A Study on Factors Affecting Mobile Phone Buying Behaviour in Bhubaneswar and Cuttack

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Abstract

Over the past few years, people's obsession with regard to mobile phones has been on the rise. This research threw light on the factors affecting consumer behaviour of mobile phone buyers in Bhubaneswar and Cuttack, popularly known as the twin cities of Odisha. The study depicted in detail the reasons behind people's desire to purchase a mobile phone, the factors influencing people while making the purchase, and the factors that motivated them to make the final purchase decision. From an extensive study of the existing literature available, it was found that the factors that instigate buying behaviour have really shown a great deal of dynamism since the last decade. The fast - changing technology of mobile telephony has truly become the driver of this unsteadiness. Most of the existing studies have focused on factors like price, features, brand, service, brand loyalty, and operating system with respect to mobile phones. Yet, it is believed that the impact of such factors keeps changing from time to time. Hence, it was deemed justifiable to conduct an updated study on these factors and also consider any other mediating factors in order to help the industry as well as academicians to understand consumers better and design products accordingly. The data for the research were collected using a structured questionnaire with a sample size of 610 respondents belonging to the twin cities of Odisha. Data were analyzed using descriptive statistics as well as regression analysis. From the findings of the study, it was inferred that in each price category, the companies dealing with mobile phones should focus on features and technology.

Keywords : **consumer behaviour, mobile phones, factors affecting buying decisions**

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Imagining just a single day without a phone feels like a fish out of water. It makes people feel restless, even if they do not have it for some hours. They are obsessed about it. People keep checking their phones, even if there are no notifications. It gives them a short relief while doing so. Mobile phones have, in fact, become a lifestyle product. They are being used for a variety of purposes.

According to an India Brand Equity Foundation (2018) report, India accounted for the second largest telecom network in the world with a subscriber base of 1,194. 58 million as of February 2018. India has become the world's second largest mobile phone market, with the third highest number of Internet users in the world. It continues to

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hold its position of being the biggest feature phone market globally according to the International Data Corporation. Since the usage of the Internet is increasing rapidly, so is the purchase of smartphones.

The increasing trend in mobile phone usage among people is the main reason that has amplified the interest to research on the topic. People's obsession about mobile phones has been increasing rapidly. The aim of this research is, therefore, to find out the factors affecting consumer behaviour of mobile phone buyers in the twin cities of Odisha. The research aims to find out why people desire to purchase a mobile phone, what influences people in purchasing a mobile phone, and what motivates them in making a purchase decision.

Different consumers have different characteristics in their lives that also influence their buying behaviour. Social factors such as family, groups, roles, and status and personal factors such as age, occupation, lifestyle, personality, and self-concept are those characteristics that could influence the buyer behaviour in making the final decision.

Nowadays, economical smartphones are also available in the market. But why do people buy expensive mobile phones ? Price, quality, brand, features, marketing, sales, word of mouth, etc. could be several factors that a consumer may think of before buying a mobile phone. How much does the brand name of a mobile phone affect the buying decision of a customer ? And how do they impact the customer buying decision ?

Literature Review

(1) Price and Features : Sethi and Chandel (2015) examined the buying preferences of consumers towards entry - level smartphones. Stratified sampling was used to select a sample size of 200 respondents. Exploratory and descriptive techniques were adopted for the study. Data analysis was done using conjoint analysis. The results of the study revealed that consumers chose a brand as the most significant attribute while purchasing a smartphone. This was followed by price and purpose being the other important attributes.

Das (2012) carried out a study in the coastal areas of Odisha in order to explore the factors that influenced the buying behavior of youth in these areas towards mobile handsets. The study involved empirical research based on survey method. Data collected were analyzed using chi-square test, percentage test, and paired *t* - test model. The results revealed that youth in these areas bought mobile phones on credit.

Kumar and Kanchan (2018) assessed consumer preferences on the basis of various parameters like design, quality, price, availability, style, brand image, etc. of the apparels. The study concluded that 'style' and 'design' were the first and second preferences of the Indian customers rather than the 'brand name.' Thus, the apparels organizations are directed to account for these parameters in production and marketing promotional strategies and plans.

Garg and Atwaru (2017) revealed that most of the demographic variables had a statistically significant relationship with frequency of visit and money spent at the mall, while time spent was positively related to gender and marital status. Gender, age, educational level, and dwelling distance were the differentiating demographic factors towards hedonic mall factors (convenience and variety). On the other hand, income was the only demographic variable that showed a differentiating behaviour for the hedonic factor namely, ambience. The study contributed to examine the interplay between mall factors, demographic factors, and behavioural variables.

(2) Psychological Factors : Gupta and Jain (2019) studied the role of anthropomorphism in influencing the consumers' purchase intentions in the case of smartphones. A hypothetical brand “USEN” was created. Two versions of the ad - anthropomorphic and non - anthropomorphic were developed for the hypothetical brand. Multivariate analysis of variance (MANOVA) technique using SPSS version 23 was used to test the results. The results established a significant positive differential effect of the anthropomorphic ad over the non - anthropomorphized version of the advertisement on consumers' feelings, attitude towards the ad, attitude towards the brand, and purchase intention.

Lau, Lam, and Cheung (2016) examined the factors that influence the purchase intentions of smartphones in Hong Kong. They considered several factors such as perceived ease of use, perceived value, perceived usefulness, external influence, and subjective norms. The study was conducted among 150 undergraduate students at a university in Hong Kong. The data collected were analyzed through exploratory factor analysis, reliability tests, and multiple regression analysis. The results of the study indicated that the factors taken into consideration for the study were found to have a significant influence on the purchase intentions of smartphones.

(3) Brand Loyalty : Nandi and Pattanayak (2015) focused on the brand switching tendencies of young Indians and effectively analyzed the impact of different demographic variables on brand loyalty. A total number of 600 young adults comprising of both students and working professionals from various reputed colleges and companies in Bangalore were surveyed and their responses were analyzed using SPSS 20. The study indicated that Apple had the most loyal base of customers, though Samsung was the most popular brand, and among the various demographic factors, only age had an impact on brand loyalty. Technical incompatibility and new technical and value added features were the primary reasons for switching to a new handset.

According to a study done by Kumar and Menon (2017), Apple topped the list with the highest brand loyalty score followed by Asus, Blackberry, LG, Samsung, Motorola, Micromax, Nokia/Microsoft, Sony, Xiaomi, Lenovo, Huawei, and HTC in the study conducted among IT employees. The statistically significant difference found in the brand loyalty scores of different smartphone brands signalled to the manufacturers to seriously focus on brand loyalty building to cope up with cut throat competition and to ensure their long-term growth and survival. They suggested that manufacturers should concentrate more on areas such as image building, manufacturing quality products, and ensuring customer satisfaction.

(4) Social Factors : Khan and Rohi (2013) conducted a study among the students of City University and Sarhad University in Peshawar, Pakistan in order to gain an understanding of the factors that affected the choice of mobile phone brands among the youth. Brand choice criteria were measured by administering a questionnaire to 110 respondents. Descriptive statistics, regression, and coefficient analysis were used for data analysis. The results of the survey revealed that some of the key factors that affected the mobile phone brand choice among youth in Peshawar were recommendations by family and friends, brand image, and quality. Hence, it was suggested that marketers focus on and prioritize these factors while targeting young consumers. The authors also suggested that future research should focus on examining other variables that might have a significant relation to the choice of mobile phone brands.

Junco (2013) found that cell phones in the present era are considered to play a critical role when it comes to maintaining social relationships. They form a very important part of everyday life.

Research Gap

From an extensive study of the existing literature available, it is found that the factors that instigate the buying behaviour have really shown a great deal of dynamism since the last decade. The fast changing technology of mobile telephony has really become the driver of this unsteadiness. The dynamism of those factors should always be studied extensively from time to time so that it may help the academicians as well as the industry. Most of the studies have been focusing on factors like price, features, brand, service, brand loyalty, and operating system. However, the impact of these factors keeps changing from time to time. So, it is justifiable to do an updated study on these factors and also to find out any other mediating factors so that it will help the industry to understand the consumers better and design products accordingly.

Research Objectives

The current study is based on the factors affecting the buying behaviour of mobile phones in the twin cities of Cuttack and Bhubaneswar. The following are the major objectives of this study :

(1) To examine the impact of brand image on buying behavior.

(2) To study the magnitude of the impact of price on the buying behavior.

(3) To examine whether design of the phone affects the buying behavior.

(4) To study the impact of product and technical features like operating system, battery life, camera, memory, processor speed, screen size, etc.

(5) To study the impact of peer group on buying behavior.

Testable Hypotheses

- **H_{01} :** Design of the phone does not play a major role in taking the buying decision.
- **H_1 :** Design of the phone plays a major role in taking the buying decision.

- **H_{02} :** Product and technical features like operating system, battery life, camera, memory, processor speed, screen size, etc. do not have the maximum impact on buying decisions.
- **H_2 :** Product and technical features like operating system, battery life, camera, memory, processor speed, screen size, etc. have the maximum impact on buying decisions.

- **H_{03} :** Price of the phone does not affect the buying decision.
- **H_3 :** Price of the phone significantly affects the buying decision.

- **H_{04} :** Brand image does not affect the buying behavior of consumers.
- **H_4 :** Brand image affects the buying behavior of consumers.

- **H_{05} :** Peer group does not affect the consumer decision making process.
- **H_5 :** Peer group affects the consumer decision making process.

Research Methodology

To conduct the study, the following methodology has been followed. The study was conducted in the twin cities of Cuttack and Bhubaneswar, and the study is confined to examining the adult buying behaviour with special reference to mobile phones. The data were collected by using a structured questionnaire from 610 respondents (sample size) in the year 2018. The descriptive study of the data has been carried out to find out the importance of each and every factor in the mobile phone buying process. Furthermore, the data are analyzed with the help of regression analysis to prove the hypotheses.

Data Analysis and Results

From the Table 1, it is seen that 66% of the respondents were male and 33% of the respondents were female. More than 51% of the respondents were within the age group of 18-25 years and respondents from other age groups comprised of about 11% - 13% of the entire sample. More than 43% of the respondents belonged to the income group of earning less than ₹ 20,000 per month. Around 24% of them had income ranging from ₹ 20,000 to ₹ 40,000, and the rest of the groups, that is, earning ₹ 40,000 - ₹ 60,000 and earning more than ₹ 60,000 constituted 19% and 15%, respectively.

Table 1. Demographic Profile of the Respondents

		Count	%
Gender	Male	403	66%
	Female	207	34%
Age Group	18-25 yrs	314	51%
	25-34 yrs	66	11%
	34-42 yrs	81	13%
	42-50 yrs	81	13%
	More than 50 yrs	68	12%
Monthly Income	Less 20K	264	43%
	20K-40K	144	24%
	40K-60K	113	19%
	Above 60K	89	14%
Own a mobile phone?	Yes	610	100%
	No	0	0%
When did you purchase it?	0-1 month	38	6%
	1-3 months	92	15%
	3-6 months	114	20%
	6 months to 1 yr	240	39%
	1-3 yrs	93	15%
	More than 3 yrs	33	5%

Table 2. Descriptive Statistics of Different Features of Mobile Phones in Different Age Groups

		N	Mean	Std. Deviation	Std. Error
Brand Image	18-25 years	314	3.5271	.70034	.03952
	26-34 years	66	3.5095	.77810	.09578
	35-42 years	81	**3.3966**	.76388	.08488
	43-50 years	81	3.4985	.89954	.09995
	More than 50 years	68	**3.5938**	.79480	.09638
	Total	610	3.5115	.75618	.03062
Price	18-25 years	314	3.4618	.56716	.03201
	26-34 years	66	3.5471	.58901	.07250
	35-42 years	81	3.4184	.56363	.06263
	43-50 years	81	3.5871	.65505	.07278
	More than 50 years	68	3.5752	.63174	.07661
	Total	610	3.4945	.58979	.02388

Design	26-34 years	66	**4.1606**	.59249	.07293
	35-42 years	81	4.0753	.71336	.07926
	43-50 years	81	4.1370	.65468	.07274
	More than 50 years	68	4.0853	.64929	.07874
	Total	610	3.9825	.76573	.03100
Product Features	18-25 years	314	4.0089	.74997	.04232
	26-34 years	66	4.1121	.61726	.07598
	35-42 years	81	4.0198	.68730	.07637
	43-50 years	81	4.0881	.68782	.07642
	More than 50 years	68	4.1892	.58524	.07097
	Total	610	**4.0521**	.70384	.02850
Peer Group	18-25 years	314	3.1322	.82210	.04639
	26-34 years	66	2.8990	.88765	.10926
	35-42 years	81	3.1276	.88674	.09853
	43-50 years	81	3.1132	1.14377	.12709
	More than 50 years	68	3.0588	.92853	.11260
	Total	610	**3.0956**	.89814	.03636
Technology	18-25 years	314	4.0759	.77175	.04355
	26-34 years	66	4.2247	.58563	.07209
	35-42 years	81	4.1914	.71113	.07901
	43-50 years	81	4.1797	.79511	.08835
	More than 50 years	68	4.2435	.61894	.07506
	Total	610	**4.1398**	.73416	.02973

Around 39% of the respondents had purchased mobile phones within a period of 6 months to 1 year. Around 20% of the respondents had mobile phones which were more than a year old. Only 5.41% of the respondents had mobile phones which were more than 3 years old. All the respondents owned a mobile phone.

As per the data given in Table 2, technology was ranked the highest (i.e. 4.13 on a 5 point scale) by the total respondents and peer group influence was ranked the lowest (i.e. 3.09) by the respondents. The other factors such as brand image, price, design, and product features were ranked as 3.5, 3.49, 3.98, and 4.05, respectively. It was observed that the respondents, irrespective of their age, considered technology and features as the most important factors while buying a mobile phone. Hence, it is the product that attracts the customers in this case.

Regression Analysis

From the Table 3, it is observed that the *R* - square of all the cases is more than 0.60. This indicates that in all the cases, more than 60% of the variation in the dependent variable is explained by the independent variables. In this step - wise regression, each independent variable is considered step by step to find out the variable up to which the model is identified. In this case, it is observed that in case of only product features, it is 0.60, and when peer group is included in the model, it becomes 0.84. This means that the model has become stronger with the addition of this variable. Again, the next variable, that is, brand image is included, which makes it stronger with *R* - square value of 0.91, and with the inclusion of the next variable, that is, the design of the phone, it further increases to 0.95. Again, the *R* - square value shows an increment to 0.97 with the inclusion of the next variable (technology). However, when the last variable, that is, price of the product is included in the model, it does not get identified. This means that around 97% of the variation in the dependent variable (i.e. buying decision) is explained by the independent variable other than price. When price is included in the model, it is not identified. The intercept becomes close to

Table 3. *R* Square of the Regression Model

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.780[a]	.609	.608	.32753
2	.917[b]	.840	.840	.20929
3	.954[c]	.910	.909	.15738
4	.976[d]	.953	.952	.11409
5	.989[e]	.978	.978	.07845
6	1.000[f]	1.000	1.000	.00000

Note.

a.Predictors: (Constant), Product_Features

b.Predictors: (Constant), Product_Features, Peer_Group

c.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image

d.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image, Design

e.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image, Design, Technology

f.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image, Design, Technology, Price

Table 4. ANOVA of the Independent Variables

	Model	Sum of Squares	*df*	Mean Square	*F*	Sig.
1	Regression	101.435	1	101.435	945.531	.000[b]
	Residual	65.225	608	.107		
	Total	166.660	609			
2	Regression	140.073	2	70.036	1598.951	.000[c]
	Residual	26.587	607	.044		
	Total	166.660	609			
3	Regression	151.651	3	50.550	2041.033	.000[d]
	Residual	15.009	606	.025		
	Total	166.660	609			
4	Regression	158.785	4	39.696	3049.536	.000[e]
	Residual	7.875	605	.013		
	Total	166.660	609			
5	Regression	162.943	5	32.589	5295.484	.000[f]
	Residual	3.717	604	.006		
	Total	166.660	609			
6	Regression	166.660	6	27.777	.	.[g]
	Residual	.000	603	.000		
	Total	166.660	609			

Note.

a. Dependent Variable: Buy_Decision

b.Predictors: (Constant), Product_Features

c.Predictors: (Constant), Product_Features, Peer_Group

d.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image

e.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image, Design

f.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image, Design, Technology

g.Predictors: (Constant), Product_Features, Peer_Group, Brand_Image, Design, Technology, Price

zero, and the significance level of the coefficient is also undefined. It may be due to the fact that the behaviour of price, as compared to other variables, is significantly different. It can also be seen from the Table 4 that the price of the phone behaves differently as compared to other factors influencing the buying behaviour of customers.

As seen in Table 4, ANOVA is used to compare the behaviour of all the variables. It compares each variable with others for all the step wise regression models. In the first step, it is significant. That means the model is properly identified. In case of subsequent steps, up to the fifth step, where new variables like product features, peer group, brand image, design, and technology have been added, the ANOVA is highly significant, but when price is included in the comparison, it is undefined.

The Table 5 shows the step wise regression analysis of the different factors of mobile phone buying behaviour. The dependent variable is the buying decision and all the other factors of buying behaviour have been taken as the independent variables. Here, the regression has been run in six steps. In the first step, where only product feature is used as the predictor variable, it is observed that its beta is 0.58 and the intercept is 1.36. In the second step, where

Table 5. Coefficients of the Independent Variables of the Regression Model

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	**Std. Error**	**Beta**		
1	(Constant)	1.363	.078		17.576	.000
	Product Features	.580	.019	.780	30.749	.000
2	(Constant)	.879	.052		16.848	.000
	Product Features	.476	.013	.641	37.970	.000
	Peer Group	.292	.010	.501	29.700	.000
3	(Constant)	.590	.041		14.231	.000
	Product Features	.423	.010	.569	43.319	.000
	Peer Group	.201	.009	.345	23.610	.000
	Brand Image	.225	.010	.325	21.622	.000
4	(Constant)	.382	.031		12.190	.000
	Product Features	.322	.008	.433	38.962	.000
	Peer Group	.216	.006	.371	34.811	.000
	Brand Image	.187	.008	.270	24.207	.000
	Design	.176	.008	.258	23.410	.000
5	(Constant)	.244	.022		10.988	.000
	Product Features	.189	.008	.254	24.650	.000
	Peer Group	.212	.004	.363	49.583	.000
	Brand Image	.183	.005	.264	34.453	.000
	Design	.172	.005	.251	33.151	.000
	Technology	.175	.007	.245	25.994	.000
6	(Constant)	3.886E-15	.000		.000	1.000
	Product Features	.167	.000	.224	111988852.714	.000
	Peer Group	.167	.000	.286	186065234.568	.000
	Brand Image	.167	.000	.241	161726787.954	.000
	Design	.167	.000	.244	166608389.787	.000
	Technology	.167	.000	.234	128251407.983	.000
	Price	.167	.000	.188	127353919.745	.000

Note.

[a.] Dependent Variable: Buy_Decision

peer group is added as the next independent variable, the intercepts and respective betas are 0.879, 0.476, and 0.292, respectively. Here, the intercept is reduced further to less than one. In the third step, where brand image is included, the intercept is further reduced to 0.59, and the respective slopes are 0.423, 0.201, and 0.225. In the fourth step, design is included and the intercept is changed to 0.382 with slopes of 0.322, 0.216, 0.187, and 0.176. Here, it is observed that the impact of product feature is higher than the impact of other independent variables. As the standardized beta of product features is higher than that of the other variables (i.e. 0.433), it has the highest impact. In the fifth step where we add technology, the intercept further reduces to 0.244, and the respective slopes are 0.189, 0.212, 0.183, 0.172, and 0.175. However, in this case, the impact of peer group is higher than the impact of other variables with a standardized beta of 0.363. This shows that the influence of friends and peers is higher in this case. In the sixth step, where price is included but the equation is not identified, this may be due to the fact that the collective impact of all the variables along with price is not defined properly. So, in the subsequent pages, a different regression line defining the impact of price on the buying decision is run to show the importance of price in the buying process.

From this regression analysis, it is found that the impact of peer group is highest while making a buying decision, followed by the impact of brand image, design, and technology of the product, respectively. Hence, all the alternate hypotheses are proved. Apart from this, in all the cases, the significance level is high (i.e. it is 0.000). This proves all the following hypotheses of the study. However, the price of the product is regressed separately due to the reason mentioned in the previous paragraph. The following alternate hypotheses are accepted in this regression analysis.

- **H_1:** Design of the phone plays a major role in taking the buying decision.
- **H_2:** Product and technical features like operating system, battery life, camera, memory, processor speed, screen size, etc. have the maximum impact on buying decisions.
- **H_4:** Brand image affects the buying behavior of consumers.
- **H_5:** Peer group affects the consumer decision making process.

Table 6. Excluded Variables in the Step Wise Regression Model

	Model	Beta In	*t*	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Brand Image	.500[b]	27.695	.000	.747	.873	1.146	.873
	Price	.444[b]	21.388	.000	.656	.852	1.174	.852
	Design	.316[b]	11.236	.000	.415	.673	1.486	.673
	Peer Group	.501[b]	29.700	.000	.770	.923	1.084	.923
	Technology	.315[b]	8.477	.000	.325	.417	2.398	.417
2	Brand Image	.325[c]	21.622	.000	.660	.659	1.518	.659
	Price	.248[c]	14.168	.000	.499	.646	1.548	.646
	Design	.314[c]	20.815	.000	.646	.673	1.486	.638
	Technology	.270[c]	11.941	.000	.436	.415	2.407	.409
3	Price	.208[d]	16.241	.000	.551	.634	1.577	.589
	Design	.258[d]	23.410	.000	.689	.643	1.555	.629
	Technology	.256[d]	16.169	.000	.549	.415	2.410	.400
4	Price	.197[e]	25.649	.000	.722	.633	1.579	.582

	Technology	.245[e]	25.994	.000	.727	.414	2.413	.348
5	Price	.188[f]	130451408.887	.000	1.000	.632	1.583	.343

Note.

a. Dependent Variable : Buy_Decision

b. Predictors in the Model: (Constant), Product_Features

c. Predictors in the Model: (Constant), Product_Features, Peer_Group

d. Predictors in the Model: (Constant), Product_Features, Peer_Group, Brand_Image

e. Predictors in the Model: (Constant), Product_Features, Peer_Group, Brand_Image, Design

f. Predictors in the Model: (Constant), Product_Features, Peer_Group, Brand_Image, Design, Technology

Table 7. *R* Square of the Regression Model

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.679[a]	.461	.460	.38433

Note.

a. Predictors : (Constant), Price

The Table 6 shows the excluded variables in different steps of the regression line. The last but one column of the table shows the collinearity statistics. The second column shows the VIF (variance inflation factor). This shows the validity of the regression model. If the VIF score of any variable is more than 5, then it is rejected from the regression model as it has high collinearity. The absence of collinearity in almost all the variables that validate the regression model can be observed.

The Table 7 shows the impact of price on the buying behaviour of mobile phones with the help of a regression model. The first table shows the value of *R* - square, which is 0.46. That means around 46% of the variation in the buying decision is influenced by the price of the product. So, price constitutes an important factor in making the buying decision. This variable is separately regressed because in case of the multiple regression models, when we include price as an independent variable, the multiple regression model is not identified ; so, price has been used as a separate regressor for buying decision.

The Table 8 shows the ANOVA of the dependent and independent variables. As it is observed that the ANOVA is significant, it justifies the regression model. The Table 9 shows the regression details.

The Table 9 shows the regression coefficient of price as the independent variable and buying decision as the independent variable. Here, the intercept is 1.608 and the coefficient is 0.602. The significance level of the independent variable is also high.

The above regression analysis shows that peer group and brand image are the most important factors that affect the buying decision of the consumer. However, when the same regression model is run with price as another independent variable, it is flat. That is why the regression model for buying behavior taking price as an

Table 8. ANOVA of the Regression Model

	Model	Sum of Squares	*df*	Mean Square	*F*	Sig.
1	Regression	76.851	1	76.851	520.276	.000[b]
	Residual	89.809	608	.148		
	Total	166.660	609			

Note.

a. Dependent Variable : Buy_Decision

b. Predictors : (Constant), Price

Table 9. Coefficients of the Independent Variable (i.e. Price) of the Regression Model

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	*t*	Sig.
1	(Constant)	1.608	.094		17.182	.000
	Price	.602	.026	.679	22.810	.000

Note.

a. Dependent Variable : Buy_Decision

independent variable is tested separately. It is observed that the price of the mobile phone has a major impact on the buying behaviour of the consumers. Hence, the hypothesis H_3 is accepted.

Box Plots

The following figures show the box plots of all the variables where different age groups are taken as the basis for the preparation of these plots.

The Figure 1 shows the box plot of buying decision. It is observed that most of the outliers belong to the age group of 18 - 25 years or 42 - 50 years. This means that these two groups responded differently than other groups. The youth groups are towards the lower side, that is, towards 1 and the age groups of 42 - 50 years are inclined towards 5.

The Figure 2 shows the box plot of brand image. It is observed that most of the outliers belong to the age group of 18 - 25 years or 23 - 34 years. This means that these two groups responded differently than the other groups

Figure 1. Box Plot Showing the Response Regarding Buying Decision on Age Group

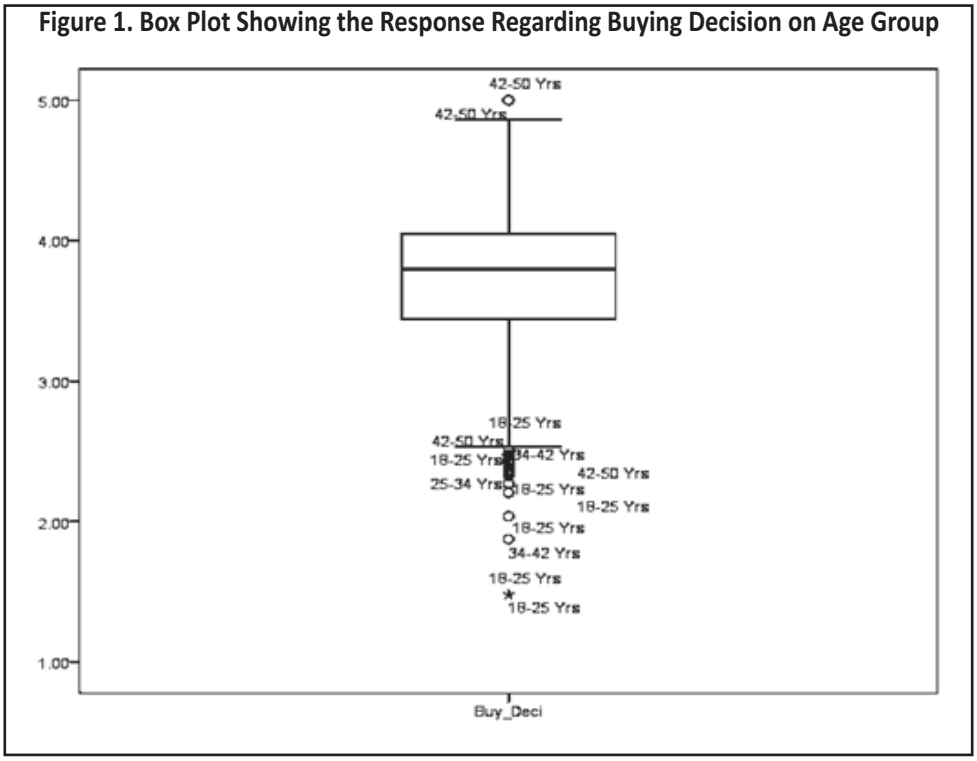
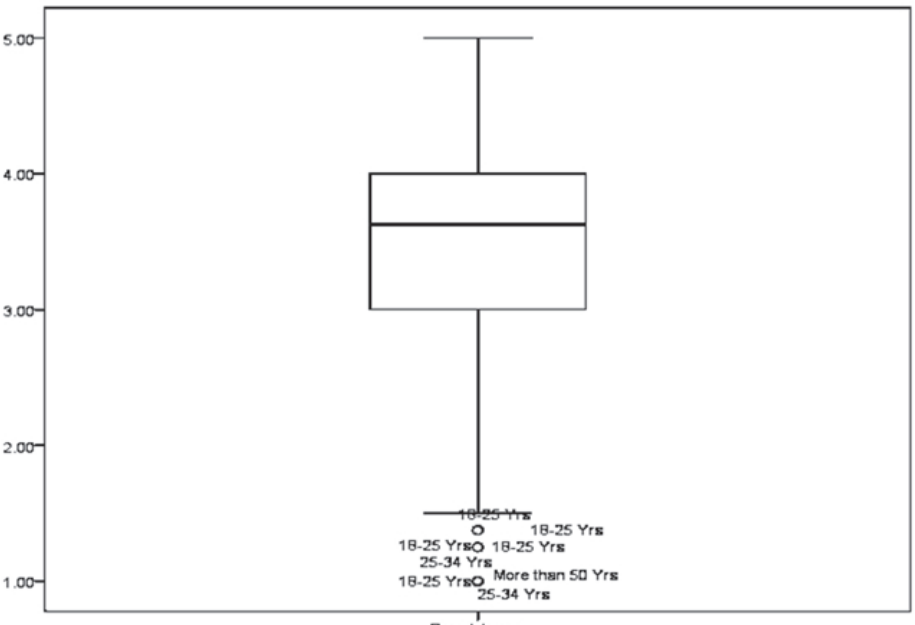
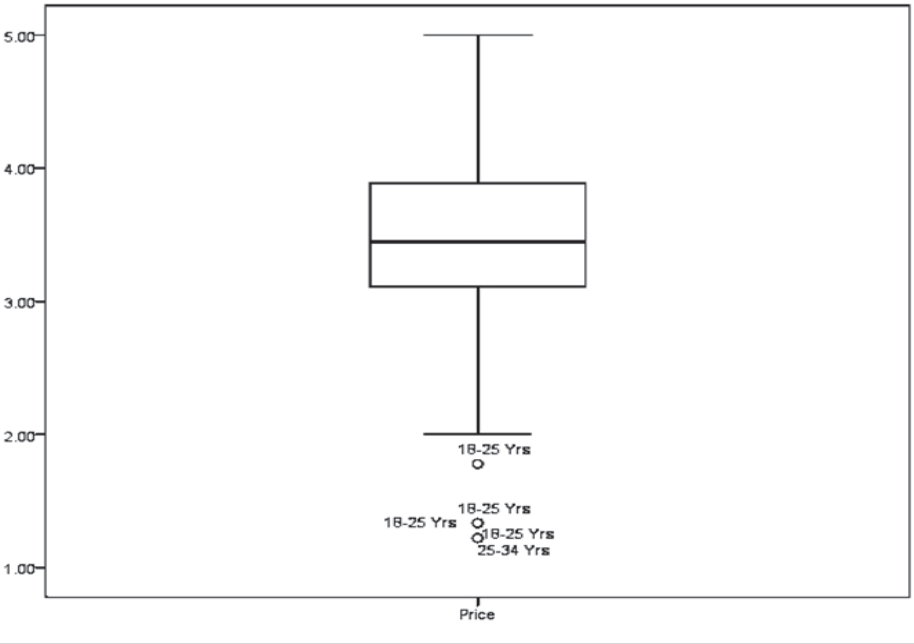


Figure 2. Box Plot Showing the Response Regarding Brand Image on Age Group



regarding brand image. The outliers are mostly towards lower values, that is, 1. This implies that majority of the respondents are inclined towards the higher side of the scale, that is, 4 or 5. Here, looking at the plot, it can be interpreted that brand image of the mobile phone has a higher impact on the buying decision of customers. Few of the outliers are of the opinion that brand image is not an important factor in buying decision.

Figure 3. Box Plot Showing the Response Regarding Price on Age Group



The Figure 3 shows the box plot of price. It is observed that most of the outliers belong to the age group of 18 - 25 years or 23 - 34 years. Hence, it indicates that these two groups responded differently than the other groups regarding price. The outliers are mostly towards lower values, that is, 1. So, this means that majority of the respondents are inclined towards the higher side of the scale, that is, 4 or 5. Here, looking at the plot, it can be interpreted that the price of the mobile phone has a higher impact on the buying decision. Few of the outliers are of the opinion that price is not an important factor while making a buying decision.

The Figure 4 shows the box plot of design. It is observed that most of the outliers belong to the age groups of 18 - 25 years or 34 - 42 years. This means that these two groups responded differently than the other groups regarding design. The outliers are mostly towards lower values, that is, 1. So, this means that majority of the respondents are inclined towards the higher side of the scale, that is, 4 or 5. Here, looking at the plot, it can be interpreted that the design of the mobile phone has a higher impact on the buying decision. Few of the outliers are of the opinion that design is not an important factor while making a buying decision.

The Figure 5 shows the box plot of product features. It is observed that most of the outliers are from the age groups of 18 - 25 years or 34 - 42 years. This means that these two groups responded differently than the other groups regarding product features. The outliers are mostly towards lower values, that is, 1. So, this means that majority of the respondents are inclined towards the higher side of the scale, that is, 4 or 5. Here, looking at the plot, it can be interpreted that the product features of mobile phones have a higher impact on the buying decision. Few of the outliers are of the opinion that product features are not an important factor for making a buying decision.

The Figure 6 shows the box plot of peer group influence. It is observed that there are no outliers in this plot. So, it indicates that respondents of all the groups had similar opinions regarding peer group influence. However, 50% of the respondents gave a score of 2.5 to 3.5 out of 5. This means that the impact of peer pressure influence is not very high while taking the buying decision of mobile phones. This may be due to the fact that everybody collects information from friends and relatives regarding mobile phones, but takes a decision based on other factors also.

Figure 4. Box Plot Showing the Response Regarding Design on Age Group

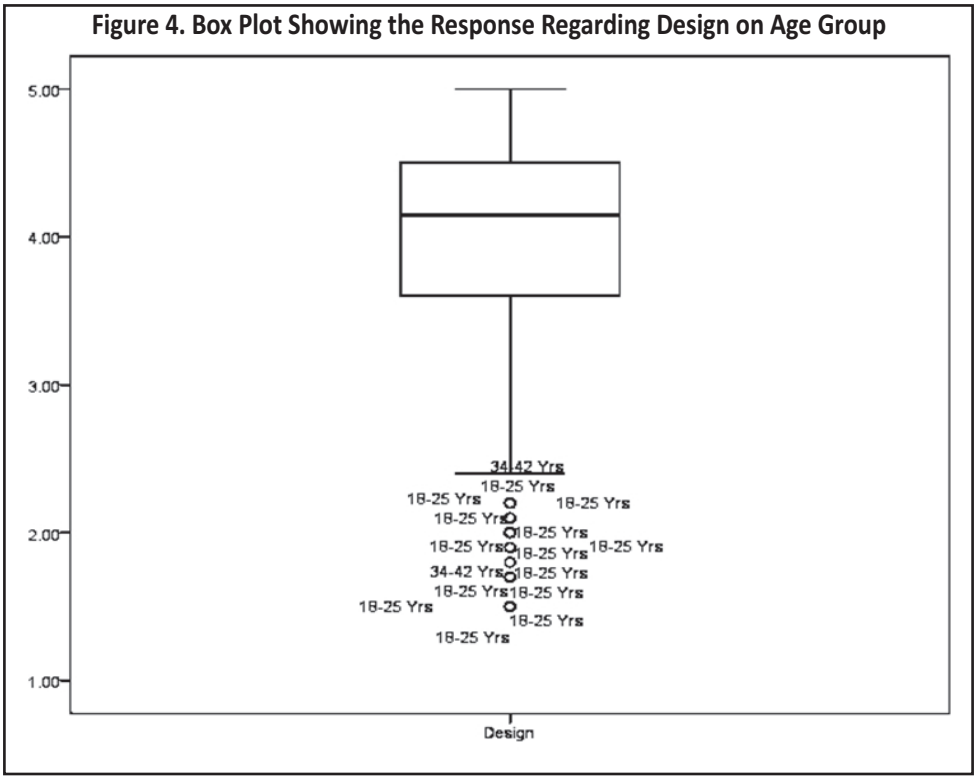


Figure 5. Box Plot Showing the Response Regarding Product Features on Age Group

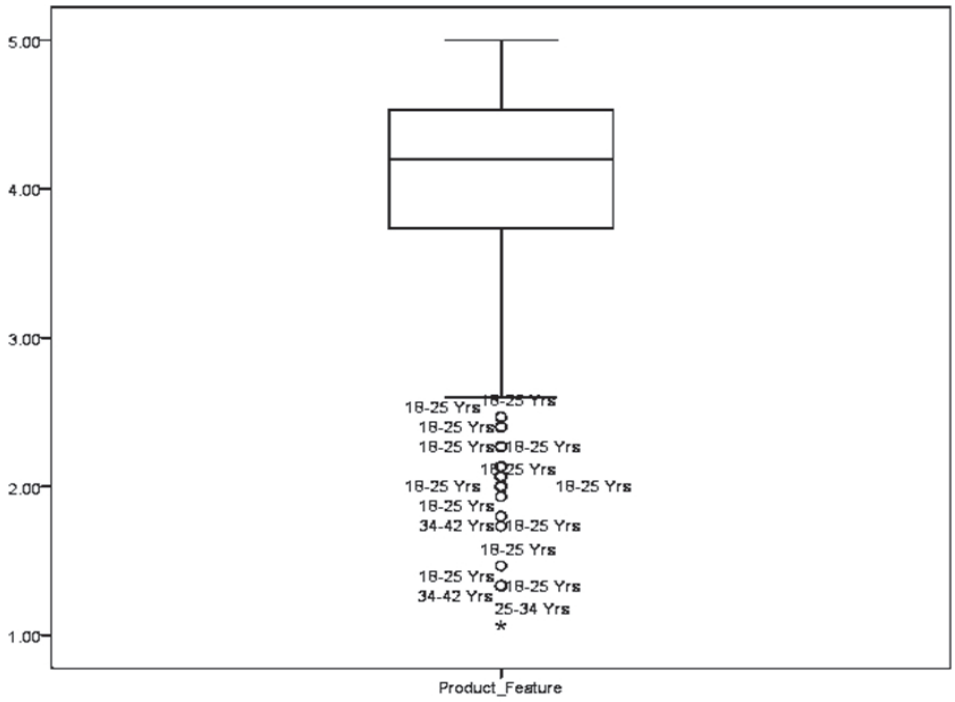


Figure 6. Box Plot Showing the Response Regarding Peer Group on Age Group

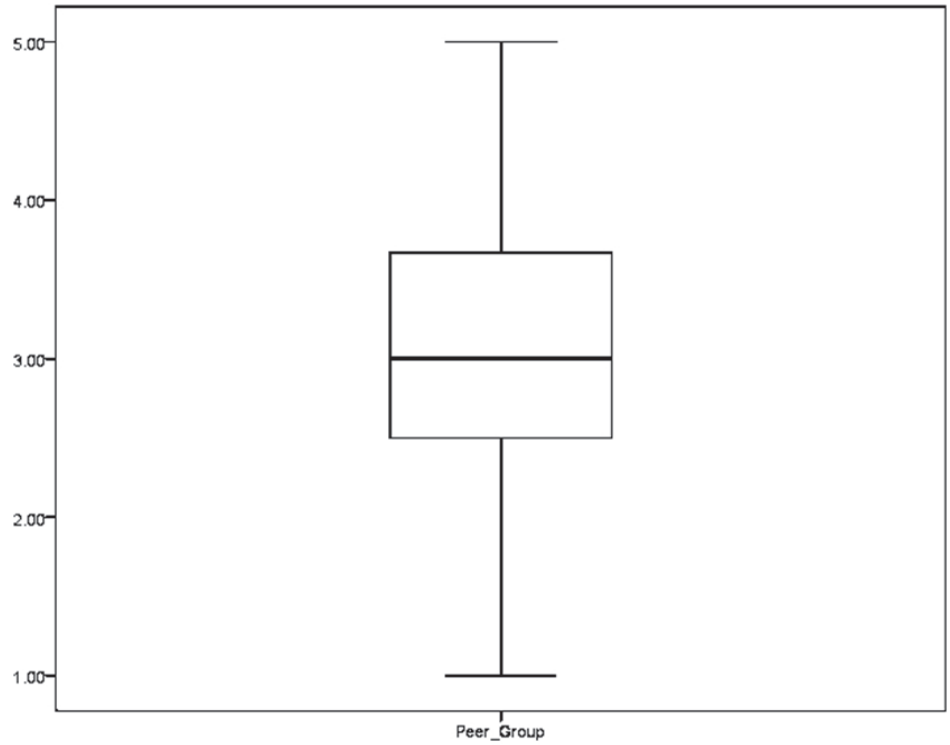
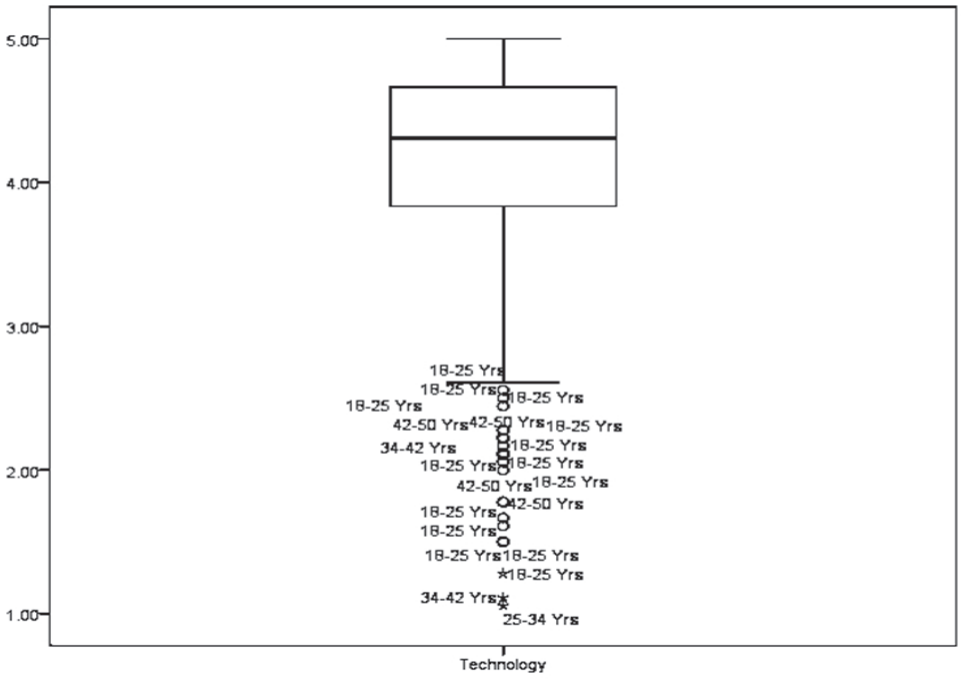


Figure 7. Box Plot Showing the Response Regarding Technology on Age Group



The Figure 7 shows the box plot of technology used in mobile phones. It is observed that most of the outliers belong to the age group of 18 - 25 years or 34 - 42 years. This means that these two groups responded differently than the other groups regarding technology. The outliers are mostly towards the lower values, that is, 1 to 2.7. It indicates that majority of the respondents are inclined towards the higher side of the scale, that is, 4 or 5. Here, looking at the plot, it can be interpreted that the technology used in mobile phones has a higher impact on the buying decision. Few of the outliers are of the opinion that product features are not an important factor in making a buying decision.

Looking at the above analysis, the following points can be summarized :

(1) Design, product features, and technology were rated very highly by the respondents ; whereas, other factors were rated just above average.

(2) Peer group influence was rated low by the respondents.

(3) The regression analysis shows that the impact of product features is higher than the impact of other factors, which is followed by peer group, brand image, and design of the phone.

(4) The price factor is separately regressed and its impact is separately analyzed as it is significantly different from all other factors. This is due to the fact that other factors are non - economic, but this is the only factor which is related to the economic ability of the respondents.

From the above analysis, it is observed that price is one of the factors which is independent of other factors and after deciding the price, the customer searches for the other factors while taking a decision. In this light, the following section shows the major findings and conclusion of the analysis.

Findings

Mobile phones have become one of the necessities of any individual. Irrespective of age, cast, religion, gender, qualifications, and other demographic factors and economic stratas, the mobile phone is one thing that is there in the hands of every person. Starting from a small kid to a very old person, it has some role in everybody's life. However, the objective of the study is to examine the adult buying behaviour with respect to mobile phones. To complete the study, a structured questionnaire was circulated among 610 respondents of different age groups and analysis is done using different statistical tools. From the analysis, the following points have been found. Around 50% of the sample respondents consisted of respondents belonging to the 18 - 25 years age group. This is so because the frequency of purchase of mobile phones in this age group is higher as compared to the other age groups.

(1) The brand image of phones was ranked as 3.59 by the respondents in the age group of more than 50 years ; whereas, the overall ranking is 3.5 out of 5. This shows that the brand image of a phone carries some weight for the buyers. From the regression analysis, it is observed that brand image (i.e. 0.26) follows peer group (i.e. 0.36).

(2) Price of the phones was ranked between 3.4 to 3.5 by all age groups. This shows that the importance of price for the customers was similar across all age groups. The impact of price in the buying decision is analyzed by making a regression analysis and its co-efficient is 0.602 with a positive intercept.

(3) The design of the phones was ranked as 4.1 by two age groups (i.e. respondents in the 24 - 34 years age group and respondents in the 42 - 50 years age group) and the overall ranking is 3.9. It is observed that design is given more importance while buying mobile phones. The impact of design (i.e. 0.251) on buying behaviour follows peer group (i.e. 0.36), brand image (i.e. 0.26), and product features (0.254).

(4) Product and technical features were ranked between 4 and 4.1. This shows that product features were ranked similarly by all age groups. Product features was ranked third (i.e. 0.254) while studying its impact on buying decision. First and second factors being peer group and brand image.

(5) The importance of peer group ranges between 2.8 to 3.13. It shows that it is not a very important factor for the buyer. However, the regression analysis shows the impact of peer group as the highest (i.e. 0.363) on buying decision.

(6) Product and technical features were ranked between 4 and 4.2 by the respondents. It reflects that buyers gave higher importance to this factor. However, the regression analysis shows that the impact of product and technical features on buying behaviour is not very high (i.e. 0.245). This maybe because almost all the mobile phones carry similar technical features in a specific price category.

From the findings of the study, it can be inferred that in each price category, the companies dealing with mobile phones should focus on features and technology. This would help the mobile companies to capture more and more market share.

Conclusion

Telecommunications is one of the integral parts of society. This may be due to the continuous improvement in the

mobile phone technology in the recent years. This has also attracted more and more producers and marketers. Smartphones have become one of the most important aspects of everybody's life. Starting from sunrise to sunset and from sunset to again sunrise, everybody is online. This is possible because of the invention of smartphones. The migration of mobile networks from 2G to 4G and 5G has increased the need for high tech phones. This has resulted in increasing number of mobile phone producers. Consequently, the competition in the mobile phone market is based on every aspect of the product. Looking at the same, the current study has been conducted to find out the various factors that are responsible for the buying decision making among the various age groups of customers. From the literature, it is observed that the customers focus on various factors before selecting a phone for purchase. In this context, a detailed study is made to find out what are the most important factors that are really responsible for buying decision making of mobile phones.

In this context, the behaviour of the customers is studied with the use of a structured questionnaire, and it is observed that out of all the factors, the features like large screen, camera, processor, waterproof, RAM, etc. play an important role while taking a decision to buy a particular mobile phone. However, though price is one of the important factors, it does not play the most important role in making the buying decision. The price is independent of all other factors because when a customer thinks of buying a mobile phone, he/she first decides his/her budget and then compares all the other factors of different models. So, here, price is a key factor that is used to select different brands of mobile phones and then the customer starts comparing different products using all the other factors. So, price of a phone is independent of all the other factors of buying behaviour of the customer. Hence, it can be concluded that the mobile phone producers need to focus on different features of the mobile phones to attract more and more customers.

Implications

The results of this research contribute towards society by adding more value to the already existing but sparse literature available with respect to adult buying behavior of mobile phones. Various stakeholders are expected to benefit from the insights gained through this research work.

The results of this study will be of immense use to mobile phone companies in order to enable them to understand the needs of consumers better and design mobile phones accordingly. People always tend to get attracted towards new technology and easily shift to using newer mobile phones if they have superior technology. The results of this research will help mobile phone manufacturers to gain deeper insights about the various factors that consumers consider while purchasing a mobile phone such as price, design, product features, and brand image. They can thus use the information to enhance their products and develop consumer-friendly mobile phones with better quality.

This research work will also be of great help to researchers as it adds to the existing pool of knowledge, while at the same time, it provides enormous scope for further research in the area. This research also acts as a strategic input for marketers and can help organizations to plan and create more effective promotional campaigns based on the inputs gained about adult consumer buying behavior with respect to mobile phones. This research work can also help to trigger effective brain storming sessions regarding the various factors considered by consumers while purchasing a mobile phone and also for creating effective business strategies. With respect to consumer buying behavior, this research work provides various pointers, which can be adopted by the mobile phone industry depending on the context of their business.

Limitations of the Study and Scope for Further Research

Mobile phone as a technology has been rapidly evolving and will continue to do so in the future. It all began with

the introduction of the pager and from there, the technology expanded. We had keypad phones at the beginning, and then slowly, slider phones came into existence. A few years later, touch screen phones were introduced. In today's date, we have smartphones. It is being projected that in the future, we will have more advanced technology in the form of foldable and transparent mobile phones. This shows the enormous scope for detailed research with respect to mobile phones.

The present research work has focused on adult buying behavior with respect to mobile phones in the twin cities of Bhubaneswar and Cuttack in Odisha, India. Hence, there is scope for expanding or replicating this research work in other parts of India in order to gain more clarity and depth. The scope of the present research can also be expanded to consumers of other foreign countries. There is also scope for carrying out the same research with reference to understanding the buying behavior of rural versus urban consumers in India. Future studies in this area may also use a larger sample size. Furthermore, other factors such as behavioral factors (perception, learning, motivation, etc.) may also be explored to gain deeper insights. There is also scope for carrying out the study using other methods such as interviews as this study has made use of only the questionnaire method.

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