Abstract: Background & Objectives: Smartphone is a kind of product which is rapidly growing and gradually impacting consumers’ behaviour, their daily activities, their social activities, business activities, marketing, education, and many more. Hence, it is required to understand key factors that influence purchases intention of a smartphone which would enable to predict user’s motive toward purchasing a smartphone.

Methods: Data was collected through a structured questionnaire consisting of 22 items which was developed from previous studies, each item of the questionnaire was rated on a 5-point Likert scale (5 = strongly agree to 1 = strongly disagree) to identify the relative influence of Consumer Purchase Intentions towards Smartphone. A sample of 151 respondents was chosen using non-probability convenience sampling method from among consumers living in the Rajkot city. Reliability, KMO, and Bartlett’ tests were run to judge their appropriateness.

Results: The study reveals seven major components like Product Features, Price, Brand Image, Promotional Offers, Service centre, Brand Image and Smartphone looks as influencing factors for Purchase Intentions towards Smartphone.

Keywords: Factor analysis, Purchase Intentions, Smartphone, price, Brand, Feature.

1. INTRODUCTION

The global smartphone market has become saturated and innovation has slowed, vendors have increasingly looked to other means to promote sales and maintain profits. One popular strategy has been to introduce new products and experiences – such as new tablets, smart watches, virtual reality, accessories, music, and video services. Another technique is to dive deeper into developing markets. Across the US, China, and EU5, smartphone sales have surpassed 90% of the potential market. Even in Latin America – specifically Brazil and Mexico, smartphone sales also exceed 80%.

With a population of 1.3 billion people and the second-largest mobile market after China, India is the next major focal point for smartphone vendors from around the world. The Indian smartphone market recorded 29% sequential growth in the third quarter of 2017 owing to festive season sales wherein the statistic depicts the unit shipments of smartphones in India from the first quarter of 2011 to the third quarter of 2017. In the third quarter of 2017, around 39 million smartphones were shipped in India.
As per the recent Quarterly Mobile Phone Tracker by IDC for Q3 2017 discloses that Xiaomi along with Samsung captured 23.5 percent market share in the last quarter. Furthermore repost states that Xiaomi nearly tripled its shipments year-on-year and doubled quarter-on-quarter in last quarter. The market research firm added Samsung had a "record breaking quarter" where it registered 39 percent sequential growth quarter-on-quarter and 23 percent year-on-year.

**II. LITERATURE REVIEW**

Chen, Y. S., Chen, T. J., & Lin, C. C. (2016) undertook a research entitled “The Analyses of Purchasing Decisions and Brand Loyalty for Smartphone Consumers.” The objective of this study was to analyze consumers’ purchasing behavior, determinants of purchasing decision, and factors of brand loyalty of smartphones. A total amount of two hundred and fifty-two smartphone users were contacted to collect the data. The findings states that external factors significantly influenced customers on choosing smartphones, a customer purchased a smartphone because of the demand for using it. Furthermore On the contrary, few customers would buy a smartphone due to the pursuit of vogue or modern trend and the influences by other people. The majority of respondents gave opinion that the price is the internal functions of a smartphone which is an important factor in making a purchasing decision. Respondents could quickly recall the symbolic logo of the brand and the after-sale service would affect their willingness of rebuying the same brand.

Aftab Uddin, M., Xu, H., & Tahlil Azim, M. (2015) conducted a research work and analyzed various factors that were affecting mobile handset buying pattern among 21 items that were identified by using past literature. The data were collected from 432 people using convenience and snowball sampling techniques and factor analysis was applied on 21 items, KMO was 0.869 which means the sample were adequate to perform factor analysis. The findings reveal that seven features i.e., physical attributes, brand image, uniqueness, emotional appeal, ease of operation, social identity, and price, were the major factors of purchase decision.
Dave A.C, M Brahmbhatt (2015) conducted a research work entitled “Factors Affecting the Choice of Mobile Phones: A Factor Analysis Based on Pilot Study”, aimed to identify the major factors that affect consumers decisions and also tried to examine the impact of age, gender and its interaction on the principal components which influenced the buying decision of mobile phones. The data have been collected from 105 respondents using convenience sampling method. The analysis has fragmented 30 items into 6 components which account for 74.85 % of variance in buying behavior for mobile phone. Analysis has revealed that age and gender did not have any significant effect on these factors but interaction of age and gender had influence on them.

Nath, S. D, et. al. (2015) undertook a research work entitled “Identification and Measurement of the Factors Affecting Satisfaction Level of Smart Phone Users: Empirical Evidence from Bangladesh” with the intention to identify and measures of the factors affecting satisfaction level of Samsung smart phone users. Researchers have considered Basic Service, Value Added Service, Technical Service, and Physical Service, User Related Service as an independent variable and customer satisfaction and loyalty as a dependent variable. The research analysis states that technical services and value added services (such as Apps) are the most influencing attributes toward customer satisfaction in which value-added service has most influence on creating satisfaction for smart phone users, followed by technical service.

Mostafa, R. H. (2015) conducted a research work on “The Impact of Country of Origin and Country of Manufacture of a Brand on Overall Brand Equity” which aimed at identifying influence of country-of-origin of a brand (COB) and country of manufacture (COM) on the overall brand equity (OBE) and to examine the facilitating role of consumer based brand equity (CBBE) on the relationship between COB and COM and overall brand equity (OBE). The data was collected from 600 respondents and were analyzed. The reliability of the multi-dimensional constructs was applied to verify and Cronbach’s alpha has been used to measure the inter-item consistency of the research. The research findings specify that both COB and COM have significant influence on CBBE, COM was observed to have less impact on CBBE. In addition, COB and COM have direct influence on the overall brand equity. Furthermore, it revealed that Perceived quality has been considered as an integral aspect in developing constructive brand equity.

Dr Isabell Handler (2015) studied the role social attributes play with respect to consumers, using the example of a mobile phone, the ‘Fair phone’ and the product was developed by a Dutch-based organization applying the Fair-trade concept on a smartphone. In order to carry out research work, two questions were explored: the key features for making a purchase decision whether the social attributes of the ‘Fair phone’ can motivate them for a purchase. The data was collected from 879 respondents and the data analysis states that top 3 ranked items were technical specifications, durability and quality of camera. Moreover, analysis of ethical features of the Fair phone reveals that the ‘Design: Fair phone focuses on longevity and reparability to extend a phone’s life’ was considered as an integral aspect, followed by ‘Durability (shock resistance, long-lasting battery)’.

Sama R. & Jani M (2014) conducted a research entitled “A study on Factors affecting Consumer Buying Behavior while buying new Cell Phone Connection in Ahmedabad City”, intended to identify consumer buying motives in mobile phone markets. In order to determine the motivations to use a mobile phone, non-probability convenience sampling data has been used to gather data from 190 customers. The research finding states that price and properties were the most influential factors affecting the purchase of a new cell phone, audibility and friends’ recommendation were regarded as the prominent factors in the choice of the mobile phone operator.

Riyath & Musthafa (2014) conducted a research on “Factors Affecting Mobile Phone Brand Preference: Empirical Study on Sri Lankan University Students” aims to find out factors affecting the brand preference among Sri Lankan university students. The results reveal that price was an important factor for brand preference of mobile phones Moreover it states that the new launched products with premium prices the students would wait for the price to reduce after which they would buy the product. Students belonging to the middle and lower income group took decision mainly based on price. The quality aspects of mobile
phones such as network coverage, display, sound; camera, speed, battery and user-friendliness and Stylish appearance such as dimensions (body), weight, shape, colors and attraction also play a vital role in brand choice decision of mobile phones.

Juwaheer, T. D et. al.(2014) undertook a research work with an aim to study various factors which influences the selection of mobile phones, researcher undertaken factors such as branding, pricing, mobile phone features, lifestyle, and demographic variables such as age groups and gender have been abstracted into the research framework. The data has been collected from 150 respondents and Correlation analysis was done to measure the relationship between factors and mobile phone selection. The analysis reveals that price is the most influencing parameter followed by perceived brand value for selection of mobile phones. It also indicated that mobile phone features and young consumer’s lifestyle are impacting on mobile phone selection.

Malviya et al. 2013 studied Factors Influencing Consumer’s Purchase Decision towards Smartphones in Indore. The research aims to identify the relationship between the four factors specifically price, brand name, feature and social influences during purchase of smartphone. Research study concluded that customers are buying Smartphones but price is not a biggest concern for them, Customers are ready to purchase the smartphone regardless of the price. Furthermore Social Influence acts for the Brands used by the people as a status symbol and Features form the product specifications and hence consumers pay high attention towards the features of a Smartphone.

Shahzad & Sobia (2013) conducted a research entitled “Investigating the Factors Affecting Youth Brand Choice for Mobile Phones Purchase. It aimed at examining the factors that affecting youth brand choice for mobile phone purchase among private universities students of Peshawar. The brand choice of youths was considered as dependent variable in the research and various independent variables includes quality, features, friends & family, brand image, innovative features, effective promotion, celebrity endorsement, user-friendliness, stylish appearance, post-purchase services and price. The data was collected from 70 respondents by applying convenient nonprobability sampling and was analyzed based on the ANOVA, Correlation and Regression analyses. The research finding states the brand choice of youths appears to be influenced largely by the quality, brand image and recommendations by family and friends.

John M. Malasi (2012) conducted a research on “Influence of Product Attributes on Mobile Phone preference among university students: A Case of Undergraduate students” intended to examines the influence of product attributes on mobile phone preference among undergraduate university students. The findings of the study indicated that varying the product attributes’ has an influence on the undergraduate students’ preferences on mobile phones. Various aspects of product and brand attributes were considered such as color themes, visible name labels, and mobile phone with variety of models, packaging for safety, degree of awareness on safety issues, look and design of the phone. Research finding indicates that these attributes have a significant influence on the student’s preference of mobile phone.

In the research work entitled “Exploring the relationship between urbanized Malaysian youth and their mobile phones” conducted by Balakrishnan, V & Raj, R. G. (2012) intended to study mobile phone usage, extending work beyond teenage years to examine the role of mobile phones among urbanized Malaysian youth, specifically of university students. They have considered four main categories explicitly, mobile phone purchasing factors and reasons to use, mobile phone usage and also behavioral issues. The data has been collected from 417 respondents. The results indicated that the respondents considered brand, trend and price to be the three most important purchasing factors while socializing and privacy emerged as the two most important reasons to use mobile phones. Furthermore it was been found that most of their respondents would not like to go anywhere without their mobile phone and they would feel distressed when they do not have their phones with them. They had defined this thing as mobile phone attachment and respondents will be annoyed and frustrated when they cannot use their phone and would not be able to manage their routine without their phones and hence Mobile phone addiction and inappropriate use were observed among respondents.
Singh, J., & Goyal, B. B. (2009) conducted a research study entitled “Mobile Handset Buying Behavior of Different Age and Gender Groups” aims to study the differences in importance to be given to various factors by different age and gender group. The data was collected from 240 respondents, convenience sampling method and two-way ANOVA was used to analyze the data. The finding revealed that people in the age group of 18-30 years were less price sensitive and for them ‘physical appearance’, ‘brand’, ‘value added features’, and ‘core technical features’ were more important. Moreover in the age group of 50 years and above have given greater importance to ‘price’. Outcomes of ANOVA showed that all the variables under research were independent as none of them were affected by age, gender or by its interaction.

In the research work conducted by Mallenius, S., Rossi, M., Tuunainen, V.K (2007) intended to find factors that determine the adoption and usage of mobile devices and services by elderly population. In order to carry out the research work data was collected using semi-structured interviews with persons who represented different focus groups: mobile device manufacturers, mobile operators, voluntary organizations aiming at educating elderly people, public and private home care and nursing homes, as well as welfare development institutions. Research analysis revealed that functional capacity plays a very vital role in case of elderly people and hence mobile should have such capacity that they are able to understand it and use properly. Mobile phones offer some sense of security to elderly people projecting to purchase of mobile phones. Furthermore it was observed that many a times children buy mobile phones to their elderly parents, but the devices are unfortunately often left in drawers because of the usability problems. Therefore, findings specify that elderly people are interested in using mobile phones and services, but these services need to deliver real value for them.

### III. Research Methodology

**Research Objectives**

This study aims to find out factors Influencing Consumer Purchase Intentions towards Smartphone. Following are set to be the Research objectives of the study:

1. To find the major dimensions of factors involved in consumer purchase intentions of smartphone.
2. To explain the relative impact of each factor to the total variance explained.

In the present paper the data was collected through both primary and secondary sources. The primary data was collected using a structured questionnaire having 22 statements regarding factors influencing Consumer Purchase Intentions towards Smartphone along with the demographic information of the respondents. Each item of the questionnaire was rated on a 5-point Likert scale (5 = strongly agree to 1 = strongly disagree) to identify the relative influence of Consumer Purchase Intentions towards Smartphone. A sample of 151 respondents was chosen using non probability convenience sampling method from the consumers living in the Rajkot city.

**Demographic Profile of the Respondents**

Out of total 151 respondents, 66.2% are male and 33.8% are female which implies that the selected sample is sufficiently representative of both male and female. Majority of the respondents are young [below 20 years (21.9), 20 – 30 years (60.3) and rest are more than 30 Years. Majority of the respondents are either graduate (54.3%) or postgraduate (21.9%) and rest belonged to other categories.

**Reliability Test:**

A 22-item questionnaire was designed by the researcher to gather primary data. In order to test the reliability of the measure, Cronbach’s Alpha (α) was calculated and it turned out to be 0 .70 which indicates relatively strong internal consistency of the items. To reveal the major dimensions, Principal Component Analysis Method was used.
Table 1: Reliability Statistics

<table>
<thead>
<tr>
<th>No. of Items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>0.70</td>
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</tbody>
</table>

Source: Calculated in SPSS 16

**KMO and Bartlett’s Test:**

To check the adequacy of the data before performing factor analysis KMO test was applied, result of KMO test may varies from 0 to 1. If it indicates the value closer the score to 1, it reflects the higher adequacy of the data. If KMO score of more than 0.9, 0.8, 0.7, 0.6, and 0.5, it indicates marvelous, meritorious, middling, mediocre, and miserable respectively (George and Mallery, 2011). The KMO measure of sampling adequacy for this data found to be 0.70, which indicates that the available data is adequate to perform factor analysis. Bartlett’s test of Sphericity finds this instrument is perfect, which shows the suitability of the intercorrelation matrix of the 22 variables for factor analysis, is significant at the 0.00 level. Bartlett test of Sphericity measures the normality of the distribution. A significance value, p<0.05 indicates that these data won’t produce identity matrix, and hence acceptable for factor analysis (George and Mallery, 2011).

**Table 2: KMO and Bartlett’s Test**

<table>
<thead>
<tr>
<th>Source: Calculated in SPSS 16</th>
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</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
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<td></td>
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<td></td>
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**Table 3: Total Variance Explained**

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>% of Variance Cumulative</td>
<td>Total % of Variance Cumulative</td>
<td>Total % of Variance Cumulative</td>
</tr>
<tr>
<td>2</td>
<td>2.671 12.143</td>
<td>30.244</td>
<td>2.671 12.143</td>
</tr>
<tr>
<td>3</td>
<td>1.926 8.752</td>
<td>38.996</td>
<td>1.926 8.752</td>
</tr>
<tr>
<td>4</td>
<td>1.671 7.597</td>
<td>46.593</td>
<td>1.671 7.597</td>
</tr>
<tr>
<td>5</td>
<td>1.286 5.846</td>
<td>52.439</td>
<td>1.286 5.846</td>
</tr>
<tr>
<td>6</td>
<td>1.146 5.209</td>
<td>57.648</td>
<td>1.146 5.209</td>
</tr>
<tr>
<td>7</td>
<td>1.044 4.744</td>
<td>62.391</td>
<td>1.044 4.744</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

(Source: Calculated in SPSS 16)

In order to find out more interpretable results solution, Varimax factor rotation was applied using the minimum eigenvalue of one as the criterion to control the number of factors extracted. The analysis resulted in seven homogeneous sub-scales with the eigenvalues more than one. The total percentage variance explained by these seven factors of the overall variance of the data was 62.39%, which satisfies the percentage of variance criterion for social science research as quoted by Hair et al. (1998); Safiek Mokhli et al. (2012). All the variables are grouped meaningful into the factors with high loadings.
The table above shows the loadings of the variables on 7 factors extracted.

**Component 1 – Product Features**

This factor is labeled as ‘Product Features’ and is a dominating factor which explained 18.1% of the total variance of the data. The factor reveals importance pertaining to the new Features of Smartphones which now nowadays companies offers like Processing power, operating system, Battery life, camera, Network Technology, Connectivity, Power point files, and word files feature, Fingerprint sensor which is relevant to the findings of AC Dave, M Brahmbhatt (2015), Aftab Uddin et al., (2015)

**Component-2- Price**

This comzponent accounts for 12.14 % of the total variance and is defined by five items such as Willing to buy at Higher Price, Smartphone from Certain countries, Considers Higher price high quality, do not consider price while Buying, Certain Brands of Smartphones. Price of a product is considered to be one of the most deep-seated catalysts in any purchase decision (Chapman and Wahlers, 1999, Munnukka, 2005; Mallenius et al., 2007, M. Aftab Uddin et al., 2015)

**Component 3 – Brand Image**

Component 3 can be termed as ‘Brand Image ‘because the items loading at this factor refer to do not trust newly introduced smartphone, prefer to buy a trustworthy brand and Brand reflects my personality in influencing consumer choice of smartphone. People take pride of using products of specific brand (Duarte and Raposo, 2010, Aftab Uddin et al., 2015, AC Dave, M Brahmbhatt 2015). This factor accounts for of 8.75% the total variability of the items.

**Component 4 – Promotional Offers**

This factor accounts for 7.60 %of the total variance. This component has been is defined by three items relating to ‘Promotional Offers’ like EMI, COD options, model at Reduced price and Comparing price of smartphone.
Component 5 – Service center

The fifth factor explains 5.85% of the total variance and does labeled ‘Service center’, as the items comprise the availability of service centers.

Component 6 – Brand Name

The 6th factor, which explains 5.21% of the total variance which is talking about influence of Brand name on Smartphone purchase decision Dave AC, Brahmbhatt M (2015). Thus, this factor is named the as Brand name.

Component 7 – Smartphone Looks

It explains 4.74% variance of the dependent variable under consideration of Smartphone color. Findings of Aftab Uddin et al. (2015) also portrayed the same situations.

IV. FINDING AND CONCLUSION

In the present scenario when technology is changing rapidly, smart phone usage in day today life has been increased to the great extent and one cannot imagine life without Smartphone. The current study aims to ascertain the factors which influence Purchase Intentions towards Smartphone. It revealed seven major components like Product Features, Price, Brand Image, Promotional Offers, Service center, Brand Image and Smartphone Looks which influence consumer Purchase Intentions towards Smartphone. Product feature such as Processing power, operating system, Battery life, camera, Network Technology, Connectivity, Power point files, and word files feature, Fingerprint sensor are significantly focused by respondents. The second component was named as Price as it included parameters such as willingness of customer to buy at Higher Price, purchase of smartphone from certain country, consideration given to highly priced products delivering higher quality and selection of certain specific brands of Smartphones. Customers also prefer to buy trustworthy and reputed brand that adds to their personality. Moreover along with product features and brand Image customers gives due importance to the price, payment options and promotional schemes.

V. LIMITATION

Despite this portion of the current research provides some insights into factors which influence Purchase Intentions towards Smartphone. Further research work in this area might be carried out by using larger sample size in order to facilitate more generalized result. The study was conducted in the city of Rajkot only, more number of cities and states could be covered up in order to generalize the results of the study.

References


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Rinky Trivedi, obtained MBA degree in Marketing Management from Gujarat Technological University. She has secured 7th position at Saurashtra University and topped the College in final year B.B.A in the year 2009. Currently she is pursuing her PhD from C. U. Shah University, Wadhwan, and Gujarat. She has 7 years of work experience. Currently she is working as an Assistant Professor in Department of Management at Marwadi Education Foundation’s Group of institutions, Rajkot. Gujarat, India. She is dealing with the subjects like Marketing Management, Organization Behavior, Human Skills, and Environment Management. She has attended various FDPs, seminars and has presented papers at National & International Conferences and Journals.

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