# A Model on Factors Affecting Customer's Smart Phone Identification

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**Abstract:** Smart phones have become a necessity in human life.There are several factors that influence customers buying decision of smart phones. In the present competitive environment it is necessary for smart phone companies to identify the level of influence of such factors on customers so that they can perform strategic marketing. The factors were identified from literature reviews, market research. A questionnaire is prepared for the same and survey is conducted, analysis is performed by the help of IBM SPSS software. Finally model is created with the help of AMOS. The model establishes a causal relationship between the factors towards customer perception.

**Keywords:** customer perception, identification, influencing factors.

## 1. Introduction

Nowadays, smart phones have become an integral part of human daily life and personal communication across the globe. With dramatic increase in smart phone usage in recent years, people take into account various factors while they decide purchasing a smart phone. The impact created by online marketing is one among them. There are other several factors influencing its selection. These factors are needed to be analysed and there relative influence have to be found out. India has become the second largest smart phone market in May 2016. With the growth and competition of the smart phone industry, developing a better understanding of what factors influence customers to smart phone brands has become an important issue for the industry as well. Smart phone identification study can give strategic suggestions for smart phone marketing. Since proper customer identification can help them for more market focus and also compared with mass marketing, targeted marketing might generate revenues and profits more efficiently. Marketing landscapes are changing in last couple of decades where by customers are not mere passive receivers of company messages but are actively involved in interactive relationships. Customer interactions with companies are shifting from traditional one way mass media like print, radio and television to interactive online, social and mobile platforms. With the proliferation of the competing brands in the marketplace, identification of customers is an imperative for marketing managers. This study has been designed with intention to identify the factors affect customers to choose their smart phone. It focuses on probable reason that the customers consider to make their purchase decision regarding smart phone. The results of this study may provide strategic suggestions for smart phone marketing.

## 2. Literature Review

There are many social and interpersonal factors that influence customers to decide about any product and so happen in smart phone also. Age and gender are very common factors that affect individual's decision makings. Age and gender differences individual heterogeneity is the variation that results from demo-graphics, personality, and socio-cultural influences [1]. Personal distinctiveness or internal causality, governs individuals' presentation of consistent attitudes and behaviors towards specific objects or events. Of the individual heterogeneities, demographics are salient variables that are often used in studies examining technology adoption [2]. Age affects individuals' attitudes and behaviors. These differences originate from the bio-physical and psychological changes that occur as age increases [3]. Younger people are more future-oriented, and they perceive time as time since birth and open-ended, while more elder counterparts are present-oriented and perceive time as time left in life and limited. Different perspectives of the passage of time cause older people to emphasize socio emotional experience and younger people to focus on skills and knowledge. In a similar vein, gender also produces distinctive attitudes and behaviors in men and women. Individuals are nurtured under gender roles that drive individuals to acquire masculine/feminine concepts and relevant skills, and thus develop varied value systems. Self-construal theory claims that sex-specific self-construal causes individuals to process information differently [4]. Men are perceived as independent and self-oriented while women are viewed as

dependent and relationship-oriented. Men and women process information using different socially-constructed cognitive structures and there behavioral patterns are linked to gender. The effect of perceived usefulness on behavioral intention was greater for men than for women because men are more task-oriented. In a recent study on factors influencing buyer behavior of smart phone buyers in India, the researchers studied the various types of marketing strategies adopted by market to acquire the attention and cognition of both existing and potential customers, and to study what role these marketing strategies play in consumer buying process. According to the results income, advertising and level of education in a family are the determining factors of owning a smart phone [5]. There is a defense mechanism that helps people deal with emotional conflict and feel better about them and thus relates to personal identity called ego. The ego-defensive function is being served when the consumerperceives buying the brand as contributing to their esteem orboosting their ego. Alternatively it is self-image of the consumer that reflected [6].[7] An investigation done in Finland about consumer purchasing motives in smart phone markets and results indicated that pricing is the most influential factor affecting the purchase of a new smart phone. It is always be true that for common people price is really an influencing factor. [8] Brands present an extrinsic cue with which consumers can infer the quality of a product. Brands also project an intrinsic identity that is manipulated by brand managers to differentiate it from competitors. The personification of a brand enables consumers to interact with and establish relationships with the brand. Prior studies have expounded two mechanisms that motivate consumer brand identification. One is the need for consistency. Consumers may search for a brand with a salient identity that matches their actual self [9]. High identity similarity/congruence between consumers and a brand facilitate strong consumer belongingness and generate identification [10]. The second mechanism is the need for self-esteem [11]. The closer consumers approach their ideal self, the better they feel, which helps raise self-esteem. Thus, a brand that matches a consumer's ideal self can earn his/her attachment. Usage is an important factor while choosing a smart phone. There are both rational and emotional features in using. A lot of consumer's choice may be having both rational features (e.g. communication, time management) as well as emotional features (e.g. games, music, camera, and application). The younger the consumer the more he would prefer emotional rather than rational features in mobile phones [12]. Customers' decisions of purchasing smart phone depend on rational as well as emotional factors. A study conducted in Kenya to understand the influence of product attributes on smart phone preference indicated that varying the product attributes' has a strong impact on the preferences on smart phones[13]. Consumers observe reference-dependent comparative attribute levels rather than absolute attribute levels of a product in their actual purchasing process [14]. To understand about the recent attributes in smart phones a market research is performed. With the reference to online market sites like flipkart, amazon, snapdeal, many of the important attributes customers looking forward were found out. They are display size, display type, screen resolution, weight, design, color, operating system, processor type and core, user interface, Ram, internal storage, external storage, primary camera resolution, secondary camera resolution, flash light, speaker type, dual sim support, VoLTE support, battery capacity, sensors. In the present scenario online shopping are becoming more trending [15]. It can be cash on delivery or cash on order. So in the case of smart phone purchasing too it had a greater impact. Mode of purchase can be varied among different people as the way they look in to it. It can be offline or online depends on their priorities and knowledge. [16] According to a study done in Odisha the factors influencing mode of purchase of smart phones are security and trust, ease of availability, after sales service, price and exchange offers, EMI facilities etc. Recommendations from friends, family members, neighbors has been considered important factor to study. In the current scenario online user reviews are considered more important as it is reliable and more trustful. Also rating organizations provides with all kind of smart phone compare ratings. Customer can get more clarifications regarding their product by the help of such organizations.

The literature review can be summarized to the following factors that influence smart phone identification:

- Age
- Gender
- Income
- Educational level
- Self-image
- Price
- Brand
- Usage
  - ➢ Call, internet, camera, multimedia, reading, gaming, storage
- Attributes
  - ➢ display size, display type, screen resolution, weight, design, colour, operating system, processor type and core, user interface, Ram, internal storage, external storage, primary

International Journal of Recent Engineering Research and Development (IJRERD)
Volume No. 02 – Issue No. 05, ISSN: 2455-8761
www.ijrerd.com, PP. 43-48

camera resolution, secondary camera resolution, flash light, speaker type, dual sim support, VoLTE support, battery capacity, sensors
- Mode of purchase
    - security and trust, ease of availability, after sales service, price and exchange offers, EMI facilities
        1. Offline
        2. Online
- Recommendations and advertisements
    - Recommendations from friends, family, neighbors
    - User reviews and rating organizations
    - Advertisements

## 3. Methodology

This study was conducted to know about the factors that affect people decisions of smart phone purchasing. Primary and secondary data were collected from appropriate sources of data. A structured questionnaire with five point likert scale was used to collect the opinions of respondents. To select the respondents, convenience sampling method was used. A total of 601 respondents were interviewed and their response is used for data analysis by using SPSS.

## 4. Analysis and Findings

A total of 601 responses were collected. The data presented in the below tables indicate that the sample has male domination with 74 per cent of total. Age analysis of respondents indicates that most of the respondents fall in the age group of 16-25 years as it was indicated by 50.2 per cent respondents in the sample. Education analysis of respondents indicates that most of the respondents possess degree and masters. Price preference of respondents indicates that most of the respondents need to have smart phones in range of 5000-15000. Family income analysis of respondents indicates that most of the respondents fall in the group of above 25000 per month. Most of the respondents use Samsung and Lenovo phones presently. Also 75.9 per cent preferred to have an android operating system. Customers preferred to have any mode of purchase but cash on delivery is most preferred.

An exploratory factor analysis is performed on the response in order to reduce number of variables and the following rotation matrix was obtained as shown in table 1 and the components are named logically.

| Rotated Component Matrix | | | | | | |
|---|---|---|---|---|---|---|
| | Component | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| | Technical features | Aesthetics | Usage | Social and Economical | Purchase mode | Brand image |
| operating system | .762 | | | | | |
| ram capacity | .721 | | | | | |
| primary camera | .691 | | | | | |
| secondary camera | .652 | | | | | |
| dual sim | .680 | | | | | |
| internal memory | .710 | | | | | |
| sensors | .653 | | | | | |
| design | | .756 | | | | |
| weight | | .721 | | | | |
| colour | | .681 | | | | |
| display size | | .698 | | | | |
| call usage | | | .831 | | | |
| net usage | | | .810 | | | |
| camera usage | | | .654 | | | |
| data storage | | | .612 | | | |
| other usage | | | .694 | | | |
| influence of price | | | | .781 | | |
| influence family income | | | | .742 | | |
| recommendations | | | | .712 | | |

| | | | | | |
|---|---|---|---|---|---|
| reviews and ratings | | | | .704 | | |
| after sales service | | | | | .691 | |
| ease of availability | | | | | .685 | |
| awareness about attributes | | | | | .601 | |
| advertisements | | | | | | .558 |
| brand loyalty | | | | | | .594 |

Table 1: factor analysis

By using the table above a model is developed using SPSS AMOS. It is a confirmatory technique in order to understand exactness of exploratory factor analysis. The influence of each factor thus can be confirmed to finalize the results. The final measurement model thus obtained is shown below infig1.From the model shown above it is clear that the factors influencing customers are price, operating system, design, display size, call and net usage, ease of availability, reviews and ratings, after sales service etc. These factors show some predominance when compared to other factors. Also it is noted that brand loyalty of customers get weakened.
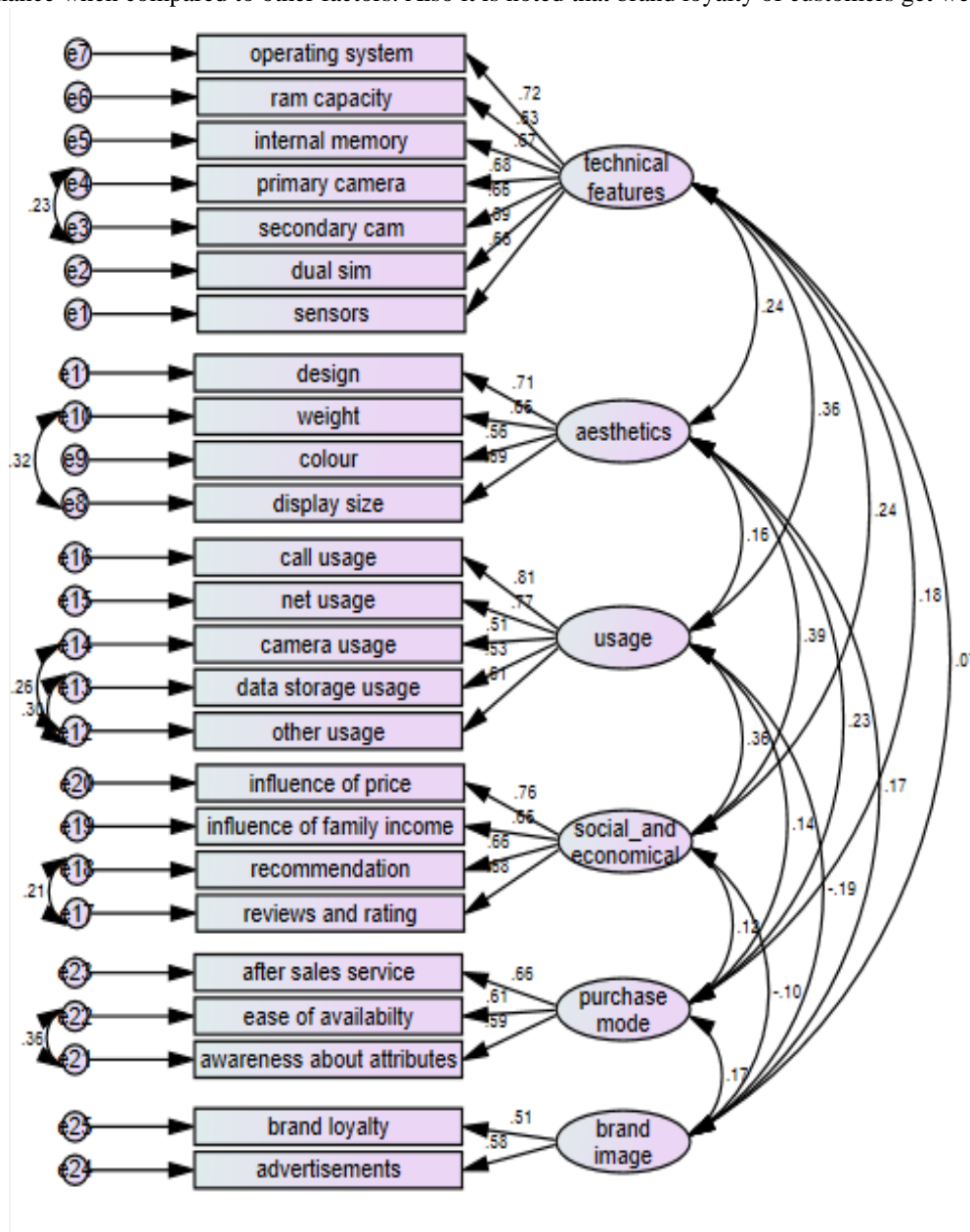


Figure 1.Measurement model

The structural equation model is developed from the measurement model in order to know the most influencing latent variable on customer's perception is shown in fig2. The most important latent variable is social and economic factor followed by usage. Then goes to technical and aesthetic features. Brand image has been found to be least influencing one.
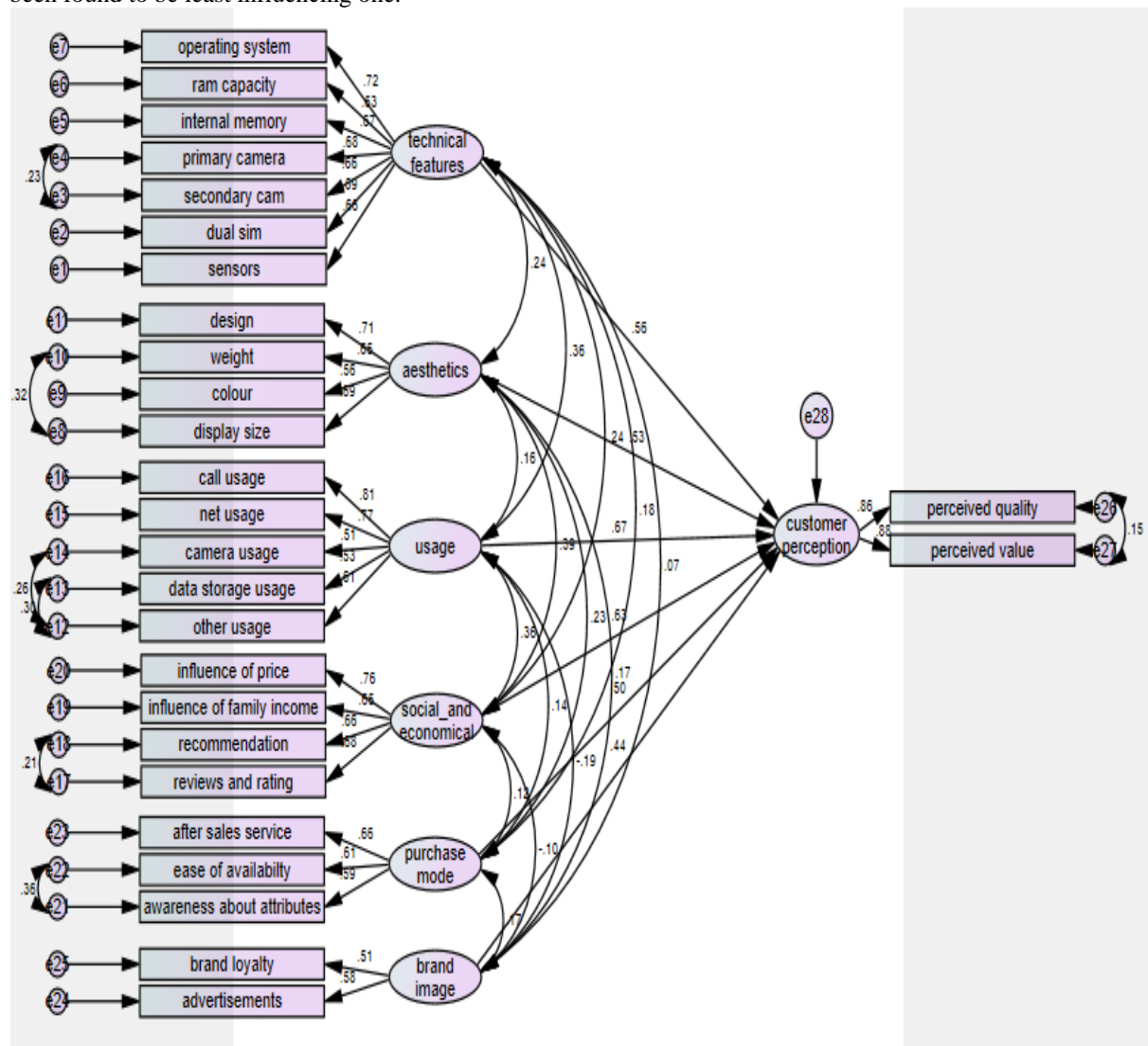


Figure 2.Structural model

## 5.    Conclusion

The objective of the study was to find out the underlying factors those have a role to smart phone identification. It has been seen from the discussion that there are lots of variables customers consider before choosing smart phones. Some of the factors influence customers' decision greatly while others have comparatively low impact on the decision. The study has identified that many factors are deemed as selection criteria of smart phone. Not necessarily all the variables influence a person in the same way and same extent. In case of choosing smart phones, mostly considered factors by customers include price, call and net usage, operating system, ease of availability, reviews and ratings. But other factors are also considered. Also it is noted that brand loyalty of customers get weakened. Social and economic latent variable is found to be most influencing to the customers. This study can provide strategic suggestions in smart phone marketing.

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