Factors Affecting Smartphone Purchase Intention of Consumers in Nepal

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Abstract

The main aim of this research paper is to identify the factors that influence smartphone purchase intention in the Nepalese market. The study identifies how the brand personality, attribute factors, and the price factor influence the purchase intention of a smartphone. The paper puts the emphasis on how the consumer preference functions in the selection of the smartphone and which factor plays the more significant role in smartphone purchase intention. This research paper has used primary data and a 7-point Likert scale survey questionnaire. The primary data has been collected through a structured survey questionnaire by using convenient sampling technique from 294 smartphone users in the Kathmandu Valley. Descriptive statistics, Correlation Analysis and Structural Equation Modeling (SEM) have been carried out to analyze the primary data using the SPSS AMOS 24. Brand personality, attribute factor, and product price were taken as independent variables to identify the impact on purchase intention. The result of the regression path analysis showed that brand personality has no significant effect on purchase intention in the purchasing of smartphone. It is also found that the product attributes and product price have a significant influence on consumer purchase intention of a smartphone in Nepal.

Keywords: Brand Personality, Attribute Factor, Price Factor, Purchase Intention, Smartphone

JEL Classification Code: C12, L94, L96, M31, Y10

1. Background of the Study

Purchase intention is linked to the behavior of consumer, attitudes, and expectation of consumers. The buying behavior is a key point for consumers to access and assess the individual product. The purchase decision can be influenced by the price of the product, perceived quality, and value of the product (Rai, 2020). The purchase decisions of customers are influenced by internal or external factors at the time of obtaining goods and services (Gogoi, 2013). Generally, consumers prefer the low price of products and good packaging, but they do not trust the quality of these goods (Gogoi, 2013).

Engel et al. (1995) presented the most recognized model of consumer purchase intention-forming process. This model is divided into five stages: (1) problem identification, (2) search for information, (3) alternatives evaluation, (4) purchase decision, and (5) post-purchase evaluation. It can be regarded as an impulsive buying behavior. Fishbein and Ajzen (1975) argued that the purchase intention is the real intention of consumer toward the products for buying.

Kotler (2003) shows that the purchase intention is influenced by the individual attitudes and unpredictable situations. Individual attitudes refer to the personal preferences toward others and obedience to expectations of others; unpredictable conditions mean that consumers change the decision to purchase since a situation appears (Dodds et al., 1991).

Warsaw and Davis (1985) said purchase intention is a person’s behavior under which consumers think about any particular product and what comes to their mind and what consumer would think or do when they purchase the same brand of product. There were strong tendencies for them to react by their past actions. Here, the consumers are likely to report their habit rather than a decision on responding to the buying. In spite of these issues, purchase intention to purchase is an important consumer behavior construct (Kotler & Armstrong, 2010).

Smartphone has become the integral part of each human daily life as the means of communication in the world. Every
personal use the smartphone, not only for communication purpose, but also for making daily life easier. Due to the development of innovative technology of the smartphone, the preference, needs, and purchase intention are changing (Mokhlis & Yaakop, 2012).

Osman et al. (2012) said that the technology of smartphone has been changing the behavior of the people, although, the research which has been carried out in different periods is still insufficient. There is a lacking of understanding of the consumer behavior toward smartphone buying. Moreover, the mobile phone industry is showing drastic changes in the telecommunication market. New models of smartphone with different features, price, quality, style, are launched in the market to gain competitive advantages. The smartphone market has been affected by the different factors in the buying decision.

Dyer and Ha-Brookshire (2008) said that today’s business environment is more competitive, turbulent, and fragmented. In this complex business environment, companies not only rely on marketing their products and/or services, but also focus on marketing efforts to satisfy customers. Companies are struggling to identify customer purchasing motivations and satisfy customers by meeting customer needs in the marketplace. Thus, it is important to understand the factors that influence purchase intention of consumers toward the smartphone.

2. Literature Review and Hypotheses

2.1. Brand Personality

Brand personality factor plays a significant role in the development of the perception and expectation of the customer’s behaviors towards the product and the company (Shavitt, 1989). Brand personality influences consumer judgments of the consumers in the purchase intention (Biel, 1992). Lee and Kang (2013) found that a consumer-brand relationship and choice of a brand are affected by the brand personality.

Riyas and Hearth (2016) investigated the effect of brand personality dimensions on purchase intention toward the branded umbrella in Sri Lanka. Researchers found that the dimensions of brand personality like ruggedness and excitement have positive significant impact on purchase intention, but competence, sincerity, and sophistication have not significant impact on the purchase intention.

Mulyanegara and Tsarenko (2009) showed that there is a significant positive relationship between brand personality and brand choice. Others researchers have documented the positive significant influence of the brand personality on the attitudes of customers toward the brand (Jamal & Goode, 2001; Sirgy, 1982).

Roustasekehravani et al. (2014) showed the impact of brand personality on satisfaction and brand loyalty. The researchers have shown that the result provides important insights into the effect of brand personality in creating satisfaction and brand loyalty in building a competitive advantage in the market. Freleng and Forbes (2005b) described that brand has been a cornerstone in case of marketing strategies and brand personality concept, and its impact on consumer behavior is known as a remarkably important topic in different studies.

Hardjono and Teng (2019) showed that brand personality like competence, sincerity, ruggedness, and sophistication have a positive significant impact on preference in sportswear brand choice, but the personality of excitement components are not proven to have significant influence. Borzooei and Asgari (2013) were conducted conceptual review research to identify the level of impact of three significant dimensions of brand personality on the purchase intention. They also found that the brand personality effect on a purchase intention.

Vahdati and Nejad (2016) investigated the effect of brand personality on consumer purchase intention. The researchers found that the brand personality, word-of-mouth, and brand equity have a positive significant effect on customer’s purchase intentions. De la Paz Toldos-Romero and Orozco-Gomez (2015) conducted a research on brand personality and purchase intention. They found that all the variables of brand personality have significant impact on the purchase intention toward the six different brands of goods among the students in Mexico.

Mao et al. (2020) identified the factors affecting the purchase intention of smartphone in China. They found that brand personality, brand image, brand identity, and flow of experience directly influence to purchase intention. Kim et al. (2011) confirmed that the brand personality has a significant role in the customer brand loyalty and purchase intention in the hospitality marketing. Bouhlal et al. (2011) conducted a research to identify the factors affecting the purchase intention toward the mobile phone. The researchers found that the brand personality positively influence the brand trust, brand commitment, and brand attachment. Therefore, the following hypothesis is suggested:

H1: There is positive significant impact of brand personality on purchase intention of smartphone.

2.2. Attributes Factors

Udin et al. (2014) found that the most important factor is physical attributes for a consumer buying decision. Some other factors like pricing, charging, operation facilities, size and weight, recommendations of colleagues, and advertising have a significant influence in consumer buying decision of mobile phone.

Lavuri et al. (2019) investigated the preference of buyers of branded smartphone device. They found that price,
brand name, mobile features like processing power, design, camera, and style of mobile have a significant influence in the consumers' buying preference toward branded mobiles.

Nair et al. (2016) conducted research on the consumer brand preference toward the mobile phone. They found that quality is a more important factor in the choice of branded smartphone. The features of the smartphone like touchscreen, design, and style also have a significant effect on the choice of the device.

Sujata et al. (2016) examined five factors taken into consideration for the research work, like hardware factors, technology factors, basic factors, financial factors, and brand factors. The findings revealed that the features of technology factors, OS version, and hardware factors have a positive significant impact on the choice of young students when buying a smartphone. Guleria and Parmar (2015) stated that consumers considered user-friendliness and speed of processing to be major building-preference factors, followed by technological needs and applications in the buying decision.

Lazim and Sasitharan (2015) identified the factors, which encourage the consumer for buying a smartphone. The researchers found that the attributes of the mobile phone like high-speed processing system, style, smoothness, price, brand, application, software, and convenience factors have influencing roles that affect purchase intention of the smartphone. Rahim et al. (2016) examined the factors affecting the mobile purchase intention. They found that there is a positive significant influence of brand image, social factors, product attributes factors, and product sacrifice on purchase intention of smartphone.

Ayodele and Ifeanyichukwu (2016) identified the factors affecting smartphone purchase intention among young consumers in Anambra State, Nigeria. Researchers found that the aesthetic value of smartphone and features of smartphone have significant influence on the purchase intention among young consumers.

Elammari and Cavus (2019) identified the factors affecting the purchasing behaviors of the students in the buying of smartphones. Price, brand image, product features, and social influence were taken as independent variables to understand the effect on purchasing behavior. Researchers found that product features, brand image, and social factors influence to the purchasing behavior in the choice of smartphone, but price did not influence purchasing behavior.

Nguyen et al. (2019) examined the factors determining the repurchase intention toward organic cosmetics products. They found that safety values, product knowledge, environmental protection consciousness, and customer satisfaction have positive effect on repurchase intention toward organic cosmetics. So, it suggested the following hypothesis:

H2: There is positive significant impact of attribute factors on purchase intention of smartphone.

2.3. Price Factors

Dhanabal (2018) argued that the price factor, brand image, design, quality, technical considerations, and perceived value have a significant influence on purchase intention. It was stated that all these factors are considered by consumers during their buying of cars. Researcher concluded that all these factors have compelled the customers to buy the car. Kumari and Kumar (2016) explored the effect of mobile phone attributes on the consumer buying decision. They found that the technical features of the mobile phone and looks, image and resource, entertainment have a significant role in the choice of the mobile phone. Price has a significant influence on the consumer’s purchase intention in the buying of mobile phone.

Rahman et al. (2020) conducted a research to identify the factors affecting use of social commerce in Indonesia. They found that social factors, hedonic motivation, price value factor, habit, and privacy factors have significant influence on behavioral intention. Moreover, price value has a significant positive influence on behavioral intention. Price has been found to have a significant influence on purchase intension in many previous studies (Lay-Yee et al., 2013; Ibrahim et al., 2013). Dam (2020) explored the impact of brand trust, perceived value on brand preference, and purchase intention. The result of the study found that the brand trust and perceived value like price have significant positive influence on purchase intention and brand preference.

Chow (2011) did a research to identify the driven factor in the purchase intention. Price factor was found to be the most powerful factor effecting on purchase intention of smartphone. Sata (2013) did a research to understand the consumer buying behavior of mobile phone in Hawassa town, Ethiopia. He used six factors, namely, brand name, product features, social factors, price, durability, and after-sale service as independent variables to understand the consumer buying behavior of mobile phones. The researcher found that price of the mobile phone has strong effect on the purchase of consumers and followed by the features of the mobile phone than compare to others in the buying of mobile phone.

Paulraj et al. (2011) endeavored to understand the perception choice of Indian consumers when selecting mobile cellular devices. Research findings stated that price of the smartphone, functions of smartphone, and quality of smartphone play a significant role in the smartphone’s purchase intention. However, the study also indicated that the quality and availability of mobile phones also play an important role in the perception of consumers when selecting mobile phones.

Ngo et al. (2019) investigated the factors influencing students’ buying decision toward fresh milk in Vietnam. The findings of the study were that customer service, promotion, product convenience, reference groups, product quality,
and price have significant impacts on the buying decision of students toward fresh milk. Therefore, it is suggested the following hypothesis:

**H3:** There is a positive significant impact of price factors on purchase intention of smartphone.

### 3. Research Objectives

The basic objective of the research is to identify the factors affecting the purchase intention of smartphone in the Nepalese market. Following are the specific objectives of the study;

- To identify the impact of brand personality, attribute factors, and price factor on purchase intention of smartphone in the Kathmandu Valley.

### 4. Conceptual Framework

Based on the previous researchers’ studies, various variables were used such as sales promotion, point-of-purchase advertising, product features, product quality, product price, substitute product’s price, easy recognition, brand personality, reference group, gender, brand, customer’s economic level, and perception of consumers to measure the purchasing behavior of consumers. In this research brand personality, attribute factors, and price factors are considered as independent variables and the dependent variable is purchasing decision.

On the basis of the literature reviewed in the field of purchase intention, the following research framework has been developed to undertake the study in a systematic manner.

### 5. Research Methodology and Data Analysis

The research paper focuses to investigating the impact of brand personality, attribute factors and price factor on consumer’s purchase intention. The study is based on the post-positivism epistemology, which seeks objectivity by the logical reasoning and has controlled structured methodology with the pre-determined hypothesis.

Nepalese people who reside in Kathmandu valley is the sample for the research. So, the population of the study is the people who use a smartphone in the Kathmandu. The study has been used the primary data with a 7-point Likert scale survey questionnaire. Information about the retention factors has been collected from primary sources by using convenient sampling. The structured questionnaire has been used to collect the required data for undertaking the proposed study. The sample size for the study is 294 respondents. Descriptive analysis was used to describe the characteristics of the observed data. Mean and standard deviation have been calculated to describe the situation. Correlation analysis has been carried out to examine the relationship between independent variables and purchase intention. Factor loadings were checked by using the exploratory factor analysis (EFA), and reliability and validity were checked through confirmatory factor analysis (CFA). Structural Equation Modeling (SEM) has been used to examine the impact of independent variables on purchase intention through SPSS AMOS 24.

![Conceptual Framework](image1.png)
6. Data Analysis and Result

6.1. Descriptive Statistics and Correlation Analysis

All variables were rated on the behavior decision scale with the score of 1 ‘strongly disagree’ and 7 ‘strongly agree’. Table 1 indicates that the mean score of brand personality, attributes factor and price factor are 5.92, 5.78, and 5.40, respectively. The effect of these three independent variables on purchase intention of smartphone in the Nepalese market is 4.81, which is measured as the mean score of the purchase intention. It means most of the respondents are inclined to be agreeing on purchase intention, and it is concluded that three independent variables have a significant influence on the purchase intention.

Table 1 describes the correlation matrix between variables under investigation. It shows that there is significant positive correlation between brand personality and purchase intention \((r = 0.337, p < 0.000)\), attribute factor and purchase intention \((r = 0.533, p < 0.000)\), and price factor and purchase intention \((r = 0.527, p < 0.000)\) for buying smartphone in the Nepalese market. All the \(p\) values are significant \((p < 0.05)\). So, there is a significant relationship between independent variables and purchase intention. The result shows that there is a high positive significant correlation between attribute factor and purchase intention, and between product price and purchase intention, and there is a low correlation between brand personality and purchase intention of consumers in the buying of smartphone in Nepalese market.

6.2. Exploratory Factor Analysis

Exploratory factor analysis has been carried out to examine the validity of the constructs. The factor loadings of each construct were found ranging from 0.671 to 0.915. All values of each construct are more than 0.5, which is the cut-off point suggested by Hair et al. (2010). KMO statistics value was 0.904 and the value of \(p\) also less than 0.05 \((p<.05)\), which suggested that factor analysis is appropriate because the value of KMO must be greater than 0.6 (Kaiser & Rice, 1974).

6.3. Confirmatory Factor Analysis

A confirmatory factor analysis has been carried out to validate the result from the exploratory factor analysis. CFA was conducted using SPSS AMOS 23 in the sample size of 294. The model fit criteria suggested by (Byrne, 2010; Hair et al., 1998) were used for the measurement model; Root Mean Square Error of Approximation (RMSEA), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Goodness-of-fit Index (GFI), Normed Fit Index (NFI) and Incremental Fit Index (IFI).

Structural Equation Modeling has been used to examine the hypotheses. Before examining the hypotheses, the model fit indices have been checked. To assess the overall model, multiple fit indices have been presented in the following table.

Table 2 indicates the value of CMIN/DF is 2.048, which is less than the recommended value by Byrne (2010) and Hair et al. (1998). So, this model is considered acceptable. The value of Root Mean Square Error of Approximation (0.060) is in the range of recommended values less than 0.8. The value of GFI, IFI, CFI, NFI, and AGFI is in the range of recommended cutoff values by Byrne (2010) and Hair et al. (1998). So, all the above values of model fit are within the recommended range of acceptability values. Therefore, it seems to be feasible to carry out the analysis of the result of the structural model.

6.4. Validity and Reliability

Structural Equation Modeling (SEM) has been carried out for the analysis of the structural model and measurement. Multiple items were measuring constructs.
Table 3: Overview of Reliability and Validity Measures

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>PFA</th>
<th>BPA</th>
<th>AFA</th>
<th>PIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFA</td>
<td>0.921</td>
<td>0.703</td>
<td>0.674</td>
<td>0.942</td>
<td>0.838</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>BPA</td>
<td>0.883</td>
<td>0.716</td>
<td>0.333</td>
<td>0.889</td>
<td>0.577</td>
<td>0.846</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFA</td>
<td>0.969</td>
<td>0.912</td>
<td>0.674</td>
<td>0.972</td>
<td>0.821</td>
<td>0.383</td>
<td>0.955</td>
<td></td>
</tr>
<tr>
<td>PIA</td>
<td>0.964</td>
<td>0.843</td>
<td>0.305</td>
<td>0.968</td>
<td>0.552</td>
<td>0.399</td>
<td>0.551</td>
<td>0.918</td>
</tr>
</tbody>
</table>

The appropriateness of the instrument reliability, average variance extracted, composite reliability and discriminant validity and convergent validity were tested before testing the model. The results of the tests are as bellows;

The reliability and validity of the study were assessed. Composite reliability (CR) for the CFA model has been carried out to measure the reliability of the constructs in the measurement model. Regarding the convergent validity, the value of average variance extracted (AVE) must be greater than 0.5 (AVE > 0.5), the value of composite reliability (CR) must be greater than 0.7 (CR > 0.7) and the value of composite reliability (CR) must be greater than the value of average variance extracted (AVE) (Bagozzi & Baumgartner, 1994). The results on Table 3 showed that all the values of AVE are greater than 0.5, the values of composite reliability (CR) are greater than 0.7, and the values of CR are greater than AVE. So, it is found that there is existed convergent validity.

Regarding the discriminant validity, the AVE must be greater than maximum shared variance (MSV), and AVE must be greater than inter-construct correlations (Fornell & Larcker 1981). The result of the study showed that AVE > MSV and the values of AVE are greater than MSV (AVE > MSV). So, all the above values confirmed the criteria of discriminant validity. There is no validity concern in Table 3.

6.5. Structural Model of the Study

The structural model has been calculated for the empirical measure of the hypothesized relationship among the research variables and constructs through the simultaneous test. The structural model can be examined by two indices. The first is the coefficients of path (β) that shows the relationship between the dependent and independent variables, and the second is the values of $R^2$ that shows the value of variances explained by independent variables and reflects the predictive power in the model. The results of the multivariate test of the structural model showed that the brand personality, attribute factors and price factor as a whole explained 39% of the variance in the purchase intention of smartphone.

Figure 2 showed the path diagram with the structural model estimating the paths, where the estimate parameters are standardized path coefficients and two path coefficients are significant at the 95% level and one path coefficient is not significant.

The statistical results shown in Table 4 study clearly indicated that the brand personality has no significant influence on purchase intention of smartphone buying ($β = 0.12$, p = 0.08), which did not support the hypothesis (H1). This result confirmed that there is no significant influence of brand personality on purchase intention in the buying of smartphone. Next, there was support for hypothesis (H2) indicating that attribute factor influences on purchase intention of smartphone ($β = 0.30$, p = 0.00). Hypothesis (H3) is also supported as the price factor is the most significant factor in explaining the purchase intention of the smartphone ($β = 0.26$, p = 0.02). This result confirmed that there is a significant impact of price factor and attribute factor on purchase intention of smartphone and there is no significant influence of brand personality on purchase intention of smartphone in Nepal.

7. Discussion and Implications

This research identifies the impact of brand personality, attribute factors, and price factor on the consumers’ purchase intention of smartphone in Nepal. This research provides both theoretical and practical contributions.

The result of the research found that the brand personality has no significant impact on the purchase intention of smartphone. So, the hypothesis is not supported by the finding of some prior studies. This finding is inconsistent with Mulyanegara and Tsarenko (2009), Biel (1992), Lee and Kang (2013) that there was a strong positive relationship between brand personality and brand choice and purchase intention.

The result of estimation of the structural model showed that the hypotheses H2 and H3 were supported. The result of the research showed that the attributes of the smartphone influence the purchase intention of consumers. This finding is consistent with Rahim et al. (2016), Lavuri et al. (2019), Udin et al. (2014) that there is a significant influence of attribute factors on purchase intention of smartphone. Similarly, statistical results of the SEM analysis found that the price factor has a significant influence on the purchase intention of smartphone. This result is also consistent with the previous findings by Ngo et al. (2019) and Chow (2011) that there is a significant influence of price factor on purchase intention of Smartphone.
The findings of the research will also provide theoretical guidance to the practitioners and researchers. The implications are also important for marketers in the field of smartphone. The results of the research paper provide new theoretical insights into the influential factors affecting purchase intention of consumers. The result of the study can be applied as a practical marketing tool for the marketing manager to formulate marketing strategies. The result of the research confirmed that, in the comparison of product price, there is an important role of attribute factor, and the brand personality has no significant role on the purchase intention of consumers of smartphone. Hence, it would be helpful to smartphone companies for designing marketing strategies and how to enhance the consumer’s purchase intention. Further, it provides important suggestions to companies on brand personality, attributes perception, and price perception issues.

### 8. Conclusions

This study examined the impact of brand personality, attribute factors, and price factor on consumer’s purchase intention of smartphones. The structural equation modeling (SEM) has been used to analyze the data. Hypothesis H1 was not supported by the result of the study. So, it is concluded that the brand personality has no significant effect on consumer’s purchase intention of smartphones in Nepal. The results of the research paper support hypothesis H2 and hypothesis H3. So, it is concluded that the attribute factors and price factor have a significant effect on consumer’s purchase intention the Smartphone buying in Kathmandu Valley. Attribute factors have a strong effect on the consumer’s of purchase intention on Smartphone buying and followed by the price factor. Lastly, it is concluded that the attribute factor and price factor have the influencing role for purchase intention,
but brand personality has not a significant influence on the purchase intention for the buying of smartphones in Nepal.

References


