

## CONSUMER BUYING PREFERENCE TOWARDS ENTRY LEVEL SMARTPHONE

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**Abstract:** India will be having more than 200 million smartphone users and will be becoming the second largest market of smartphones by 2016. The use of smartphones and their applications has increased manifold in recent years, however research studies that explore how consumer segments shape their attitude and value smartphone functionality, still remains underexplored. Marketers have to peep into the mind of the consumers to develop the smartphones containing the most preferred attributes as per the consumers. The study tries to explore the consumer buying preference for entry level smartphone amongst youth. To accomplish the stated objective, an exploratory and descriptive study consisting of 200 respondents selected by using stratified sampling was conducted in Jan-Feb, 2015. An in-depth review of literature focusing on identifying various factors playing a major role while selecting a smartphone brand was conducted. The factors so identified were then used to prepare structured questionnaire. Conjoint analysis was used to find out the relative importance of attributes selected for the study as per consumer's preferences. It was found that Brand (25%) was the most important attribute used as a selection variable while purchasing a smartphone, followed by Price (21%) and Purpose (20%) respectively. This study can equip the incumbents and new entrants in a highly competitive Smartphone Industry to develop smartphone keeping the consumer preferences in mind for superior market performance.

**Keywords:** Consumer Preference, Smartphone, Smartphone Attributes, Conjoint Analysis

**JEL Classification:** M3

### INTRODUCTION

Consumer preferences can be defined as the subjective characteristics which a consumer wants in in any good or service that can be measured by utility of goods or service. Consumer preference permit the buyer to rank the bundles of goods as per the levels of satisfaction which provide it to the consumers. Consumers find difficulty in selecting the important characteristics was one of most important cause of postponing a number of purchase decisions (Greenleaf and Lehman 1995). Preference formation involves comparing brands on specific attributes or in terms of overall evaluations. Preference formation involves the unique attributes of focal subjects are weighted heavily while the unique attributes of less focal subjects are

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neglected (Mantel and Kardes 1999). Consumers' preferences are influenced by whether they are going to make direct comparisons between the different brands or going to evaluate brands individually (Nowlis and Simonson 1997). The consumer has a set of preferences which depends upon culture, education, and individual tastes (Maran and Rani 2013). The amount of these values for a particular good is in terms of the opportunity cost to the consumer who is going to purchase and consume the good or service. The consumer goal is to select the goods or services which provides the greatest level of satisfaction and each customer defines the same in his own way and consumers are very limited in their choices.

### **Smartphone Industry in India**

A mobile phone which can perform multiple functions which can be performed by computer, which is running on operating system which is capable of running apps, having facilities like internet access and touchscreen interface is called as Smartphone. Smartphone has become very popular these days due to less prices and cheaper internet plans. India has the one of the highest smartphone market growth rate which is more than China, and the average Indian uses around two hours and 45 minutes each day on the smartphone, while one in the average US uses two hours and 27 minutes. As per IDC, customers are migrating from feature phones to smartphones and it is making 35 percent share of the total mobile phone market in Q4 2014, making significant growth of 13 percent from Q4 2013. India will be becoming the second largest market of smartphones by 2016 and Indian smartphone market grew 82% from last year. Smartphones with screen sizes between 4.5 and 5.0 inches are seen as the sweet spot for consumer preference. While Samsung and Micromax remained the largest and second-largest vendors in the overall mobile market respectively, Nokia, Lava International Ltd and Karbonn Mobiles India Pvt. Ltd filled the other three spots in the top five handset vendor list. The growth in smartphones is going to beat the overall growth in the mobile handset industry. The segment is expected to grow with CAGR (Compounded Annual growth rate) of 60%, while the mobile handsets is expected to grow at a CAGR of 13% during 2011-2015.

### **Socioeconomic Statistics of India**

India is world's 2<sup>nd</sup> most populous country with having more than 1 billion people and is set to overtake China as world's most populated country by 2025. In India, 50 per cent of its population is under age of 25 and around 65 per cent population is under the age of 35 which is making it as one of the youngest country in the world and it is already a world's largest youth population. The average age of Indian (29) in 2020 will be much lesser than that of China (37) and Japan (48). As per survey by TCS, 70% of high school students in metros are owning their smartphone and some of them using it for the purpose of internet.

The smartphone users in urban India has grown rate of 89% in 2012-13 as per report of Nielsen India. The study reveals that in young age group of 16 to 18 years, the sales of smartphone has grown four fold. Metro cities are having maximum penetration of smartphone (23%). Maximum of time spent by user on online apps and internet but times spent on calls and messaging is quite less. User use the smartphone for social networking (22 million), online searchers (24 Million), Chatting and webmail's (16 Million), streaming video, maps (16 Million) and accessing web portals (8 Million). Smartphone users are downloading social networking apps and games for entertainment purpose. Smartphone is considered to be used for Socializing, Entertainment and Gaming.

Smartphone sizes are increasing with almost 25% of all smartphones in 2014 having a screen size of 5 inches. Nearly 36% of smartphones launched in India so far in 2014 are priced between Rs. 5000/- and Rs. 10,000/-. This indicates the trend of the companies to reach out to more of the Indian masses. Statistics indicate that 1GB RAM is the new standard in the smartphone sector, with over 90 phones launched so far in 2014 having a minimum of 1GB RAM. When compared to the statistic in 2013, only 93 phones launched in 2013 had 1GB RAM.

So based upon the above, review of literature and taking personal interview of respondents, the below variables were chosen to determine the attributes, consumers prefer while purchasing a Smartphone:

1. Price
2. Brand
3. Features (Camera, Screen Size and RAM)
4. Purpose

The method of conjoint analysis has been to find out attributes in the product that a respondent prefers the most. Hair et al. (1998) has described the concept conjoint analysis as "Conjoint analysis is a multivariate technique used specifically to understand how respondents develop preferences for products or services. It is based on the simple premise that consumers evaluate the value of a product or service by combining the separate amounts of value provided by each attribute."

Consumers are better in giving preferences when appraising different options together (conjointly) during purchase of goods or service rather than evaluating them individually, this method of conjoint analysis makes a respondent to introspect the relative importance of individual attributes for a particular decision (Green and Rao, 1971).

## **REVIEW OF LITEARTURE**

While purchasing the mobile phone, customer is influenced by different factors which ultimately affects the purchase decision. Most important factors which

influence the customers during purchase are physical qualities, advertising, charging and functional facilities, size and weight, recommendations by friends, neighbors, colleagues and pricing (Uddin *et al.* 2014). A consumer chooses a mobile phone based upon its attributes. An overall analysis reveals that users of the all brands do give importance to the requisite of using mobile phone, brand, SIM, screen type, camera, memory, connectivity and battery life which indicates consumers are touchy about technology and system (Patra *et al.* 2013). Researchers identified in India, youngsters give importance to better battery backup and price of the phone as these factor influencing their purchase behavior the most. Youngsters having age less than 20 years focus also on good audio quality as they want the mobile phone must have better system so that they can listen and enjoy the music (Negi *et al.* 2013).

Researchers tried to understand the relationship between the four factors namely price, brand name, feature and social influences during purchase of smartphone and concluded that customers are buying Smartphones and price is not a biggest concern for them. Customers are ready to purchase the smartphone regardless of the price (Malviya *et al.* 2013). Arguably researchers carried a study in Hawassa town and found that consumer most important factor during the purchase of mobile phone is price which is followed by features. Price is one of the most motivational force that influences customers to go for a mobile phone purchase and make an informed decision about the same. The features integrated in a mobile hand set are the most important factor which consumers considers while purchasing the mobile phone (Sata *et al.* 2013). Researchers conducted a study in Korea and found that brand and service quality are most important indicators of making customer's perception. The purpose of using the mobile phone service for social networking, entertainments are higher compared to using for work related purpose (Khayyat *et al.* 2012).

Researchers studied factors that influence customer purchase decision during purchase of new mobile phone among Finnish consumers. Results of the study showed that seven factors illustrate mobile phone choice: innovative features, brand image, price, recommendation, durability and portable features, media influence, and after sales service. The study was conducted in youth and depicts that mobile phone innovative features are the most important in making the ultimate purchase decision. Also, personal recommendation, price was also found substantial during the purchase decision (Mokhlis *et al.* 2012). Researcher found the brand have most preferred attribute while choosing a smartphone in respect of quality, price, technology and durability. The company which satisfies the consumer needs in the competitive market has high preference on brands among the consumers. It was concluded that most of the respondents were selecting the Smartphones for the reason of its 'high quality' and 'Price (Karthikeyan 2011). Researchers discovered that the battery/talk time was the most important factor that influence

the customer during mobile phone purchase. They considered the factors of business functionality, standard parts and processes, and aesthetics and design which were found to be correlated with buying preferences and also business functionality, correlated with the behavioral loyalty (Haverila 2011). Researchers carried out a study in Bangladesh and found that brand image is extremely important to 42% of the total respondents and Price is the second most important factor to the consumer (Ashaduzzaman *et al.* 2011).

Researchers carried out a research in India and revealed that price, functions/ performance of a mobile phone, mobile phone quality plays a significant role in the purchase decision of the smartphone. Price plays an important role in the consumer purchase decision as India is one of the price sensitive country. However, the study also indicates that mobile phone quality and availability has a significant impact on consumer perception choice in selecting mobile manufacturer (Paulrajan *et al.* 2011). (Milena *et al.* 2010) concluded that mobile phone needs to have the important feature as they are important for customer during purchase of smartphone: text messaging, alarm clock, camera and sharing facility and calendar. Researcher carried out study with objective find out preferences of consumers in mobile handsets at the time of purchase. The study concluded majority of the respondents have given importance to mobile phone quality which was followed by price, features, brand & style (Singla 2010). Researcher showed that mobile phone use in the most important determinant of mobile choice, other attributes features, aesthetics and cost are other factors which have effect on the choice of mobile phone brand (Mack *et al.* 2009).

Kumar (2012) found that price, quality and style functions as the most important factors affecting the choice of mobile phones. Researchers conducted a study to evaluate the different mobile phone options customer has and used a multi-criteria decision making approach to find out the mobile phone users preferences order. They compared the different weightings of mobile phone features such as physical characteristics, technical features, functionality, brand choice and customer excitement and found that functionality was the most preferred factor for all mobile phones under examination, with customer excitement and basic requirements being identified as least important (Isiklar *et al.* 2007). Researchers studied that price, brand, interface, and properties are the important factors which is affecting the actual decision amongst mobile phone brands (Karjaluo *et al.* 2005). Researchers surveyed college students to identify the reasons for purchasing the current mobile phone. The results showed that the physical appearance, size and menu of the mobile phones are the most influential factors which are affecting the consumer purchase decision of mobile phones (Salvendy *et al.* 2007).

**Table 1**  
**The Different Levels of the above attributes (Selected for Study)**

<i>Attributes</i>	<i>No. of Levels</i>	<i>Name of Levels</i>	<i>Reason of Selection</i>
Price	3	5,000 Rs, 7500 Rs, 10000 Rs.	Scope of Study and maximum growth in India is in this range Only ( <a href="http://priceraja.com/blog/866-mobile-trends-2014-whats-on-the-manufacturers-minds.html">http://priceraja.com/blog/866-mobile-trends-2014-whats-on-the-manufacturers-minds.html</a> ) and Uddin <i>et al.</i> (2014), Negi <i>et al.</i> (2013), Sata <i>et al.</i> (2013), Mokhlis <i>et al.</i> (2012), Karthikeyan. (2011), Singla (2010), Kumar (2012), Isiklar <i>et al.</i> (2007), <b>Karjaluoto et al.</b> (2005). Unstructured Interview result
Brand	3	Samsung, Nokia, Micromax	Top three brands in India ( <a href="http://time.com/3611863/india-smartphones">http://time.com/3611863/india-smartphones</a> ) and Patra <i>et al.</i> (2013), Malviya <i>et al.</i> (2013), Sata <i>et al.</i> (2013), Ashaduzzaman <i>et al.</i> (2011), Paulrajan <i>et al.</i> (2011), Singla (2010), Karjaluoto <i>et al.</i> (2005) Unstructured Interview result
Camera	3	2MP, 5MP, 8MP	In price range, majorly these camera are available and Patra <i>et al.</i> (2013), Sata <i>et al.</i> (2013), Mack <i>et al.</i> (2009) Unstructured Interview result
Screen Size	2	4.5 Inches, 5 inches	Most growth in this screen size ( <a href="http://time.com/3611863/india-smartphones/">http://time.com/3611863/india-smartphones/</a> and <a href="http://priceraja.com/blog/866-mobile-trends-2014-whats-on-the-manufacturers-minds.html">http://priceraja.com/blog/866-mobile-trends-2014-whats-on-the-manufacturers-minds.html</a> ) and Uddin <i>et al.</i> (2014), Sata <i>et al.</i> (2013), Mack <i>et al.</i> (2009), Isiklar <i>et al.</i> (2007), Salvendy <i>et al.</i> (2007)
RAM	2	512 MB, 1 GB	In price range, majorly these RAM are available ( <a href="http://priceraja.com/blog/866-mobile-trends-2014-whats-on-the-manufacturers-minds.html">http://priceraja.com/blog/866-mobile-trends-2014-whats-on-the-manufacturers-minds.html</a> ) and Patra <i>et al.</i> (2013), Sata <i>et al.</i> (2013), Mack <i>et al.</i> (2009). Unstructured Interview result
Purpose	3	Socializing, Gaming, Entertainment	Basic purpose for using mobile phone, explained above ( <a href="http://www.nielsen.com/in/en/press-room/2012/smartphone-incidence.html">http://www.nielsen.com/in/en/press-room/2012/smartphone-incidence.html</a> ) and khayyat <i>et al.</i> (2012), milena <i>et al.</i> (2010). Unstructured Interview result

## RESEARCH METHODOLOGY

The objective of the study was to determine the preference of youngsters towards the entry level smartphones in India. For fulfilling the above objective, Mixed (Exploratory & descriptive) research design has been used. The above study has been conducted in two phases. In phase one, an in-depth review of literature focusing on identifying various factors playing a major role while selecting a

smartphone brand was conducted. The factors so identified in review of literature were then used to prepare structured questionnaire\* rating the different profile of conjoint analysis consisting of different levels of Price, Camera, Purpose, Brand, Screen Size and RAM. In second phases, sample size of 200 respondents was drawn from Lovely Professional University', School of Business Campus, Chehru in Jan-Feb, 2015 from different programs as tabulated below, using stratified sampling which is part of probability sampling. The details are

**Table 2**  
**Distribution of Sample Respondents from Different Strata**

<i>Course</i>	<i>Total*</i>	<i>Percentage for sample size (5.56) On total of per Crouse</i>
MBA	1060	61
BBA	1503	83
MBA HONS	85	6
B.COM	789	45
M.COM	93	5
Total		200

\* Respondents were divided in different strata depending upon the program, they were studying.

The demographic details of respondents is given as per Annexure I.

### Questionnaire Design

For developing the questionnaire, 20 respondents were interviewed in unstructured manner and they were asked to answer questions as mentioned below:-

1. Which factors (Price, Brand, Design etc.) do you consider while purchasing a smartphone?
2. Which features (RAM, Camera etc.) do you consider while purchasing a smartphone?
3. What is your purpose of purchasing a Smartphone?

Respondents were encouraged to answer these questions freely as in actual purchase scenario extending their answer beyond the options mentioned in questionnaire.

**Table 3**  
**Factor Considering during Purchasing Smartphone**

Price*	12
Brand*	7
Design	5
Operating System	7

**Table 4**  
**Features Considering during Purchasing Smartphone**

Battery Backup	10
Camera*	15
RAM*	10
Touch screen	8
Sound quality	6

**Table 5**  
**Purpose of purchasing a Smartphone**

Socializing*	12
Ticket booking	3
Entertainment*	10
Photography	7
Gaming*	9
Study	6

\*Factors in bold were considered for study

For developing the questionnaire for conjoint analysis, total number of combinations were

3 (Price) X 3 (Brand) X 3 (Camera) X 2 (Ram) X 2 (Screen Size) X 3 (Purpose) = 324.

An orthogonal design employing a subset of the full list of attribute combinations was generated as beyond about 25 or 30 combinations, as filling in responses was tedious task, respondents fatigue may probably induce in induce inaccurate or disinterested responses, affecting the validity of the procedure (**Nargundkar 2008**). However respondents were approached as per their discretion in comfortable setting so as to reduce errors if any.

### SCOPE OF STUDY

India will be having more than 200 million smartphone users and will be becoming the second largest market of smartphones by 2016, according to market research firm eMarketer. Chinese smartphone OEMs (Xiaomi, Hyuwei, Gionee etc.) are rapidly growing their sales and share in the Indian smartphone market and now buyers have a lot of options for the smartphones. As now a day's smartphone have become more affordable, customers can easily switch from one company to other company. It makes it very difficult for the companies to attract the customers. To entice the customers, companies must know which attributes customers prefer the most rather than the other attributes. This will not only help the companies to design their new products but also will help them to understand the need of customers and satisfy it profitability.



The study has been conducted to understand Consumer buying preference towards smart phones. The study consists of respondents from Lovely Professional University which houses respondents from 28 states of India and more than 11 countries, so this will better represent the population and the range of Smartphone. Study revolves around smartphone of selected brands of price range 5000rs to 10000rs, having Camera ranging from 2MP-8MP with RAM of 512MB-1GB, screen size of 4.5-5 Inches used for purpose of Socializing, Gaming and Entertainment. Around 36% of smartphones launched in India in 2014-15 are lying in the price range of Rs 5001 and Rs 9999.

### NEED OF STUDY

The use of smartphones and their applications has increased manifold in recent years, however research studies that explore how consumer segments shape their attitude and value smartphone functionality, still remains underexplored. There are numerous smartphone brands available in India and many people still to buy smartphone. This is the right time when marketers have to peep into the mind of the consumers to develop the best possible smart phones with the combination of most preferred features as per the consumers. This research study pursues to provide a holistic view of consumer preferences by applying conjoint analysis.

### RESULTS AND DISCUSSION

The below is the procedure used for Conjoint Analysis to determine the customer preferences:

**Formulation of Problem:** Based on the research, the attributes were selected as per table 1 which were important in influencing consumer preference and were actionable.

A partial list of combinations (16 combinations) was chosen.

**Construct the Stimuli:** In performing conjoint analysis full-profile approach was used in which full profiles of brands were constructed for all the attributes. The fractional factorial designs was used to decrease the number of profiles from 324 to 16 profiles.

**Decision on the Form of Input Data:** The metric form of rating was used. Respondents have to rate from 1 as least preferred to 10 as highly preferred on different profiles. The dependent variable was consumer preference. The basic **conjoint analysis model** is represented by the following formula:

Where:

$$U(X) = \sum_{i=1}^m \sum_{i=1}^{k_i} \alpha_i \chi_i$$

**Table 6**  
**Smartphone Attributes and Levels**

<i>Attribute</i>	<i>Number</i>	<i>Description</i>
Brand	Samsung	1
	Nokia	2
	Micromax	3
Camera	2MP	1
	5MP	2
	8MP	3
RAM	512 MB	1
	1 GB	2
Screen Size	4.5 Inches	1
	5 Inches	2
Purpose	Socializing	1
	Gaming	2
	Entertainment	3
Price	Rs 5000	1
	Rs 7500	2
	Rs 10000	3

One of such profiles is as follow

<i>Brand</i>	<i>Camera</i>	<i>Ram</i>	<i>Screen Size</i>	<i>Purpose</i>	<i>Price</i>
Samsung	8mp	512MB	4.5inch	Socializing	5000

- $U(X)$  = overall utility of an alternative  
 = the part-worth contribution or utility associated with the  $j$ th level  
 ( $j, j = 1, 2, \dots, k_i$ ) of the  $i$ th attribute ( $i, i = 1, 2, \dots, m$ )  
 $x_{ij}$  = 1 if the  $j$ th level of the  $i$ th attribute is present  
 = 0 otherwise  
 $k_i$  = number of levels of attribute  $i$   
 $m$  = number of attributes

The importance of an attribute,  $I_i$ , is defined in terms of the range of the part-worth, across the levels of that attribute:

The attribute's importance is normalized to ascertain its importance relative to other attributes,  $W_{i=}$ :

$$W_i = \frac{I_i}{\sum_{i=1}^m I_i}$$

The model estimated may be represented as:

$$U = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + b_{10}X_{10}$$

Where:

- $X_1, X_2$  = dummy variables representing Brand
- $X_3, X_4$  = dummy variables representing Camera
- $X_5$  = dummy variables representing RAM
- $X_6$  = dummy variables representing Screen Size
- $X_7, X_8$  = dummy variables representing Purpose
- $X_9, X_{10}$  = dummy variables representing Price

**Table 7**  
**Smartphone Attributes Level Coding**

S.No	Variables and Levels	Rating	
1	Brand		
	Samsung	1	0
	Nokia	0	1
2	Micromax	0	0
	Camera		
	2MP	1	0
	5MP	0	1
3	8MP	0	0
	Ram		
	512MB	0	
4	1 GB	1	
	Screen size		
	4.5 inch	0	
5	5 inch	1	
	Purpose		
	Socializing	1	0
	Gaming	0	1
6	Entertainment	0	0
	Price		
	Rs 5000	1	0
	Rs 7500	0	1
	Rs 10000	0	0

This table portrays the number of levels or categories of the factors used in the conjoint model. It is clearly visible in the table that there are 3 levels of brands, Camera, Price and Purpose, Samsung, Nokia, Micromax and 2MP (Secondary camera), 5MP and 8MP and Rs 5000, Rs 7500 and Rs 10000 and Socialization, gaming and entertainment respectively. There were two levels of RAM and Screen Size, 512MB, 1GB and 4.5 Inches, 5 Inches respectively.

Variable rating table depicts that different levels of variables were coded with ranges from 1-0 as there are three levels in the variable brand (Samsung, Micromax and Nokia) where Samsung was coded as 1, 0, and Micromax was coded as 0, 0 and Nokia was coded as 0, 1. Same procedure was followed in the other variables as well. The data was entered in the SPSS as per the variable rating. The respondents were requested to give rating to different profiles and then average of each profile was considered. Rating was dependent variables and all other variables were taken as independent variables and linear regression was applied.

**Table 8**  
**Linear Regression Equation with Dummy Variable coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	7.011	.204		34.427	.000
Samsung	-.197	.101	-.346	-1.951	.109
Nokia	.022	.101	.039	.221	.834
CameraMP2	-.252	.140	-.509	-1.791	.133
CameraMP5	-.049	.153	-.096	-.320	.762
GB1	.058	.081	.116	.709	.510
Inch4.5	.010	.081	.020	.123	.907
Socializing	-.332	.101	-.672	-3.286	.022
Gaming	-.150	.121	-.262	-1.238	.271
RS5000	-.164	.101	-.331	-1.617	.167
RS7000	-.347	.121	-.608	-2.872	.035

a. Dependent Variable: Rank

For calculating the utility of each variable, as per dummy variable coding of level 3 acting as the base level, it can be solved as

$$a(\text{Samsung}) - a(\text{Micromax}) = -.197$$

$$a(\text{Nokia}) - a(\text{Micromax}) = .022$$

$$a(\text{Samsung}) + a(\text{Nokia}) + a(\text{Micromax}) = 0$$

On solving the above three equations, we get

$$a(\text{Samsung}) = -0.2$$

$$a(\text{Nokia}) = 0.21$$

$$a(\text{Micromax}) = -0.007$$

Similar way, all the utilities were calculated and below are the results after solving all the equations

**Table 9**  
**Results of Conjoint Analysis**

<i>Variables</i>	<i>Utility</i>	<i>Range</i>	<i>Average importance score (in %age)</i>
<b>Brand</b>			
a(Samsung)	-0.2	0.41	24.80
a(Nokia)	0.21		
a(Micromax)	-0.007		
<b>Camera</b>			
a(2MP)	-0.15	0.25	15.12
a(5MP)	0.051		
a(8 MP)	0.1		
<b>RAM</b>			
a(1 GB)	0.058	0.116	7.02
a(512 MB)	-0.058		
<b>Screen Size</b>			
a(4.5 Inches)	0.1	0.2	12.10
a(5 Inches)	-0.1		
<b>Purpose</b>			
a(Socializing)	-0.171	0.331	20.02
a(Gaming)	0.01		
a(Entertainment)	0.16		
<b>Price</b>			
a(5000 Rs)	0.006	0.346	20.93
a(7500 Rs)	-0.176		
a(10000 Rs)	0.17		
TOTAL Range		1.653	

The table presents the utility or part worth coefficients for each level of the factors in the model. Range for each attribute was calculated by subtracting Maximum minus Minimum Value. Adding the same for all attributes, total range was calculated and then the average importance had been derived by dividing the individual range of all the variables with total range for brand  $0.41/1.653 \times 100 = 24.8\%$ . Similarly the relative importance weights of each attribute were calculated based on ranges of different part-worth

### INTERPRET THE RESULTS

The respondents in survey places greater importance to Brand (24.8) followed by Price (20.9) then gives importance to Purpose (20), Camera has little importance of (15.2) and lesser importance to Screen Size (12.1) and RAM(7.1) respectively.

**Table 10**  
**Attributes in Order of the Importance**

<i>Attributes</i>	<i>Average Importance</i>
BRAND	24.8%
PRICE	21%
PURPOSE	20.1%
CAMERA	15.1%
SCREEN SIZE	12.1%
RAM	7%

### Assessing Reliability and Validity

**Table 11**  
**Regression Model Summary**

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.930 <sup>a</sup>	.865	.596	.16221

a. Predictors: (Constant), R7500, Gam, Inch4.2, GB1, Nokia, MP2, MP5, R5000, Socializing, Samsung

b. Dependent Variable: Rank

This table reveals the important information about the proportion of variance explained in the dependent variable of preference by all the test variables in the model. The R square value of .86 reveals that the model explains nearly 86% variance in the dependent variable of preference which is due to the test variables that are considered. The R value of .93 indicates the amount of correlation between the observed preference score and the model- predicted preference score.

### CONCLUSION

Conjoint analysis a widely used research tool in the marketing literature, is used to gain insights into how customers give different utilities to certain product on different levels. The objective of the study was to determine the preference of consumers towards entry level smart phones. In conjoint analysis it was found when the customer purchases a smartphone, Brand is the most important attribute used as a selection variable while purchasing, followed by Price and Purpose respectively. The Camera, Screen size and RAM were found to play least role in purchasing decision.

The implication of this study lies in new product development. The study may help the marketers finding the best possible combination of features that convince the customers to buy a smartphone. As per the study marketers should focus on developing a strong brand recognition and recall in the market to reach in the consideration set of the customers while making a purchase decision. Brand

development must be considered as the first priority and an investment rather than a cost. The managers must apply cost effective techniques so that they can lower down the prices to increase the sales. Further marketers must consider the purpose of buying smartphone while designing the advertising campaigns. To entice the youngsters' entertainment features of the smartphone must be highlighted followed by socializing and gaming. Rather than promoting the features of the product like Screen Size, Camera & RAM etc. priority needs to be given on branding, pricing and purpose as from customer prospective, these attributes were found to be more important than others.

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**ANNEXURE - I**  
**DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

	<i>Categories</i>	<i>count</i>	<i>Percentage</i>
Gender	Male	125	62.5
	Female	75	37.5
Age group	Below 18	0	0
	18-23	180	90
	24-29	20	10
	30-35	0	0

The data presented in the above table indicates that the sample is more of males as compared to female respondents as they are indicated by 62.5 and 37.5% respectively. Age analysis of respondents indicates that most of the respondents fall in the age group of 18-23 years as it was indicated by 90% respondents in the sample.

