

## Consumer Buying Decision for Smartphones: An Analysis of Price, Brand, and Features

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### ABSTRACT

*In today's digital age, smartphones have become indispensable tools, serving as the primary means of communication, text messaging, email correspondence, web browsing, file storage, audio recording, and photography. The study aimed to examine the effect of price, brand, and product features on smartphone consumer buying decisions. The research employed a descriptive and causal-comparative research design. The study targeted individuals living in the Kathmandu Valley with prior smartphone experience. Three hundred forty respondents were selected using a convenience sampling technique. Data collection was executed through a five-point Likert scale questionnaire. The study mainly adopted correlation and regression to analyze the data. The study's findings revealed that price, brand, and product features had positive associations with consumer purchasing decisions toward smartphones. Interestingly, brand and product features significantly influenced consumer purchasing decisions, whereas price had no significant influence. Gender affects consumer buying decisions and product features, but not price and brand. As per the result, product features are essential in ensuring customer buying decisions, while brands create value for smartphones. Therefore, companies must maintain the brand image and adjust the latest product features to meet consumer expectations. The study has considered only three explanatory variables, i.e., price, brand, and product features, so future researchers can test the impact of other independent variables on the purchase decisions of smartphone consumers in a large sample size.*

**Keywords:** Price, brand, product features, consumer buying decisions, smartphones

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## 1. INTRODUCTION

Communication is among the most frequently debated topics in the corporate world today. The cell phone has gradually proven to be a reliable and effective way to communicate among the numerous channels available (Uddin et al., 2014). One of the fastest-growing forms of communication today is the smartphone, which offers instant connections and information access (Chan, 2015). More than mere communication is facilitated by mobile phones. Beyond voice, three key trends that are influencing so-called mobile culture have been identified: (1) communication services like voice, text, and pictures; (2) wireless Internet services like browsing, corporate access, and email; and (3) various media services like movies, games, and music (Hansen, 2003). Smartphones have provided enormous benefits to society, such as the ability to call and talk immediately, send short message service (SMS), assist business people in scheduling work and meetings, work as a navigation system (GPS), provide access to the internet, entertainment, download applications, store data, and even assist in legal matters, such as tracking criminals via tracking systems (Ling et al., 2001). Most people worldwide have widely adopted the smartphone, which has become indispensable to everyone's everyday lives.

Customers today are technologically savvy, thoroughly investigating the technical specs and features of mobile phones before acquiring them (Jha & Nanda, 2017). Because mobile phone development is based on consumers predicted future expectations, firms with the best forecasts about future technology and services will be the discipline's leaders (Brown, 1991). Smartphones have significantly simplified and improved people's lives. The main reason for introducing comfort into a person's daily life is through innovation. While the nation's mobile phone market is anticipated to expand reasonably throughout the projected period, it is imperative to comprehend consumers and the elements affecting their decision-making process (Frambach & Schillewaert, 2002). Smartphones typically include an operating system that enables the installation of applications. Smartphone operating systems include Apple's iOS, Microsoft's Windows, Google's Android, and Nokia's Symbian. Smartphones are used for internet browsing, social networking, email, online shopping, navigation, and other activities (Nagarkoti, 2003). Smartphones have mostly supplanted a variety of more minor and more crucial devices in our daily lives.

Consumer behavior is the sum of human decision-making units' decisions about acquiring, consuming, and disposing goods, services, activities, experiences, people, and ideas (Hoyer & Macinnis, 2009). Consumer behavior is people's decision-making process and physical action when analyzing, purchasing, using, and disposing of goods and services (Loudon, 2001). Whether or not a product fits the consumer's needs can influence their behavior. Technical considerations such as product performance, including hardware and software integration, file transfer, display, and camera performance, significantly impact smartphone purchasing decisions (Ganlari et al., 2016). The study of how individuals or groups buy, consume, and dispose of things, services, ideas, and experiences to satisfy their needs or desires (Kotler & Keller, 2010). Consumer behavior in the smartphone industry has been a prominent marketing research focus, ranging from adoption motivation to post-use behavior. More research is needed on the factors influencing smartphone purchasing decisions in Nepal. Therefore, this study will help to address that gap. The main objective of this study is to analyze the relationship and effect of price, brand, and product features on smartphone buying decisions among consumers.

Choice theory was developed by Glasser in the mid-20th century, with his ideas gaining prominence in the 1960s and 1970s. It is a psychological framework that explains human behavior based on individuals' choices to meet their basic needs and achieve personal satisfaction. It posits that all behavior is purposeful and driven by an individual's attempts to satisfy their five fundamental needs: survival, love and belonging, power and achievement, freedom and independence, and fun and enjoyment. Individuals continually make choices to meet these needs, with their internal "quality world" shaping their preferences. Unlike external control psychology, choice theory emphasizes personal responsibility, highlighting that individuals have control over their behaviors and decisions. It also introduces the concept of lead management to guide individuals toward making better choices. Practical applications include education, counseling, and personal development, empowering people to understand their behavior, make healthier choices, and enhance their relationships by aligning choices with their needs and values.

## 2. LITERATURE REVIEW

Since the creation of mobile phones is based on what consumers could want in the future, the industry leaders will be those who can most accurately forecast new services and technologies (Brown, 1991). People's lives are now considerably more pleasant and easy thanks to smartphones. Consequently, the main source of comfort in day-to-day living is innovation. Even though the nation's sales of mobile phones are anticipated to rise throughout the projected time, it is crucial to comprehend consumers and the factors influencing their decisions to buy (Frambach & Schillewaert, 2002). People use cellphones for a variety of things, such as social networking, email, online shopping, and navigation (Nagarkoti, 2003). Many smaller and more important equipment have been supplanted by smartphones today.

SATA (2013) analyzed the purchasing habits of mobile phone users in Hawassa, Ethiopia. According to the data, pricing is the most crucial factor influencing purchasing a mobile phone. Second, the functions included in a mobile phone are the most crucial consideration. Mobile phones' brand name and durability are also similarly associated and have moderate correlations with the purchase decision. The study also discovered a favorable association between smartphone purchasing decisions and pricing, product characteristics, brand identity, and durability.

Uddin et al. (2014) conducted a study in Khulna, Bangladesh, to investigate the factors that impact consumers' decisions to buy mobile phones. The findings indicate that physical attributes are the most important factor. Pricing, charging and operating facilities, size and weight, referrals from friends and coworkers, referrals from neighbors, and advertising are further factors. It was also found that the most important factor is physical attributes. Additionally, it was shown that considerations like as price, charging capabilities, and operational facilities affect smartphone purchases.

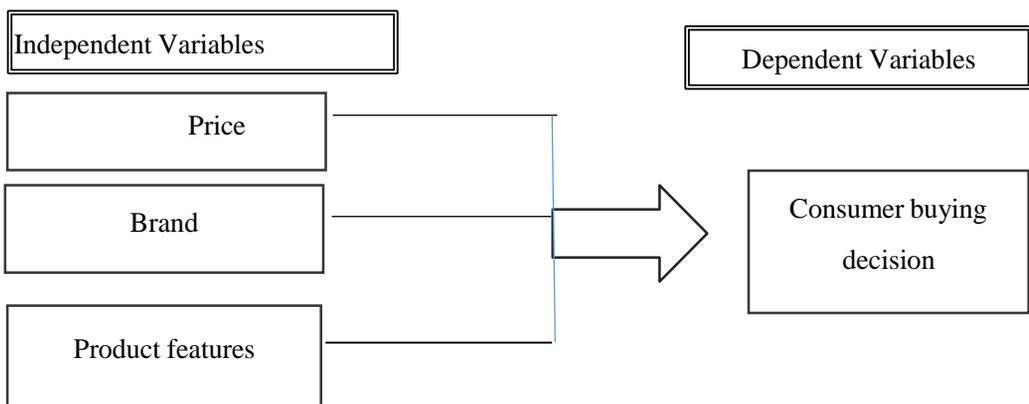
Rahim et al. (2016) researched at the University of Technology in Kedah, Malaysia. The study's findings indicate that product attributes are strongly and positively associated with smartphone purchasing intent. Similarly, brand name and purchase intent have a significant and positive association. There is, however, no substantial association between product sacrifice and smartphone purchase intention. It also discovered a strong and favorable association between product attributes and smartphone purchasing intention. Joshi et al. (2016) investigated the factors

influencing smartphone buying among Indian adolescents. The findings revealed a favorable association between price, product feature, and brand in smartphone purchasing decisions.

Nushrat et al. (2017) explored the elements influencing a generation's smartphone purchase decision. According to the study, social influence, product features, and brand image significantly impact smartphone purchasing decisions. However, statistically speaking, other factors like price, convenience, dependability, and social demands are insignificant. Comparably, decisions to buy smartphones are significantly and favorably correlated with product attributes, brand perception, and brand image. But there's hardly any correlation between smartphone purchasing decisions and convenience.

**Figure 1**

*Conceptual Framework*



## Research Hypotheses

The following are alternative hypotheses:

H1: There is an effect of price on the consumer buying decision of smartphones.

H2: There is an effect of brand on the consumer buying decision of smartphones.

H3: There is an effect of product features on the consumer buying decision of smartphones.

H4: There is an impact of gender on the price, brand, product features, and consumer buying decisions of smartphones.

Operational definition of the independent and dependent variables are presented below:

*Price.* Price is the sum of money a customer is willing to spend on a good or service (Kotler & Armstrong, 2010). The product's worth differs from person to person. However, determining a price most buyers will accept is challenging but critical.

*Brand.* The brand of smartphones is an independent variable that significantly influences purchasing decisions. The brand name is critical for the company to attract clients and control and reproduce purchasing behavior. According to Srinivasan and Till (2002), brand names are

significant assets that serve as quality indicators and representations of specific knowledge structures related to the brand.

*Product Features.* New and creative features influence purchasing decisions. A smartphone's hardware and software are significant product aspects. Software features are more important to consumers than hardware capabilities when making judgments about which smartphones to buy, according to Osman et al. (2012). Extra features like weight and phone cameras also influence consumer selections. Mudondo (2014) treats color and size as extra motivators.

*Buying decision.* Buying decisions result from intending to obtain particular goods or services in the future, but they are consistently implemented because the accomplishment of the purchase intention is contingent upon the individual's capacity (Qun et al., 2012). After preliminary research to ensure a product meets their wants and aspirations, customers buy it. Buyers' thoughts suggest that they intend to purchase (Blackwell et al., 2001). A wide variety of smartphone brands are offered on the market to satisfy consumers' needs and preferences.

### 3. RESEARCH METHOD

This study evaluated the impact of independent variables like price, brand, and product attributes on consumer purchase decisions and the relationship between dependent and independent variables using a descriptive and causal-comparative research design. People in the Kathmandu Valley who have previously used smartphones were the study's target population. Utilizing a convenience sampling method, 344 respondents were chosen. The study needs primary data to accomplish its research aims. A five-point Likert scale was included in a well-structured questionnaire that was used to gather data. The study used descriptive statistics, such as mean, standard deviation, covariance, and independent t-test, and inferential statistics, such as regression models and correlation, to evaluate and interpret the data to produce research outcomes.

### 4. RESULTS AND ANALYSIS

#### 4.1 Demographic Status

The demographic characteristics of the respondents concerning consumer purchase decisions is presented in this section.

**Table 1**

*Profile of Gender*

Gender	Frequency	Percentage	Cum %
Male	134	39.4%	39.4%
Female	206	60.6%	100%
Total	340	100%	

*Source: Field Survey, 2023*

Of the 340 samples, 206 respondents were female, and 134 were male, as shown in Table 1. Out of 100 percent, 60.6 percent of the population is female and 39.4 percent is male.

**Table 2***Profile of Age Group*

Age Group	Frequency	Percentage	Cum
Below 20	12	3.5	3.5
20-25	262	77.1	80.6
Above 25	66	19.4	100
Total	340	100	

*Source: Field Survey, 2023*

Table 2 shows the respondents were under the age of 20, accounting for 3.5 percent of all respondents. Similarly, out of 340 respondents, 262 were between the ages of 20 and 25, accounting for 77.1 percent of all respondents. Furthermore, 66 responders were over the age of 25. This represents 19.4 percent of all respondents. As a result, the age range of 20 to 25 has the highest participation rate.

**Table 3***Profile of Education Level*

Educational level	Frequency	Percent
Graduate	282	82.94
Postgraduate	58	17.06
Total	340	100

*Source: Field Survey, 2023*

Table 3 shows that 83 percent of respondents held a graduate degree, which is the most common educational level. Similarly, a postgraduate degree was determined to be the highest level of education held by 17 percent of the respondents.

**Table 4***The Operating System Used by the Respondents in their Smartphone*

OS	Frequency	Percentage	Cum %
Apple	42	12.4	12.4
Android	298	87.6	100
Total	340	100	

*Source: Field Survey, 2023*

Table 4 demonstrates that 298 of the 340 respondents utilize the Android brand, with an 87.6 percentile. In a similar vein, 42 participants, or 12.4 percent of the total sample, reported using the Apple brand. This figure shows that 87 percent of smartphone consumers utilize the Android brand, with Apple coming in second.

Table 5 indicates that, with a mean weight value of 2.45, the majority of respondents selected Battery as their first option. With a mean weight value of 2.46, storage capacity comes in second. In addition, RAM is ranked as the third most important component with a mean weighted value of 2.52. Lastly, the camera is ranked as the least significant feature among the four options, influencing students' inclinations to purchase cell phones, with a mean value of 2.55.

**Table 5**

*Opinion on the Priority of the Most Important Factor*

Features	Rank 1		Rank 2		Rank 3		Rank 4		Total	Weighted value	Weighted mean	Rank
	No	%	No	%	No	%	No	%				
Camera	108	31.8	44	25.9	22	12.9	50	29.4	170	434	2.55	4
Storage	30	8.8	43	25.3	68	40.0	44	25.9	170	419	2.46	2
Battery	108	31.8	55	32.4	49	28.8	12	7.1	170	417	2.45	1
RAM	94	27.6	31	18.2	28	16.5	64	37.6	170	430	2.52	3
Total	340		340		340		340					

Source: Field Survey, 2023

**4.2 Descriptive Statistics**

The researchers performed Cronbach's Alpha analysis to evaluate the reliability and validity of each question within the dataset, as recommended by Gliem and Gliem (2003). The presentation of the reliability of the items is provided below.

**Table 6**

*Reliability Results*

Variables	Cronbach's Alpha coefficient
Price	.779
Brand	.754
Product features	.812
Consumer buying decision	.788

Source: Field Survey, 2023

Table 6 demonstrates a Cronbach's Alpha coefficient of 0.779 of price, which suggests a satisfactory level of internal consistency. The brand exhibits a Cronbach's Alpha coefficient of 0.724, which falls slightly below the desired threshold of 0.75. In contrast, the product feature exhibits a notable Cronbach's Alpha coefficient of 0.812, indicating robust internal consistency. The variable representing consumer buying decisions exhibits a Cronbach's Alpha coefficient of 0.788, which suggests a satisfactory level of reliability. All variables, except brand, generally demonstrate acceptable levels of internal consistency and reliability.

**Table 7**

*Mean, Standard Deviation, and Variance*

Variables	Mean	S.D.	Variance
Price	3.15	1.00	1.01
Brand	3.13	1.06	1.13
Product features	3.49	1.02	1.05
Buying decision	3.69	0.92	0.88

Source: Field Survey, 2023

Table 7 shows that the mean value is 3.15 for the price, 3.13 for the brand, 3.49 for product features, and 3.69 for consumer buying decisions. The data suggests that the participants' opinions align with the statements. This output indicates that respondents' views have tended to agree with the statements.

**Table 8**

*Independent Sample t-test*

Variables	Gender	N	Mean	p-value
Consumer buying decision	Male	205	3.01	0.031
	Female	110	3.36	
Price	Male	205	3.50	0.058
	Female	110	3.64	
Brand	Male	205	3.00	0.074
	Female	110	2.95	
Product features	Male	205	3.40	0.002
	Female	110	3.04	

*Source: Field Survey, 2023*

Table 8 displays the results of an independent sample t-test to examine the variables of interest. The analysis includes a P-value-based comparison of the mean difference between male and female students. The mean difference of the studied variable was compared using an independent sample t-test analysis. The p-values of 0.031 and 0.002, below the significance level of 0.05, indicate statistically significant differences between males and females regarding customers' buying decisions and product features. However, given that the p-values are 0.058 and 0.074, respectively, which are both greater than the conventional significance level of 0.05, it can be concluded that there is no statistically significant difference in terms of price and brand between males and female.

**4.3 Relationship among Dependent and Independent Variables**

The study focuses on consumer preference as the dependent variable, with the independent variables being price, brand, and product features. The utilization of Karl Pearson's correlation coefficient unveiled the association between consumer buying decisions in price, brand, and product features.

**Table 9**

*Relationship among Dependent and Independent Variables*

	Price	Brand	Product quality	CBD
Price	1			
Brand	.160*	1		
Product quality	-.131*	-.009*	1	
CBD	.055*	.128**	.114**	1

*Source: Field Survey, 2023*

Table 9 presents the correlation coefficient of 0.055, which signifies the relationship between price and consumer buying decisions. The correlation coefficient between brand and consumer buying decisions is 0.128, while the correlation coefficient between product features and consumer buying decisions is 0.114.

**4.4 Effect of Independent Variables on Dependent Variables**

The regression equation presented herein is employed to ascertain the impact of price, brand, and product features on consumer buying decisions.

**Table 10**  
*Model Summary of Regression*

	Unstandardized coefficient			
	Std error	Beta	t- value	Sig
(Constant)	.987	1.0436	4.314	0.000
Price	.089	0.417	2.005	0.051
Brand	.134	0.645	2.86	0.002
Product feature	.118	0.542	2.72	0.004
R square		0.325		
Adjusted R square		0.312		
F stats		59.75		
p-value		0.000		

*Source: Field Survey, 2023*

The R square value of 0.325, the adjusted R square value of 0.312, the F statistic value of 59.75, and the p-value of 0.000 are reported in Table 10. Based on the statistical analysis conducted at a significance level of 5 percent, the findings suggest that the model exhibits a significant level of effectiveness. The result shows that brand and product quality exhibit statistical significance, as indicated by their p-values of 0.002 and 0.004. In contrast, the p-value of the price is 0.051, which indicates insignificant. Hence, the impact of price on consumer buying decisions is minimal, whereas brand and product features play a significant role.

**Table 11**  
*Summary of Hypothesis Testing*

Effect	Result
H1 Price - Consumer buying decision	Not supported
H2 Brand – Consumer buying decision	Supported
H3 Product features - Consumer buying decision	Supported

The results for H1 show that brand has a major influence on consumers' purchasing decisions, as shown by Table 11's findings. Similarly, H2 states that product features have a big influence on

what customers decide to buy. The results of research H3 ultimately show that consumers' purchasing decisions are not much influenced by price.

## 5. FINDINGS AND DISCUSSION

The research findings indicate that a particular price does not significantly influence the consumer's decision to buy a smartphone. The result is similar to Nushrat et al. (2017), who stated that price was statistically insignificant in smartphone purchasing decisions. However, the finding needs to be more consistent with Sata (2013), who revealed that price is the dominant factor affecting the decision to buy mobile phones. The outcome is comparable to the findings of Uddin et al. (2014), who indicated that pricing affects the decision to buy smartphones.

The research findings revealed that the smartphone brand significantly influences consumers' buying decisions toward smartphones. The results align with those of Nushrat et al. (2017), who showed that brand image significantly influences consumers to purchase smartphones. The research is similar to Joshi et al. (2016) research found that there is a positive impact of brand on the smartphone buying decision

The research found that the product features of smartphones significantly influence consumers' preferences. The finding is consistent with Nushrat et al.'s (2017) investigation of product features significantly impacting smartphone purchasing decisions. The result is also in line with Rahim et al. (2016), who reveal that product features substantially impact the purchase intention of the smartphone.

## 6. CONCLUSION

In conclusion, this study has shown that product features and brand image are pivotal in smartphone consumers' buying decisions. Companies must maintain their brand image and adjust the latest product features to fulfill consumer expectations. Smartphone companies must consider ongoing innovation to satisfy consumer needs and wants and thrive in this competitive market to better position themselves. Investment in research and development is crucial for smartphone companies to remain competitive and offer the latest and most desirable features. Additionally, business organizations must build and maintain a strong brand image that fosters consumer loyalty and trust. The research's findings emphasize the importance of brand and product features, which also offer insightful information on customer choices about smartphones. In order to allow future researchers to explore the influence of other independent variables on smartphone buyers' purchase decisions using larger sample sizes, diverse techniques, and varied geographic concentrations, just three explanatory factors were considered in this study.

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