Analysis of Factors Influencing Consumer Purchase Decision of Cellular Phones

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Abstract

In India, obsession towards cellular phones is increasing continuously. India holds second place in number of cellular phone usage, with the number of 1276660000.Cellular phones have brought immense change in people's lives, starting from a common man to entrepreneurs. Cellular phone is growing rapidly as a communication tool due to its reach, easy access and cost. In the present scenario, deciding a perfect cellular phone according to our own requirement is quite difficult. Purchasing is not negligible exchange of product from a seller to consumer. Consumers consider purchasing cellular phone as happy affair. They might want to touch, feel and see the phone, and also they want to know more details of the particular choice of their own. There are various internal and external factors which affect consumers purchase decision on mobile phones. There are various studies conducted based on the analysis of factors influencing consumer purchase decision on cellular phones.In this research, the factor which highly influences the cellular phone purchase decision is analyzed. The data will be collected from 300 participants using a structured questionnaire to analyze the highly influencing factor on purchase decision.

Keywords: Cellular Phones, Purchase Decision, Consumer Behavior

Introduction

Communication through cellular phone has made a significant impact towards interaction among people. Expansion of communication technology such as cellular phone, Global positioning system (GPS) and wireless internet are continuously evolving and advancing as a result of changing preferences and needs of consumers (*Rahim, et. al, 2016*). Popularity of phone increases day by day among people at all levels, especially among college students (*Falayi, et. al, 2014*). Nowadays, dependency of phones is associated with anxiety among students (*Kyung Eun Lee, 2014*). People get connected with their family and friends through social networking web sites using cellular phones (*Suki, Norazah Mohd, 2013*). Nowadays cellular phones are addressed as 'smart phone', since they provide highly advanced connectivity compared to older

cellular phones and computing power (*Lim, et. al, 2012*). Smart phones have become integrated part of people's lives due to their powerful applications, e-mailing, online shopping and banking, and bill paying (*Barot, et. al 2014*). The rapid advancements in technology have offered higher cost-effective ways for marketers to market their products (Zernigah, et. al, 2012).

Cellular phone market is highly-turbulent, due to the increasing competition and change.Hence, consumers are having high concern regarding technologies that may change their own devices from time to time.The phones are easily replaceable due to the rapid improvements in technology. Therefore, it is highly important to analyze the actual affecting purchase behavior of consumers. Numerous evidences are available that consumers select their phones based on the following factors such as price, brand name, features, social influence, easy handling, durability, size, appearance, etc. (*Naser Azad & Maryam Safaei, 2014*). Thus, it is a major concern of every cellular manufacturing industry to look at consumer purchase decision and cast light on influencing factors that finally define and determine the consumer choice among different cellular phone brands. Hence, the research will focus on analyzing the factor capable of highly influencing consumer purchase decision of cellular phones in Patiala city.

Review of Related Literature

Das Debadutta, 2012 carried out research to find out mobile phone buying behavior of young youths in coastal districts of Odisha. Research was carried out by empirical method based on survey. The survey results obtained by carrying out percentage test, chi-square test and Paired T-test model, had revealed that people bought mobile phones in credit system.

Karen Lim Lay-Yee, et. al, 2013 researched on the factors affecting mobile phone purchase decision of Malaysian generation and their association with convenience concern, price concern, product, brand concern and social influence concern. This study revealed that marketers have to understand the purchase decision of consumers to become more competitive.

Owusu Alfred, 2013 conducted a research on influence of price and quality on consumer purchase in Kumasi. The data was collected through personal interview, questionnaire and pricelist of the chosen mobile phones. The study had revealed that both price and quality having high influence on consumers purchase decision.

Uddin, et. al, 2014 conducted a study on factors affecting buying decision of customers in Khulna city. Participants in the study were selected by convenient sampling method. Research was carried out using structured questionnaire.Using factor analysis method, the factors affecting buying decision were identified. Identified factorsare physical attributes, followed by price, size, charging facility, operating facility, weight, recommendations of friends and colleagues and advertisements.

Deepa Guleria, 2015 conducted research on preference of consumers for smart phone in Himachal Pradesh. The identified factor was various usability features of mobile phone, which was observed from 80 participants.

M. Aftab Uddin, et. al, 2015 researched on factors affecting buying decision of mobile phones. Through the literature survey, 21-item instrument was designed. Reliability, Kaiser-Mayer-Olkin (KMO), and Bartletts' tests were carried out to analyze the data collected from 432 participants. Identified major factors wereuniqueness, social identity, brand image, physical attributes, ease of operation and price.

Tariq bhatti, 2015 explored the factors influencing mobile commerce. In the research, technology acceptance model was extended. Factors relationships such as perceived ease of use, personal innovativeness, subjective norms, behavioral control and subjective norms, were modeled. Regression analysis was used to validate the empirical data. Subjective norms behavioral control influence perceived ease of use, which is capable of affecting their purchase intention.

Joshi Sujata, 2016 presented study on factors capable of affecting consumers on purchase decision. The identified factors from 306 participants were technology factors, hardware factors, basic factors, brand factors and financial factors.
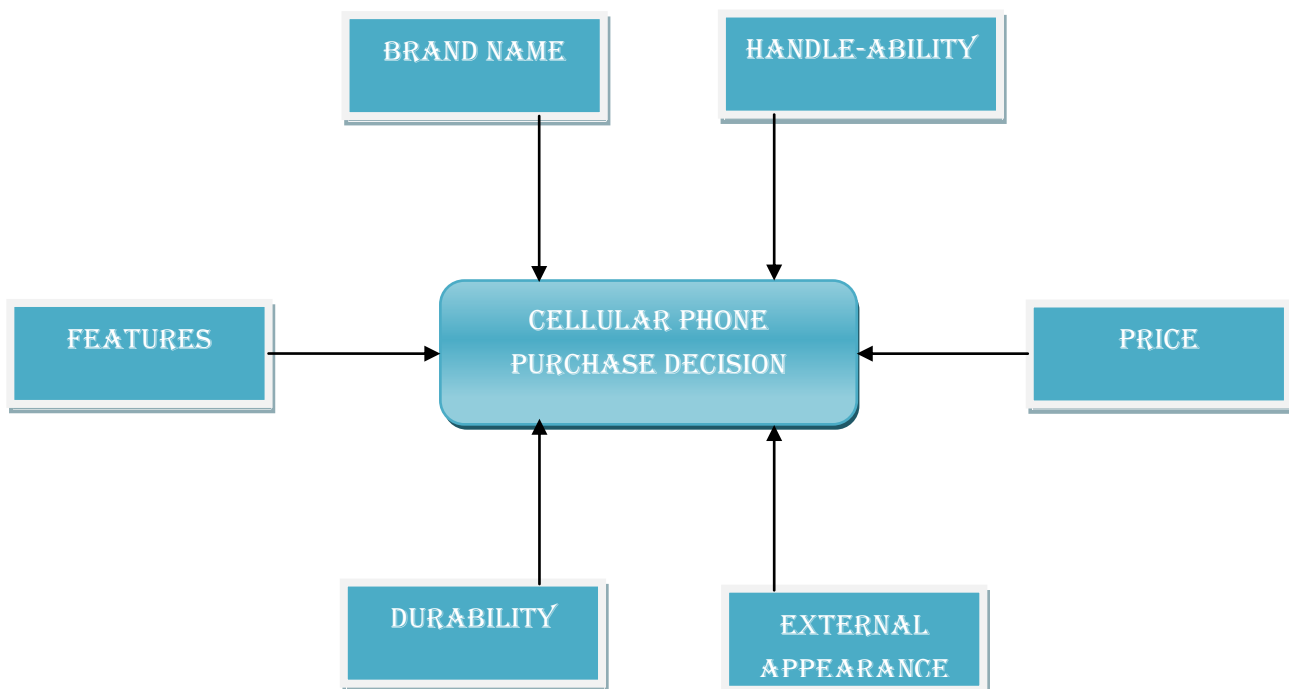
Research Framework

Fig. 1 Framework

Objective of the Study

- To analyze the factors influencing on consumer purchase decision in cellular phones.

Hypothesis

H_{01}: Price of the cellular phone does not have significant impact on consumers purchase decision.

H_1: Price of the cellular phone has significant impact on consumers purchase decision.

H_{02}: Cellular phone features do have positive influence on consumers purchase decision.

H_2: Cellular phone features have positive influence on consumers purchase decision.

H_{03}: External appearance of cellular phone has positive influence on consumers purchase decision.

H_3: External appearance of cellular phone does not have positive influence on consumers purchase decision.

H_{04}: Durability of the cellular phone does not have significant impact on consumers purchase decision.

H_4: Durability of the cellular phone has significant impact on consumers purchase decision.

H_{05}: Brand mane of cellular phone has positive influence on consumers purchase decision.

H_5: Brand name of cellular phone does not have positive influence on consumers purchase decision.

H_{06}: Handle-ability of the cellular phone has significant impact on consumers purchase decision.

H_6: Handle-ability of the cellular phone does not have significant impact on consumers purchase decision.

Research Methodology

The main motive of the research is to analyze the highly influencing factor for cellular phone purchase decision in Patiala, Punjab. In Patiala, most of the people are working in various government/non-government organizations. The total sample size is 300. Both qualitative and quantitative were utilized in this study. Primary data is the source of qualitative data. Both primary and secondary data are the sources of quantitative data. The collection of primary data was carried out using a prepared questionnaire, which was subjected to testing to ensure the quality of the questionnaire.

In order to meet the specific research objective, both qualitative and quantitative data were analyzed. The data analysis method utilized in this study is mentioned as follows:

1. Descriptive statistics
    i. Frequency distribution
    ii. Graphs
    iii. Chats
    iv. Cross tabulation
2. Inferential statistics
    i. Correlation and Multiple regression analysis

The research significance was elicited using correlation and multiple regression analysis. The analysis of data was carried out using tools (1) and (2).

1. Statistical package for social science (SPSS)
2. Microsoft Excel

Results and Discussion

In the survey, totally 300 questionnaire were circulated to selective mobile shops in Patiala. The basic demographic profile of participants is explained in the table 1.

S. No	Parameter	Number	Percentage
1	Age a. 18 or less b. 18-25 c. 26-35 d. 35 or more	 48 120 105 27	 16 40 35 9
2	Gender a. Male b. Female	 177 123	 59 41
3	Education a. Secondary school b. Diploma c. Degree d. Above Degree	 37 45 192 26	 12.4 15 64 8.6
4	Occupation a. Employed b. Unemployed c. Self-Employed d. Student	 158 8 32 102	 52.7 2.7 10.6 34
5	Marital status a. Single b. Married c. divorced	 114 179 7	 38 59.7 2.3
6	Income a. 10000 or less b. 10000-20000 c. 20000-30000 d. 30000-50000 e. 50000 or more	 42 106 89 59 7	 14 35.3 29.7 18.7 2.3

Table.1 Demographic profile of participants

From the table 1,

The highest number of participants participated in the study is listed as follows:

- While considering age, around 40% participants are coming under the age group of 18-25.

- In case of Gender, around 19% participants fall within male category.

- In case of education, 64% participants are degree holders.

- In case of occupation, 52.7% participants are employed.

- While considering marital status, 59.7% participants are married.

- In case of income, the highest number of participants (35.3%) has come under 10000-20000.

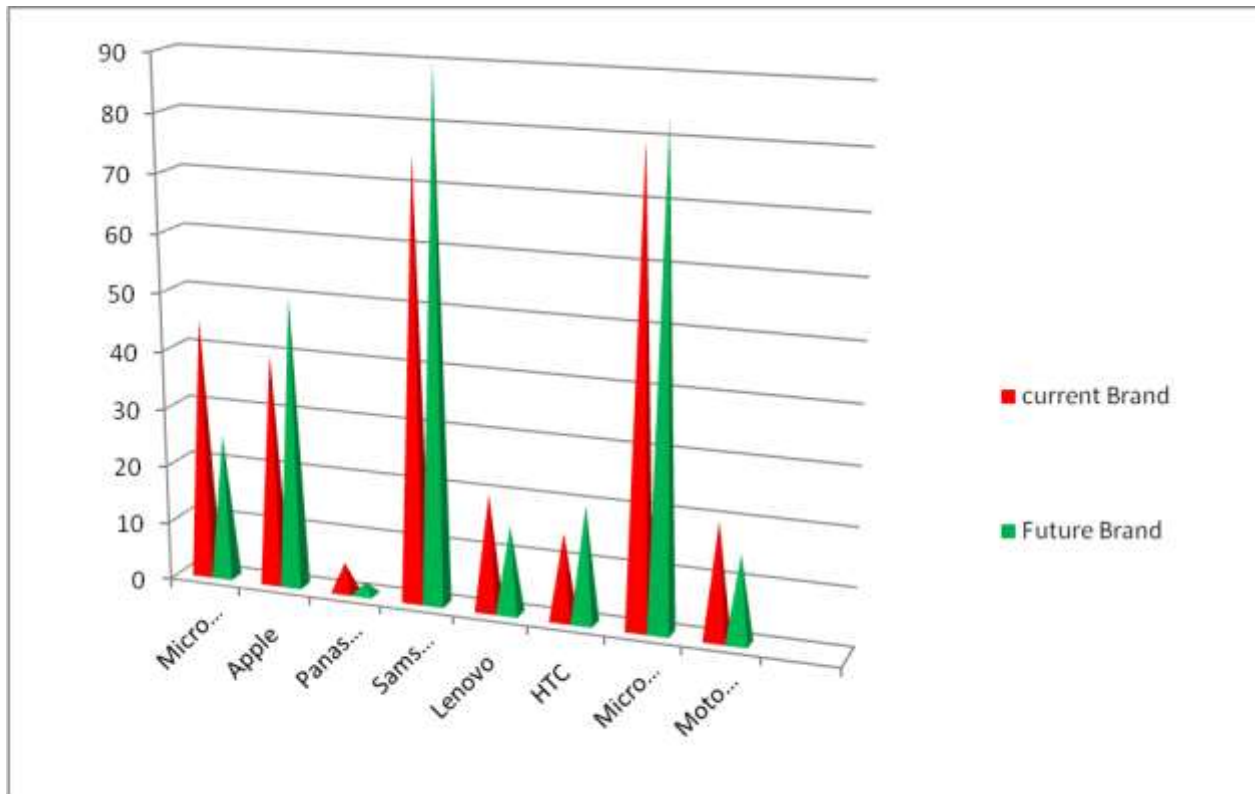**Analysis of Cellular phones owned by our participants:**

Fig.2 Cellular phone usage by participants

The figure explains the brand usage our participants during the research, and also brand which they are planning to change in near future.The cellular phones presently used by our participants are listed in the following order: Micromax, Samsung, Microsoft, Apple, Motorola, Lenovo, HTC and Panasonic, respectively. The brand used by highest number (80) of our participants is *Micromax*. 1/4th Participants were using *Samsung*.And importantly, the brand suggested or mentioned by highest number of participants as future band is also *Samsung*.Even though the popular brand of the present situation is *Micromax*, the brand which is going to rule the mobile in future is *Samsung.* At present, the cellular phone that owned least by the participants is *Panasonic*. After the brand *Nokia*, the phone which is going to rule the mobile world is *Samsung,* due to its quality and innovation. The most earned name of Samsung is '*innovative cellular phone manufacturers'*. In both present and future, the *Samsung* and *Micromax*take first and second place alternately, due to their features, durability and availability to the all level of users i.e. lower-higher end. When comes to the third category, the brand owned and accepted as future brand is *Apple*.*Apple* maintains its brand name due to its software and applications. The only drawback is higher cost, such that every consumer cannot afford that phone. Remaining phones are losing their market value day by day due to their poor performance. Finally the market is promising only for the brands such as *Samsung, Micromax* and *Apple*.

Descriptive Analysis of Independent Variables

S. No	Variables	Frequency	Mean	Standard Deviation
1	Price	300	3.422	0.90862
2	Durability	300	3.3822	0.85174
3	Features	300	3.0285	0.88511
4	External appearance	300	3.4478	0.84036
5	Brand Name	300	3.6009	0.85031
6	Handle-ability	300	3.447	0.78492

Table. 2 Descriptive Analysis

The descriptive statistics results of independent variable are shown in the following table 2. The primary factor having highest mean value is brand name (3.6), followed by external appearance (3.448), handle-ability (3.447), price (3.422) and features (3.028). The two factors with least value are features and durability. The results explain that the performance of each variable is highly depending upon the expectations of consumer. While considering altogether, the means results resemble the same with the little variations.

Pearson correlation Test

S. No	Variable		Purchase Decision
1	Price	Pearson correlation Sig. (2-tailed) N	.816** .000 300
2	Durability	Pearson correlation Sig. (2-tailed) N	.557** .000 300
3	Features	Pearson correlation Sig. (2-tailed) N	.900** .000 300
4	External Appearance	Pearson correlation Sig. (2-tailed) N	.555** .000 300
5	Brand Name	Pearson correlation Sig. (2-tailed) N	.461** .000 300
6	Handle-ability	Pearson correlation Sig. (2-tailed) N	.454** .000 300
** *Correlation is level (2-tailed significant at the 0.01)*			

Table. 3 Pearson correlation test results

The table 3 shows the correlation between 6 variables such as price, durability, features, external appearance, brand name and handle-ability. All the 6 factors have positive influence and the significant impact on the consumers purchase decision. However the correlation degree among the 6 factors with each other depends on the highest correlation value of features (0.900), followed by price (0.876), durability (0.557), brand name (0.464) and external appearance (0.454). From the results, it is evident that features of the cellular phone highly influence consumer purchase decision. In the present scenario, the features of the cellular phone are mentioned as follows:

- Wi-Fi
- Bluetooth
- Operating system
- Video/camera pixel rate
- Front and back camera
- Touch sensitivity
- Touch screen
- Storage
- Speed
- Version update

All the above factors have high influence in purchase decision. Nowadays irrespective of the price, people are looking for feature of the cellular phones, due to the major advancements in information and communication technology.

Multiple Regression Analysis

S. NO	Model	Unstandardized Coefficients		standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(constant)	-.694	.225		-3.809	.003
1	Price	.407	.097	.334	4.183	.000
2	Durability	.112	.062	.107	1.826	.042
3	Product feature	.589	.084	.525	7.028	.000
4	External appearance	.039	.069	.304	.569	.571
5	Brand Name	.066	.053	.062	1.263	.211
6	Handle-ability	.020	.054	.018	.381	.705

Table.4 Multiple Regression Analysis

Dependent Variable: Purchase decision

R Square: 0.882

Adjusted R Square: 0.880

In our study, totally there are six independent variables capable of influencing consumers purchase decision on mobile phones. Multiple regression is used in order to test influence of these variables on purchase decision. The table 4shows the result of multiple regression between independent variables and purchase decision. The significance value has to be lower than 0.05. The significance value for the three independent variables such as price (0.000), durability (0.042) and product features (0.000) are less than 0.05. Hence the alternate hypothesis is accepted, and the null hypothesis is rejected. The significance value for the other three independent variables such as external appearance (0.571), brand name (0754.211) and Handle-ability (0.705) are more than 0.05. Hence the null hypothesis is accepted, and the alternate hypothesis is rejected.From the test result it is evident that all 6 factors highly influence purchase decision of customers as a combination. The major factor capable of extremely influencing is features of cellular phone, followed by price and durability.

The value of adjusted R2 is 0.88, which indicates that 88% variances in buying decision of consumers can be predicted using the above mentioned 6 variables in this study. In the same way, there are other different variables which may influence the buying decision of consumers presented by the remaining 12%. But the major of the variance in the buying decision of consumers can be predicted by the variable used in this study.

Findings of the Study

The main idea of this research is to analyzethe factorscapable of influencing purchase decision of consumers on cellular phones. The study revealsthat higher number of the participants will consider product feature as a primary factor. Cellular phone manufactures have to study on features that the users demand for, e.g. camera with higher image resolution, operating system which is better and fast and any innovative product features for both software and hardware. By the improvement in product feature and by providing what is highly demanded, it may help cellular phone manufactures to improve their profit and sales.However, the cost of the cellular phone is also significant. But the price of the phone varies to consumer consideration. This clearly indicated that, the cellular phone provider has to manufacture phone with high-end features, users will definitely purchase even if it is costly.

The other factors are also correlated equally with each other. Nowadays cellular phones have tremendous improvement in the functionality due to its features. Generally people are looking for the durability, brand name and handle-ability, only after deciding features and price. So, each cellular phone manufacturing industry has to produce a handy phone with excellent functionality. It can be accomplished only when the cellular phone has extraordinary features. Most of the people will never look for price, when it has very

good features. Even developing and developed industries should consider this in mind, while designing cellular phone. Due to which, the market value of particular organization will grow in turn people also can get benefited out of it.

Future research has to be done by increasing the number of variables, framing different context, and over bigger geographical area to ensure reliability and validity of the results.

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