft drink*

**Table 8**

#### *Opinion on the flavor of the soft drink*

	Frequency	Percent	Cumulative Percent
Cola drink	145	46.0	46.0
Mango drink	80	25.4	71.4
Orange drink	35	11.1	82.5
lemon drink	55	17.5	100.0
Total	315	100.0	

Source: Field Survey, 2022

Table 8 displays the respondents' preferences for soft drink flavors. This leads us to the conclusion that the majority of respondents, 46 percent, favor cola flavor in soft drinks, while the minority, 11.1 percent, prefer the orange flavor. 25.4 percent of respondents favor mango flavor, while 17.5 percent choose lemon flavor in soft drinks.

### *Opinion on most influencing feature to consume soft drink*

**Table 9**

#### *Opinion on the most influencing feature to consume soft drink*

Factors Influencing consumers	Rank 1	Rank 2	Rank 3	Rank 4	Total	Weighted Value	Weighted Mean	Rank
	F	F	F	F				
Ingredients	70	80	75	90	315	760	2.41	2
Quality	180	40	55	40	315	1100	3.52	1
Flavor	20	95	80	120	315	630	2.00	3
Total	315	315	315	315				

Source: Field Survey, 2022

Table 9 shows that flavor of the soft drinks is most important while consuming the soft drink is ranked first with a weighted mean of 3.52 while ingredients are ranked second with a weighted mean of 2.41. Similarly, quality is ranked third with a weighted mean of 2.95.

**Table 10****Independent Sample t-test**

Variables	Group	N	Mean	p-value
Consumer Preference	Male	205	3.01	0.012
	Female	110	3.36	

Source: Field Survey, 2022

An independent sample t-test technique was used to compare the mean difference of the researched variable. Table 10 indicates 0.012 p-values of consumer preference that are less than 0.05, demonstrating that male and female customers' tastes are not perceived similarly.

**Correlation analysis**

In this study, the dependent variable is consumer preference, while the independent variables are ingredients, quality, and flavor. Karl Pearson's correlation coefficient was used to illustrate the relationship between consumer preference for ingredients, quality, and flavor.

**Table 11****Relation between variables for all samples**

	Ingredient	Quality	Flavor	CP
Ingredient	1			
Quality	.131*	1		
Flavor	.176*	.191*	1	
CP	.360**	.432**	.192*	1

Source: Field Survey, 2022

Table 11 demonstrates the correlation coefficient between ingredients and consumer preference is 0.360, reflects favorably correlated the two variables. Similar, there is a positive association between consumer preference and quality ( $r = .432$ ) and taste ( $r = .192$ ), showing that flavor is likewise favorably correlated with consumer preference. According to the findings, there is a strong correlation between quality and consumer preference.

**Table 12****Summary of Hypothesis Testing**

	Association	Result
H1	Ingredients - Consumer preference	Supported
H2	Quality- Consumer preference	Supported
H3	Flavor - Consumer preference	Supported
H4	Gender - Consumer preference	Supported

From Table 12, the result of H1 shows an association between ingredients and consumer preference. Similarly, H2 also presents an association between quality and consumer preference. Finally, H3 demonstrates a link between flavor and consumer preference.

**Discussion**

The study showed that an ingredient has a relationship with consumer preference for soft drinks. The result is almost in line with the earlier studies by Altintozglou and Heide (2023) showed that the ingredient was the most important. The result is also similar to Klein, and Burke (2003), the ingredients required for a product to operate.

The study showed a link between soft drink quality and consumer preference. The result is also similar to Gwin & Gwin (2003), who found that some consumers might favor high-quality products in the market.

The study discovered a link between flavor and consumer preference for soft drinks. Customers are particularly attentive to the flavor of soft drinks, according to previous studies by Deja and Patel (2014). According to Ubeja and Patel (2014), buyers continually research and compare flavors before purchasing any beverage items.

The study also found that there is an impact the male and females on consumers' preferences. The result are congruent with the previous study by Ubeja and Patel (2014) demonstrated the gender differences in consumers' preference for soft drinks.

According to the consumer behavior model, it is essential for all marketers to comprehend the fundamental driver of consumer brand choice and loyalty in order to increase profits and prevent consumer brand switching during decision-making. Here, in this study, quality and ingredients are known as major factors of consumer brand preference for soft drinks, therefore, the result is aligned with the model of San and Yazdanifard (2014).

## Conclusion and implications

Due to the fact that consumers compare and judge competing items based on their qualities, the feature is crucial to the decision-making process of consumers. The marketer uses a product's features to set his offering apart from those of his rivals. Customers are conscious of quality and ingredients so, they check the quality and compare ingredients before purchasing soft drinks. Therefore, the company needs to produce and maintain the standard of quality of the product and offer high-quality products with standard ingredients using new technology as per to meet customers' expectations to retain existing customers and attract potential customers for soft drinks. Most of the consumers are fading up by drinking the same product with the same flavor. So marketers should introduce other related products with a wide range of ingredients according to the changing needs in the market with a variety of flavors. Since the flavor is lowly associated with customer preference, the company needs to consider maintaining its flavor to build up the company's image for promoting the soft drinks business in this 21<sup>st</sup> competitive era.

## References

- Ahmad, N., & Lakhan, A. (2012). Effect of product packaging in consumer buying decision. *Journal of Business Strategies*, 6(2), 1-10.
- Akpoyamare, O. B., Ganiyu, R. A., & Patrick, K. A. (2012). The Influence of product attributes in consumer purchase decision in the Nigerian food and beverages industry: A study of Lagos Metropolis. *American Journal of Business and Management*, 1(4), 196-201.
- Anouero, O., & Vila, N. (2006). Consumer perception of product packaging. *Journal of Consumer Marketing*, 23(2), 100-112.
- Aylar, Z. (2012). Investigating the effect of brand awareness and brand image on the purchase behavior of customers. *International Journal of Research in Social Sciences*, 2(2), 77-95.
- Azzam, A. F. (2012). *The direct effect of predictor variables on destination brand loyalty in Jordan*. Perpustakaan Sultanah Bahiyah, Universiti Utara Malaysia, 06010 UUM Sintok, Kedah, Malaysia.
- Azzam, A. F., & Salleh, S. M. (2012). The direct and indirect effect of predictor variables on destination brand loyalty in Jordan (PhD thesis). Universiti Utara, Malaysia.
- Azzam, A. F., & Salleh, S. M. (2013). *The direct effect of predictor variables on destination brand loyalty in JORDAN* (Vol. 3).
- Church, N. (1994). *Developments in Modified-Atmosphere packaging and related technologies*. 5(11), 345-352  
*Developments in Modified-atmosphere Packaging and Related Technologies* (Vol. 5). (1994).
- Engle, J., & Blackwell, R. (1995). *Consumer Behaviour*. Florida: the Dryden press.
- Fornell, C. (2009). The satisfied customer: winners and losers in the battle for buyers' preference. *Journal of Total Quality Management & Business Excellence*, 20(5):581-582. DOI: 10.1080/14783360902925421
- Grewal, D., Monroe, K. B., & Krishnan, R. (1998). The effect of price-comparison Advertising in Buyers' perceptions of Acquisition Value, Transaction value, and Behavioural Intentions. *Journal of Marketing*, 62(2), 46-59
- Gupta, S., & Mehra, P. (2012). An empirical study on the effect of packaging attributes and biodegradability of micro packs on the perception of consumers. *Gyan Jyotie-Journal*, 2(3), 76-80.
- Gwin, C., & Gwin, C. (2003). Product attributes model. *Journal of Marketing Theory and Practice*, 11(2), 30-42.
- Haider, T., & Shadman, S. (2018). A study on the influences of an advertisement on consumer buying behavior. *Business Studies Journal*, 9(1), 1-13.
- Hill, H., & Tilley, J. (2002). Packaging of children's breakfast cereal: Manufacturers versus children. *British Food Journal*.
- Hill, H., & Tilley, J. (2002). Packaging of children's breakfast cereal: Manufacturers versus children. *British Food Journal*. 104(9), 766-777.
- Jamal, A., & Goode, M. (2006). Consumers' product evaluation: a study of the primary evaluative criteria in the precious jewelry market in the UK. *Journal of Consumer Behaviour* 1(2), 140-155. DOI: 10.1002/cb.61

- Jisana, T. K. (2014). Consumer behavior models: an overview. *Sai Om Journal of Commerce & Management*, 1(5), 34-43
- Kessuvan, A., Parthanadee, P., & Buddhakulsomsiri, J. (2015). The study of consumption behaviors and factors affecting decision to purchase fishery products of consumers in the North and Northeast of Thailand. *International Food Research Journal*, 22(6), 2670-2678.
- Larson, R. B. (2014). Psychological Pricing Principles for Organizations with Market Power. *Journal of Applied Business and Economics*, 16(1), 11-25.
- Martin, N., & Morich, K. (2011). Unconscious mental processes in consumer choice: toward a new model of consumer behavior. *Journal of Brand Management*, 18(7), 483-505. <https://doi.org/10.1057/bm.2011.10>
- McAlister, L. (1982, September 01). A dynamic attribute satiation model of variety. *Journal of Consumer Research*, 9(2), 141-150.
- McNeal, J., & Ji, M. (2003). Children's visual memory of packaging. *Journal of Consumer Marketing*, 20(5), 400-427.
- Mehre, P., & Singh, R. (2015). Consumer brand preferences for micro packs-an empirical study. *Bi-Annual Refereed Journal of Faculty of Management*, 10, 35-40.
- Mowen, J. C. (2004). Exploring the Trait of competitiveness and its consumer behaviour consequences. *Journal of Consumer Psychology*, 14(1-2), 52-63.
- Phil, C. (2014). Brands, Community, and Style - Exploring linking value in fashion blogging. *Journal of Fashion Marketing and Management*, 18(1), 3-19.
- San, Y. W., & Yazdanifard, R. (2014, April). How consumer decision-making process differ from youngerster to older consumer generation. *Journal of Research in Marketing*, 2, 2292-9355.
- Srinivasa, S., & Till, B. D. (2002). Evaluation of search, experience and credence attributes: role of brand name and product trial. *Journal of Product & Management*, 12(3), 417-431.
- Susanti, C. E. (2013). *Proceedings of the International Conference on Managing the Asian Century*. (P. Mandal, Ed.). Springer Singapore Heidelberg: New York Dordrecht London. DOI:10.1007/978-981-4560-61-0
- Thongchai, L., & Nuntana, U. (2013). A matter of shoes: The analysis of desired attributes of shoes and its retail shops from Bangkok consumers' perspectives. *International Journal of Marketing Studies*, 5(2), 300-350.
- Tsafarakis, S., Grigoroudis, E., & Matsatsinis, N. (2011). Consumer choice behavior and new product development: An integrated market simulation approach. *Journal of the Operational Research Society*, 62(1), 1253-1267.
- Underwood, R., Klein, N., & Burke, R. (2003). The communicative power of product packaging: creating brand identity via lived and mediated experience. *Journal of Marketing Theory and Practice*, 11(1) 62-76.
- Valarie, A., & Zeithaml. (1988, July). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.
- Zolfania, S. H., Zavadskas, E. K., & Turskis, Z. (2013). Design of products with both international and local perspectives based on the Yin-Yang balance theory and Swara method. *Economic Research*, 26(2), 153-166.