Factors Affecting Buying Decision of Smart Phones – (In Reference to The College Student of Kathmandu)

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ABSTRACT
Now a days, Smart phone becomes the popular choice of all individual for the communication. It not only works for the communication but also works to check the email, use of internet, shaving and sharing of important documents, sound recording, taking photos. There are different models and brand of smartphone. Considering the growing needs and demand of smart phone, the study was conducted to identify the factors affecting buying decision of smart phones. The study was conducted among the 170 students of Public Youth Campus of Kathmandu. The data was collected via Google form due to spread of Covid-19. The descriptive research design had selected for the study to describe the factors that affect the purchase decision. The study had used some statistical models like mean, medium, St. deviation, and correlation to analyze the data. The result shows that product attributes, price and brand was regarded as first, second, and third most important factors respectively. The correlation analysis shows all the independent variables: price, brand and product features had positive and significant relationship in consumer buying decision towards Smart Phones. The study has considered only three explanatory variables i.e., price, brand and product features in the entire study so future researcher can test the impact of other independent variables on purchase decision of smart phone consumers.

Keywords: Affecting, Buying, Decision, Factors, Smartphone

1. INTRODUCTION
In today's business environment, communication is one of the most discussed topics. Among the various channels of communication, the cell phone is increasingly proving to be a dependable and
efficient means of getting from one person to another (Uddin, Lopa, & Oheduzzaman, 2014). A smartphone is a type of mobile phone that runs on a mobile operating system. It has more computer power, connectivity, and performance than a basic feature phone. The smartphone is one of the world's fastest-disseminating communication technologies, providing quick connection and access to information (Chan, 2015). Early smartphones were largely sold to businesses, seeking to combine the capability of standalone personal digital assistant (PDA) devices with cellular telephony compatibility, but were hampered by battery life, cumbersome form designs, and the immaturity of wireless data service. The smartphone business has benefited from improved hardware and speedier wireless transmission (thanks to standards like LTE). Mobile phones serve more than just communication. Beyond voice, three major trends have been identified that are shaping the so-called mobile culture: (1) communication services such as voice, text, and pictures, (2) wireless Internet services such as browsing, corporate access, and e-mail, and (3) various media services such as movies, games, and music (Hansen, 2003).

Smartphones have provided enormous benefits to society, including the ability to call and talk right away, 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, Lang, Fong, & Perinpajothi, 2001). The smartphone has now been widely embraced by the majority of people all over the world, and it has become a vital part of everyone's daily lives. As more people get linked, new information and communication technologies continue to infiltrate countries throughout the world. The modern customer is technologically knowledgeable and researches the technical specifications and features of mobile phones before purchasing them (Jha & Nanda, 2017).

Mobile phone development is predicated on consumers' potential future demands, thus organizations that have the greatest guesses about future technology and services will be the discipline's leaders (Brown, 1991). Smartphones have made people's lives considerably easier and more comfortable. The primary reason for bringing comfort into a person's daily existence is through innovation. Although the country's mobile phone market is predicted to increase at a healthy rate during the forecasted period, it is critical to understand customers and the variables that influence their purchasing decisions (Frambach & Schillewaert, 2002).

Despite the fact that mobile phones have become an integral aspect of personal communication around the world in recent years, consumer research has paid little attention to the motivations and choices that drive mobile phone purchases. The application store on a Smartphone allows users to download and install third-party programs. People can install a variety of applications in their Smartphones, including internet surfing, email, navigation, social media, music listening, news reading, games, finance, health and fitness, taking notes, calendars, weather forecasts, and many other things. Smartphones are typically equipped with an operating system that allows for the installation of applications. Apple's iOS, Microsoft's Windows, Google's Android, and Nokia's Symbian are just a few examples of smartphone operating systems. People use their smartphones for internet browsing, social networking, emails, online shopping, navigation, and a variety of other activities (Nagarkoti, 2003). Smartphones today have replaced various other smaller and important devices in our lives.
Consumer propensity to purchase, often known as consumer behavior, is the study of who, when, where, how, and why people buy things. When analyzing, purchasing, utilizing, or disposing of goods and services, consumers engage in a decision-making process and physical action known as consumer behavior (Loudon, 2001). Consumer behavior is the sum of human decision-making units' decisions about the purchase, consumption, and disposition of goods, services, and activities, as well as experiences, people, and ideas (Hoyer & Macinnis, 2009). According to Kotler & Keller (2009), “Consumer behavior is the study of how individuals or groups buy, use and dispose of goods, services, ideas or experience to satisfy their needs or wants”.

Consumer behavior toward smartphones is becoming more and more of a focus of marketing research. Consumer behavior in the smartphone business, particularly from adoption motivation to post-use behavior, has been a prominent subject of marketing study. This study's findings reveal that branding, product design, product performance, and pricing all have an impact on people's purchasing decisions. Consumer behavior can be influenced by whether or not a product meets their needs. In the case of smartphones, technical factors such as product performance, which includes hardware and software integration, file transfer, display, camera performance, and so on, play a big role in purchase decisions (Ganlari, Deka, & Dutta, 2016).

In the Nepalese context, there are few research done on the factor affecting buying decision of smartphone so this study will be important to fulfill this gap. The research is directed towards answering following question

1. What are the factors affecting buying decision of smart phones among consumers?
2. Which is the most influencing factor affecting buying decision of smart phones among consumers?
3. What is the relationship of price, brand, product features and buying decision?

2. PURPOSE OF THE STUDY
The main objective of this study is to identify the factors affecting the buying decision of smartphones among consumers.

3. MATERIALS & METHODS
The research designed applied in this study was quantitative and descriptive research designs. Descriptive research is to provide an accurate portrayal or account of characteristics of a particular individual, situation or group; these studies are a means of discovering new meaning, describing what exists, determining the frequency with which something occurs and/or categorizing information (Dulock, RN, & DNS, 1993). The descriptive research design had selected for the study to describe the factors that affect the purchase decision.

The population of this study was all the young students of Public Youth Campus of Kathmandu, Nepal. However, considering all the population was impossible, so the convenience sampling method was used to select the sample for the convenience of the study. Thus, the samples were collected via Google form. Total 170 response was received from the students which was the final
sample of this study. The primary sources of the data were used to determine the willingness to purchase smartphones among youths of Kathmandu valley. The survey questionnaire asked respondents to respond in five ways: a short response, a preference of one or three choices, a ranking of options, a multiple-choice, and a Likert scale alternative. Respondents were asked to fill out their names as a brief answer to the question, which was optional for the respondents. Respondents had to select Yes, No or Rarely in some other issues. In the ranking question, respondents to the survey were expected to rate the options from 1 to 4. Respondents can select multiple options in the multiple-choice query. The 5-point Likert scale was used to gather the respondents' views on the study analysis, where point 1 strongly disagrees and 5 is strongly agreed. The study had used some statistical models like mean, medium, St. deviation, and correlation to analyze the data.

4. RESULT & DISCUSSION
This section includes the empirical investigation conducted as a field survey in which structured questionnaire was developed and distributed to the sample selected through convenient sampling. The questionnaire was distributed to altogether 170 sample respondents via Google form to obtain their views regarding the various factors influencing the buying decision of smartphones. All the sample respondents, to whom the questionnaire was distributed, actively participated in the survey with the response rate of 100 per cent. The responses collected are arranged, coded, tabulated, and analyzed to facilitate the study's descriptive analysis.

| Table 4.1: Gender and Age group of the respondents |
|-----------------------------------------------|
| Gender | Frequency | Percentage | Cum % |
| Male   | 67        | 39.4%      | 39.4% |
| Female | 103       | 60.6%      | 100%  |
| Total  | 170       | 100%       |       |
| Age Group |        |         |       |
| Below 20 | 6      | 3.5      | 3.5   |
| 20-25    | 131     | 77.1     | 80.6  |
| Above 25 | 33      | 19.4     | 100   |
| Total    | 170     | 100      |       |

As displayed in table 4.1, out of 170 samples, the majority of 103 respondents were female, and 67 were male. Female comprises a total of 60.6 per cent, whereas male comprises of 39.4 per cent out of 100 per cent. Besides that, the data presented in table 4.1, shows that altogether, 6 respondents were below 20 years of the age group, 3.5 per cent out of 100 per cent. Similarly, out of 170 respondents, 131 participated in having their age 20-25, 77.1 per cent of the total respondents. Moreover, 33 respondents were having their age above 25. This is a total of 19.4 per cent of the total respondents. With this result, the age group between 20 and 25 has the highest participation.
Table 4.2: Operating system used by the respondents in their smartphone

| OS      | Frequency | Percentage | Cum % |
|---------|-----------|------------|-------|
| Apple   | 21        | 12.4       | 12.4  |
| Android | 149       | 87.6       | 100   |
| Total   | 170       | 100        |       |

As exhibited in table 4.2, Out of 170 respondents, 149 respondents use Android brand, which has the highest percentage of 87.6. Similarly, 21 respondents use the Apple brand, which is 12.4 per cent of the total sample. This result shows that around 87 per cent of smartphone users use Android Brand in their smartphone, followed by Apple.

Table 4.3: Opinion on buying decision of smartphone among respondents

| Questions                                      | No. | %  |
|------------------------------------------------|-----|----|
| Are you price sensitive customer?              |     |    |
| Yes                                            | 134 | 78.8|
| No                                             | 36  | 21.2|
| Total                                          | 170 | 100|
| Do you only buy a branded smartphone?           |     |    |
| Yes                                            | 155 | 91.2|
| No                                             | 15  | 8.8 |
| Total                                          | 170 | 100|
| Does the design influence you to purchase smartphones? | 134 | 78.8|
| Yes                                            | 36  | 21.2|
| No                                             | 170 | 100|

As displayed in table 4.3, out of the total, 78.8 per cent believe that the smartphone's price influences the buying decision among students. Only 21.2 per cent of the participants believed that price doesn't affect the buying decision. Likewise, 91.2 per cent of respondents agree that the brand influences the students' decision making while purchasing smartphones. However, 8.8 per cent do not agree that brand influences the buying decision of smartphones. Most of the respondents answered that design influence them to purchase smartphones with 78.8 per cent. However, 21.2 per cent of the participants does not believe that design influence to purchase smartphones.

Table 4.4: Opinion on priority of most important factor

| Features | Rank 1 | Rank 2 | Rank 3 | Rank 4 | Total | Weighted value | Weighted mean | Rank |
|----------|--------|--------|--------|--------|-------|----------------|---------------|------|
| Camera   | 54     | 44     | 25     | 22     | 50    | 170            | 434           | 2.55 | 4    |
| Storage  | 15     | 43     | 25     | 44     | 170   | 419            | 2.46          | 2    |
As apparent from Table 4.4, most of the respondents ranked Battery as their first choice with the mean weight value of 2.45. Similarly, Storage capacity is ranked two with the mean weight value of 2.46. Further, the RAM is ranked as the third important factor with mean weighted value of 2.52. And finally, the camera is ranked four as the least essential factor among the four alternatives with the mean value of 2.55 influencing students' buying decisions towards smartphones.

Table 4.5: Opinion regarding buying decision of smartphone

| Statements                                      | Responses | Percent of Cases |
|------------------------------------------------|-----------|------------------|
| I am willing to pay a high price if features are innovative and new. | 86        | 25.00%           |
| Only the branded smartphones have more features and quality | 43        | 12.51%           |
| I prefer long lasting battery life in smartphones. | 116       | 33.72%           |
| The camera is the most important for me.         | 99        | 28.77%           |
| Total                                           | 344       | 100.00%          |

As exhibited in table 4.5, 33.72 per cent believe that long-lasting battery life is significant in smartphones among all the respondents. Similarly, 28.77 per cent agrees that the camera is the most important in smartphones. Likewise, 25.00 per cent of respondents agree that they are willing to pay a high price if product features are innovative and unique in smartphones. Only 12.51 per cent of respondents have stated that only the branded smartphones have more features and quality.

Table 4.6: Survey on price

| Statements                                      | Ratings | Total response | Weighted value | Weighted mean |
|------------------------------------------------|---------|----------------|----------------|---------------|
| Increase of price doesn’t hamper me to purchase it. | 24 61 52 27 6 | 170           | 440            | 2.58          |
| The brand I use charges fair prices.            | 13 19 35 87 16 | 170           | 584            | 3.43          |
| I am willing to pay high price for smartphones with desired specifications. | 12 10 44 98 6 | 170           | 586            | 3.44          |
| Grand weighted mean                            |         |                |                | 3.15          |

As presented in table 4.6, the survey results of the statements related to price. It shows that the majority of the respondents with the weighted mean score of 3.44 strongly agreed with the
statement that ‘I am willing to pay high price for smartphones with desired specification’. Moreover, the respondents also agreed that ‘The brand I use charge fair prices’ with the mean weighted value of 3.43. Similarly, they also agreed the statement that ‘Increase of price doesn’t hamper me to purchase it’ by giving the mean weighted value of 2.58. The grand weighted mean for the statements related to price is found to be 3.15 which is the second highest weighted mean among independent variables.

Table 4.7: Survey on brand

| Statements                                                                 | Ratings  | Total response | Weighted value | Weighted mean |
|---------------------------------------------------------------------------|----------|----------------|----------------|---------------|
| Brand image of smartphone attracts me to purchase it.                    | SDA: 10  | DA: 24         | Neutral: 74    | 9             | 170           | 537           | 3.15          |
| I will consider the brand image when buying a smartphone, regardless of the higher price. | SDA: 18 | DA: 52         | Neutral: 60    | 28            | 170           | 474           | 2.78          |
| Branded smartphones have better features.                                | SDA: 19  | DA: 18         | Neutral: 21    | 90            | 22            | 170           | 588           | 3.45          |
| Grand weighted mean                                                      |          |                |                |               |               |               | 3.13          |

The data presented in table 4.7 reveals that majority of the respondents agreed with the statement that ‘branded smartphones have better features’ with the weighted mean value of 3.45. Similarly, another statement, ‘Brand image of smartphone attracts me to purchase it’ which was also agreed by most of the respondents with the weighted mean value of 3.15. The statement, ‘I will consider the brand image when buying a smartphone’, regardless of the higher price was also agreed by most of the respondents with the weighted mean values of 2.78. And the grand weighted mean for the independent variable, the brand is found to be third highest among other independent variables 3.13.

Table 4.8: Survey on product features

| Statements                                                                 | Ratings  | Total response | Weighted value | Weighted mean |
|---------------------------------------------------------------------------|----------|----------------|----------------|---------------|
| More features influence me to purchase a smartphone.                      | SDA: 6   | DA: 12         | Neutral: 36    | 85            | 31            | 170           | 633           | 3.72          |
| I am willing to pay a high price for innovative and new product features. | SDA: 6   | DA: 31         | Neutral: 52    | 68            | 13            | 170           | 561           | 3.30          |
Product features make smartphones distinctive and appealing.

Grand weighted mean

| Statement                                                                 | Ratings | Total Responses | Weighted value | Weighted mean |
|--------------------------------------------------------------------------|---------|-----------------|----------------|---------------|
| I will purchase smartphone of this brand again.                          | 18      | 12              | 41             | 77            | 22            | 170            | 583            | 3.42           |
| I will recommend smartphones of this brand to my friends.                | 0       | 12              | 34             | 95            | 29            | 170            | 651            | 3.82           |
| My smartphone is price effective.                                        | 0       | 13              | 43             | 74            | 40            | 170            | 651            | 3.82           |
| Grand weighted mean                                                      |         |                 |                |               |               |                |                | 3.69           |

Table 4.9 reveals that majority of the respondents agreed with the statement ‘I will recommend smartphones of this brand to my friends’ and ‘My smartphone is price effective’ with the weighted mean value of 3.82 Similarly, another statement, ‘I will purchase smartphone of this brand again’ with the weighted mean value of 3.42. And the grand weighted mean value for the dependent variable buying decision is found to be 3.69.

Table 4.10: Descriptive statistics for the all sample

| Variables            | Mean  | Median | Mode  | S.D.   | Variance | Minimum | Maximum |
|----------------------|-------|--------|-------|--------|----------|---------|---------|
| Price                | 3.15  | 3.5    | 3.33  | 1.00   | 1.01     | 1.00    | 5.00    |
| Brand                | 3.13  | 3.33   | 3.33  | 1.06   | 1.13     | 1.33    | 5.00    |
| Product features     | 3.49  | 3.66   | 4.00  | 1.02   | 1.05     | 1.00    | 5.00    |
| Buying Decision      | 3.69  | 4.00   | 4.00  | 0.92   | 0.88     | 1.66    | 5.00    |

Table 4.10 displays the result of descriptive statistics for the whole sample. The mean value, median value, mode value for the dependent variable buying decision is the highest among other variables with the mean value of 3.69, mid-value 4.00, mode value 4.00 followed by price, and
brand. The maximum value of the respondents' responses in the Likert Scale is found to be 5.00 for the variables: price, brand, product features and buying decision. Similarly, the respondents' answers in the Likert Scale are 1.66 for dependent variable and brand. Standard Deviation and variance are highest for the independent variable: the brand with the value of 0.80 in standard Deviation and 0.64 in variance followed by product features, and price.

### Table 4.11: Relationship between variables for all samples

|            | Price       | Brand       | Product Feature | Buying Decision |
|------------|-------------|-------------|-----------------|-----------------|
| Price      | Pearson     | 1           |                 |                 |
|            | Correlation  |             |                 |                 |
|            | Sig. (2-tailed) |             |                 |                 |
| Brand      | Pearson     | .160**      | 1               |                 |
|            | Correlation  |             |                 |                 |
|            | Sig. (2-tailed) | .000        | .009            | 1               |
| Product    | Pearson     | -.131**     | -.009           | 1               |
| Feature    | Correlation  |             |                 |                 |
|            | Sig. (2-tailed) | .003        | .848            |                 |
| Buying     | Pearson     | .055        | .128**          | .114**          |
| Decision   | Correlation  |             |                 |                 |
|            | Sig. (2-tailed) | .213        | .004            | .010            |

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

The table 4.11 characterizes the correlation analysis of the variables under study which is conducted for the whole sample. As shown in the table, the correlation for all samples between buying decision and brand is observed to be positive and significant at 99 percent confidence level with the correlation coefficient of 0.128. Similarly, the relationship between buying decision and product features is found to be positive and significant at 99 percent confidence level with the correlation coefficient of 0.114, which means the product features of smart phones influence the consumer to buy smart phones in a positive way. The correlation analysis shows that all the independent variables: price, brand and product features have positive and significant relationship in consumer buying decision towards Smart Phones.

### 5. CONCLUSION & RECOMMENDATION

According to the results of the ranking question, the battery was the most important component that influences smartphone purchasing decisions, followed by storage capacity and RAM. The camera was regarded as the least important aspect that impacts smartphone purchasing decisions. Similarly, the results of the Likert scale revealed that product attributes were regarded as the most essential and influential component in smartphone purchase decisions. Price, on the other hand, was regarded as the second most important consideration when acquiring a smartphone. In a similar way, the brand was regarded as the third most important influencing element in purchasing
decisions. The correlation analysis shows all the independent variables: price, brand and product features had positive and significant relationship in consumer buying decision towards Smart Phones.

The study has considered only three explanatory variables i.e., price, brand and product features in the entire study so future researcher can test the impact of other independent variables on purchase decision of smart phone consumers.

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