MEASURING BRAND EQUITY OF CONSUMER DURABLES THROUGH CUSTOMER BASED BRAND EQUITY MODEL

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Abstract— A high brand equity level is recognized as a key attribute that affects higher consumer preferences and purchase intentions. This research intends to determine the factors to improve actual and perceived quality of the brands studied, to understand how marketing strategy communicate the brand's relevancy to people's needs and to compare the brand equity with competitors.

Customer Based Brand Equity Model (CBBE Model) is an accepted brand building methodology which helps to know what brand equity is, and how it can be made, measured and managed. The CBBE Model emphasise on Brand building by considering the Brand Salience, Performance, Imagery, Judgments, Feelings and Resonance of customers towards the brand or product.

The purpose of this paper is to measure consumer-based brand equity in consumer durables and to identify the strategy drivers associated with levels of brand equity for the selected brands in the market. The increasing need for a range of consumer durable goods in India has invoked high competition among different consumer durable brands. Consumer durable goods include White Goods, Brown Goods and Consumer Electronics. The research is oriented towards four Indian and international mobile brands. The brands selected are Nokia, Samsung, Micromax and Karbonn. The CBBE model for the four brands are drafted and these models are used to construct a Reverse Model which gives the status of the five brands of mobiles based on the same information used for building the CBBE models. This study has brought out the various factors that affect brand equity of this class of Consumer Durables and emphasize on development of effective marketing strategies.

Keywords— Brand Building, Customer Based Brand Equity Model, Brand Equity, Reverse CBBE Model, Consumer Durables.

I. INTRODUCTION

Building a strong brand is the baseline for companies as it provides lot of benefits like increased customer loyalty, acceptability of larger margins by the consumers including the price changes, marketing communication effectiveness and better opportunities for brand extension. (Kotler, 2002) The process of Brand Building deals with learning about the factors which makes a brand strong and also the process of building a strong brand. CBBE is a model that helps to manage brand building efforts of companies (Keller & Lane, 2012)

The increasing presence of a range of consumer durable goods in India has invoked a high competition among the different consumer durable brands. Consumer durable goods include White Goods, Brown Goods and Consumer Electronics. The research is oriented towards both the Indian and international brands. The study has attempted to bring out the various factors that affect brand equity of mobile phone brands and emphasize on development of effective marketing strategies. As per a study, the major four mobile phone brands in India are identified as Samsung, Micromax, Nokia and Karbonn. (Anwer, 2014). This research measures the brand equity of these selected brands with respect to the CBBE Model.

II. OBJECTIVES
Major objectives of this study are as given below:

- To measure brand equity of mobile phones using CBBE Model
- To identify the core characteristics of each brand which helps in brand building
- To plot the brand building characteristics of each brand on the CBBE Model
- To construct a Reverse Model that provides a relative status of the four brands of mobiles studied

II. LITERATURE REVIEW

Customer Based Brand Equity (CBBE) deals with brand knowledge of the customers and the response to the brand's marketing strategies. A customer can have negative and positive perceptions of CBBE towards a brand. Companies can build the brand equity for their products and services by making them memorable, easily recognizable and superior in quality and reliability. Consumers with a favourable CBBE will be willing to pay more for the brand than for the price of the generic product. (Sekhar, 2012)

CBBE Model enables organisations to measure brand equity by identifying the brand building factors. (Kuhn, 2008) There are four steps of Brand Building which are related to one another wherein each step is contingent upon achieving the previous step. Each of these phases has a definite objective which targets both the existing as well as potential customers.

The four steps of CBBE can be represented as follows:

1) Who are you? (Brand Identity)
2) What are you? (Brand Meaning)
3) What about you? What do I think or feel about you? (Brand Responses)
4) What about you and me? What kind of association and how much of a connection would I like to have with you? (Brand Relationships (Keller K. L., 1993)

The first step deals with whether the customers are able to identify the brand and also about the kind of association customers do feel with respect to the customer's need or a specific product class. This step in the CBBE model refers to the identity indicating the deep and broad brand awareness that customers have towards the brand. The brand identity is achieved through brand salience which understands the level of category identification needs satisfied for the customers. The second step is to define the meaning or to know what the brand is for the customers. Here the strong, favourable and unique brand associations that customers have towards the brand will provide the 'Meaning' for the brand.

Establishing a brand image in the minds of customers is the main intension of brand meaning. The third step intends to enrich the Brand responses by linking the brand with tangible and intangible characteristics. The third step is 'Responses' which indicates the positive and accessible responses that brands have with the customers. Brand responses refer to how the customers respond to the brand and to the various marketing activities that the brand carries out. The fourth and final step of the model is brand relationships and focuses upon the intense relationship and level of identification that the customer have with the brand. The fourth step is to set the strong, active and loyal relationship with the customers. (Keller K. L., 1993)

The four steps of brand building can be structured by establishing six 'brand building blocks' with the customers. It includes Brand Salience, Brand Imagery, Brand Performance, Brand Judgements, Brand Feelings and Brand Resonance which can be represented as a pyramid.
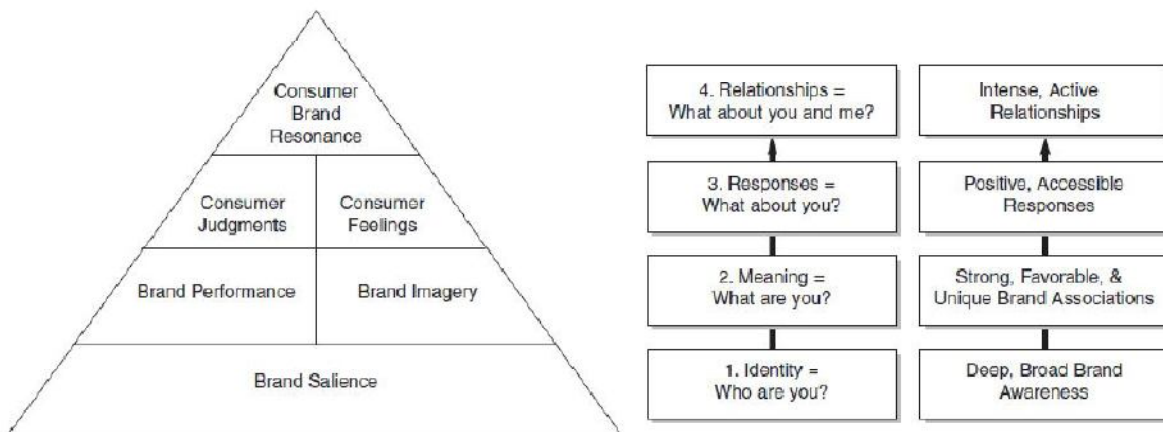
Figure 1: Representation of Brand Building Blocks (Keller K. L., 1993)

Each of the building blocks can be represented in terms of the characteristics of each block as given in Figure 2.
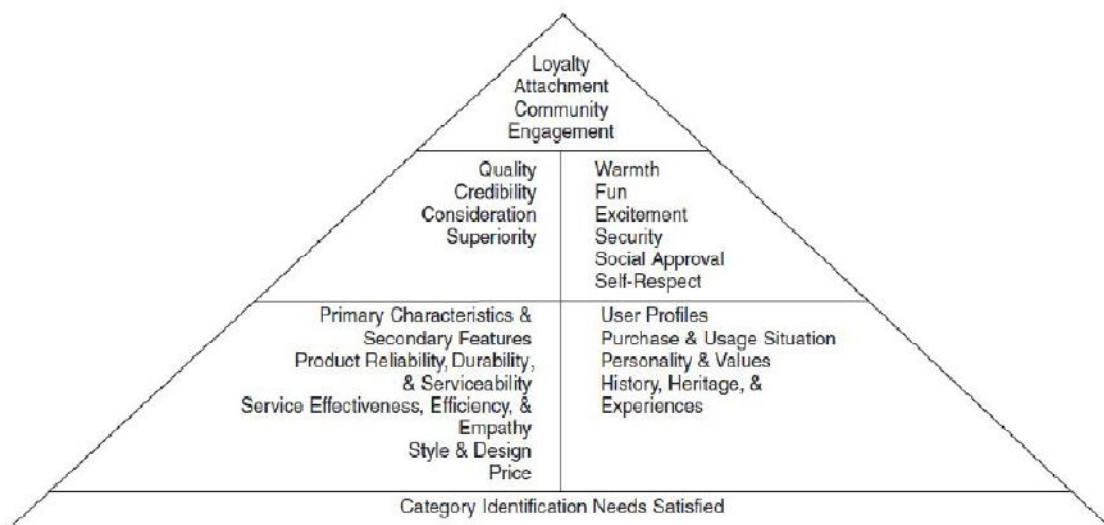
Figure 2: Characteristics of brand building blocks (Keller K. L., 1993)

Brand salience is related to awareness of the brand which includes the extent to which brand is recalled and recognised and also the level of persistence that the brand has. Brand awareness is also closely related to the liking of the brand parameters including the name, logo, symbol etc. and the associations that customers have towards it. Brands should provide clarity on the various products and services that it offers so that customers can identify which of their needs can be satisfied by the range of products and services of the brand.

Brand performance includes the primary characteristics and the supplementary features of the brand. It also includes product reliability, durability, & serviceability provided by the brand's products and services. The style and design aspects of the products and services also are factors which influence the brand performance. The value to price that the brand gives to the customer also forms a lead influence in brand performance. Brand Imagery includes parameters like the user profiles purchase and usage situations, personality and values, History, Heritage and experiences etc. (Aaker, 1991)

Brand imagery deals with the intangible of the product or service, inclusive of how the brand attempts to meet customer's psychological or social needs. Brand imagery is how people think about a brand (perceptions) rather than what they think the brand actually does. Thus, imagery refers to the intangible aspects of the brand rather than the tangible factors. (Keller K. L., 1993)

Brand judgment considers the customer's personal opinions and evaluations of the brand. It involves how customers group the performance and imagery associations about the brand to form opinions. The main elements in Brand judgement are: 1) Brand quality which relates to perceptions of value and satisfaction that customers have towards the brand. 2) Brand credibility which includes the factors like perceived expertise, trustworthiness, and likability that customers possess with respect to a brand. (Keller K. L., 1993)

Brand Feelings are the customers emotional responses towards the brand. It denotes the extent to which a brand is considered as a status symbol for the users. The 6 brand building feelings are warmth, fun, excitement, security, social approval and self respect.

Brand resonance considers the relationship that the customers have with the brand and to the extent to which customers feel a core attachment to the brand. Brand resonance is characterized in terms of the intensity or the depth of the psychological bond that customers have with the brand. The intense brand resonance can be recognised by the Behavioural loyalty, attitudinal attachment, Sense of community and Active engagement between the brand and the customers.

From the parameters of CBBE Model the following factors are identified with respect to each building block. (Source)

1. Salience
   - Recognition of brands/ product category
   - Likeliness of product usage under given situations
2. Performance
   - how well does this brand provide the basic functions of the product
   - effectiveness of brand's mobile phone servicing/ repairing
   - How reliable is this brand
   - How do you rate the brand considering the factor of value to money
   - To what extend does this brand have special features
   - To what extend do you like the design aspects of the brand (look, feel)
3. Imagery
   - How much do you feel that the brand is successful
   - To what extend do people you admire, use this brand
4. Judgements
   - What is your assessment regarding the product quality of the brand (quality characteristic in judgements)
   - To what extend do the makers of this brand understand the user's needs(credibility characteristic in judgements)
   - How effective do you feel the brand is to be recommended to others(consideration characteristic in judgements)
   - How unique is this brand(superiority characteristic in judgements)
5. Feelings
   - To what extend do you feel that this brand denotes a status symbol for the users
   - To what level does this brand gives a feeling of fun and excitement
   - How much does this brand gives a feeling of social approval
6. Resonance
   - Is this a brand that you would prefer to buy (loyalty characteristic of resonance)
   - To what extend do you feel that this brand gives a value more than the product (attachment characteristic of resonance)
   - To what extend does this brand involve customers for their reviews and opinions (community characteristic of resonance)
   - To what extend do you like to talk about this brand with others(engagement characteristic of resonance)

IV. RESEARCH METHODOLOGY

The research is intended to measure the brand equity of mobile phone brands through customer based brand equity model. The present study takes the form of descriptive type of research. Primary data was

collected through a questionnaire survey conducted among post-graduate students and employees of IT firms in Thiruvananthapuram. Questionnaires were sent to 173 post-graduate students in College of Engineering Trivandrum and to 172 members of a professional group of Technopark employees. The secondary data is collected through past research reports, journals, articles etc.

The students and the employees of IT firms were chosen for the study to get a homogeneous group so that the inferences drawn reflect the brand characteristics as perceived by the young users of the mobile gadgets.
57 students and 54 IT employees responded in the survey. The number of accepted responses (which is taken as the sample size) were 44 from students and 42 from IT employees.

The respondents represented different age groups, and were using mobile phones for years ranging from months to more than 10 years. Ninety three percent of the overall sample is of the age group of 21 to 35 Years. Sixty eight percent of the respondents are using mobile phones for less than 10 Years and 30% of the respondents are using it for more than 10 years. The brands selected for study are Samsung, Micromax, Nokia, Karbonn as these are the major four mobile phone brands in India with largest market share. (Anwer, 2014)
The Brand Equity Measurement is carried out in this research by two methods:

4.1 Measuring Brand Equity of individual brands by CBBE Model
The brand equity of each of the selected brand was measured by evaluating the response given for the different characteristics. The prominent characteristic that contributes to the building of brand equity for a brand was plotted on the Brand Building Block. This analysis enables to identify the core characteristics which supports in the building of brand equity for each brand.

4.2 Ranking the characteristics of Brand Equity for the brands and constructing the Reverse CBBE Model
To measure the brand equity of the selected brands in comparison with one another, the Reverse CBBE Model is developed. In this model, according to the evaluation of responses regarding each characteristic, the selected brands are ranked with respect to the prominence in each Brand Building Block of CBBE Model. By this method, other than just identifying the characteristics that contributes to building the brand equity of individual brand, the prominence of a brand in each brand building block is identified. As a result, the characteristics to be developed are identified with more clarity.

V. DATA ANALYSIS AND INTERPRETATION

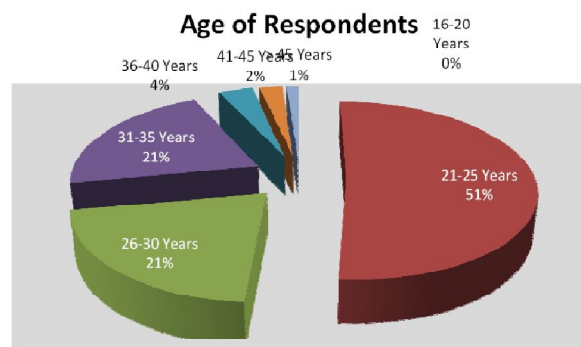### 5.1 Profile of Respondents
5.1.1 Age of Respondents

Figure 3: Distribution of respondents according to age

Majority of respondents were in the age group between 21 to 35 years of age and hence reflect the brand characteristics with respect to the young consumers.
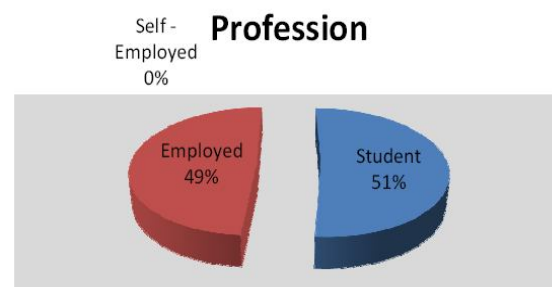
5.1.2 Profession of Respondents

Figure 4: Distribution of respondents according to occupation

The number of student and employee respondents is 44 and 42 respectively.

5.1.3 Mobile phone usage history of Respondents
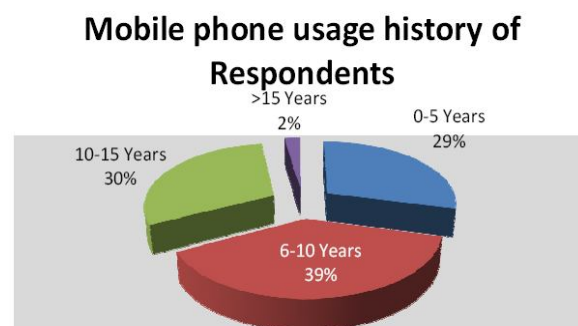

Figure 5: Mobile phone usage history of respondents

Sixty one respondents have used mobile phones for more than 5 years.

5.1.4 Mobile phone brand currently used by Respondents

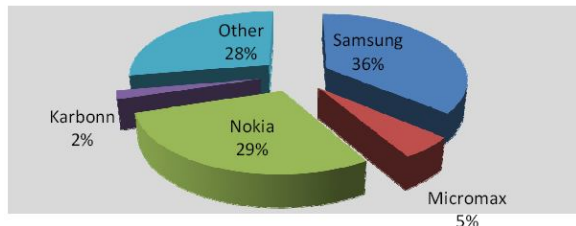## Mobile phone brand currently used by Respondents

Figure 6: Mobile phone brands currently used by the respondents

Thirty nine percent of the respondents use Samsung mobile phones, 31% uses Nokia mobile phones and 30% of users are other mobile phone brands. The other mobile phone brands include Motorola, iPhone, Sony, Blackberry etc. The brand currently used will add on to the Brand salience characteristic and Samsung has the highest response to it.

5.2 Customer Based Brand Equity model
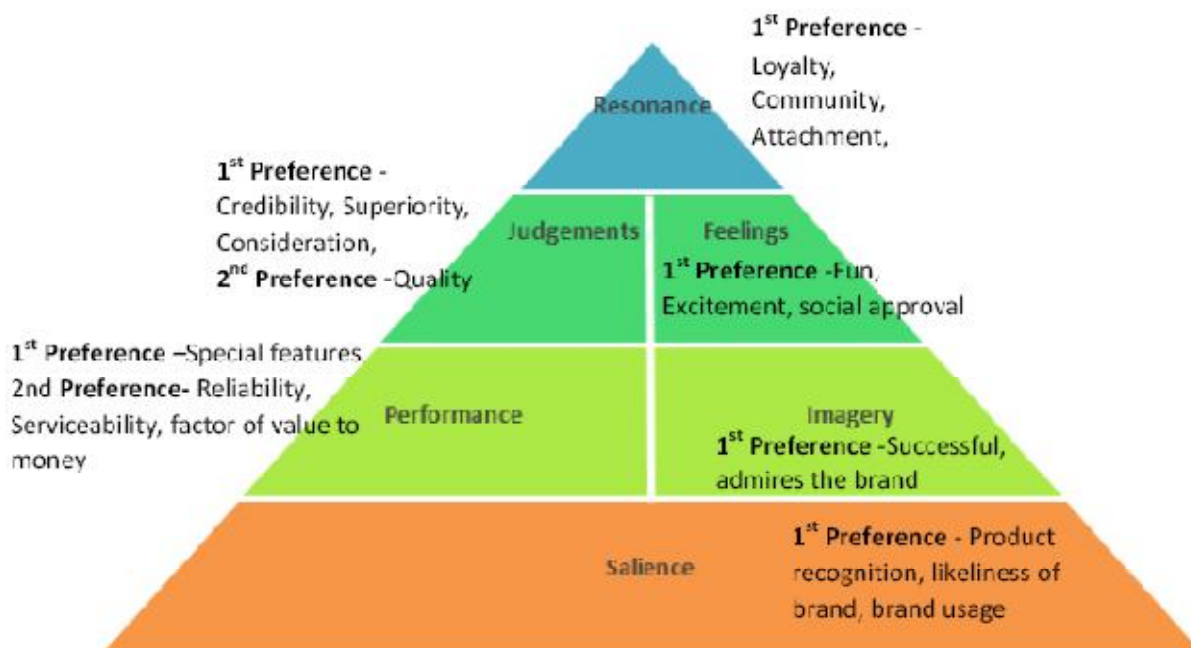5.2.1 CBBE model for Samsung

Figure 7: CBBE model for Samsung mobile

The respondents were in most favour of Samsung brand with respect to the identified characteristics of customer based brand equity model. The likeliness of respondents for Samsung brand is highest where 71 % of the respondents have rated Samsung as 4 or 5 (where 1 is the lowest and 5 is the highest rating). Also 39% of the respondents are using Samsung mobile phones. So, this gives Samsung a high Brand Salience.

In Brand Performance, Samsung is rated high with respect to other brands considering the special features the brand offers which include the user friendly mobile applications that it gives. But, considering the other factors of Brand Performance like reliability of the brand, serviceability of the brand, factor of value to money and the design aspects of the brand, Samsung is preferred second and Nokia is rated with the highest preferences. It could be inferred that Samsung would have to encounter these issues in the Brand Performance.

In Brand Imagery, 76% of respondents feel that the brand is successful. Also the extent to which, the admirers of the brand who also use the Samsung brand, is as high as 64%. Hence, Brand Imagery is also an established characteristic for Samsung brand.

Considering Brand judgements, the uniqueness of the brand is rated high where 64% of the respondents feel that the brand is unique. The extent to which the respondents feel that the makers of the brand understand the user's needs is 77% and 69% of the respondents would recommend this brand to others. But regarding the product quality of the brand, the first preference is for Nokia and the second preference is for Samsung. It could be inferred that Brand Judgement is very strong for Samsung in terms of credibility, superiority and consideration, but is lacking in quality characteristics.

In brand feelings, the extent to which respondents feel that the brand denotes a status symbol is rated high by 74% of the respondents. Also, the feeling of fun and excitement that the brand gives along with the feeling of social approval is high at 70%. Hence, brand feelings are also strong for Samsung.

Considering brand resonance, 60% of the respondents would consider Samsung for their next purchase of Mobile phones. The extent to which the brand gives value more than the product is rated high by 63% of the respondents. 64% of the respondents feel that the brand involves customers for their reviews and opinions (which support the community characteristic of resonance). Also, 65% of the respondents like to talk about this brand with others. So, the characteristics of brand resonance including loyalty, community, engagement and attachment are also an added advantage for Samsung.

5.2.2 CBBE for Micromax
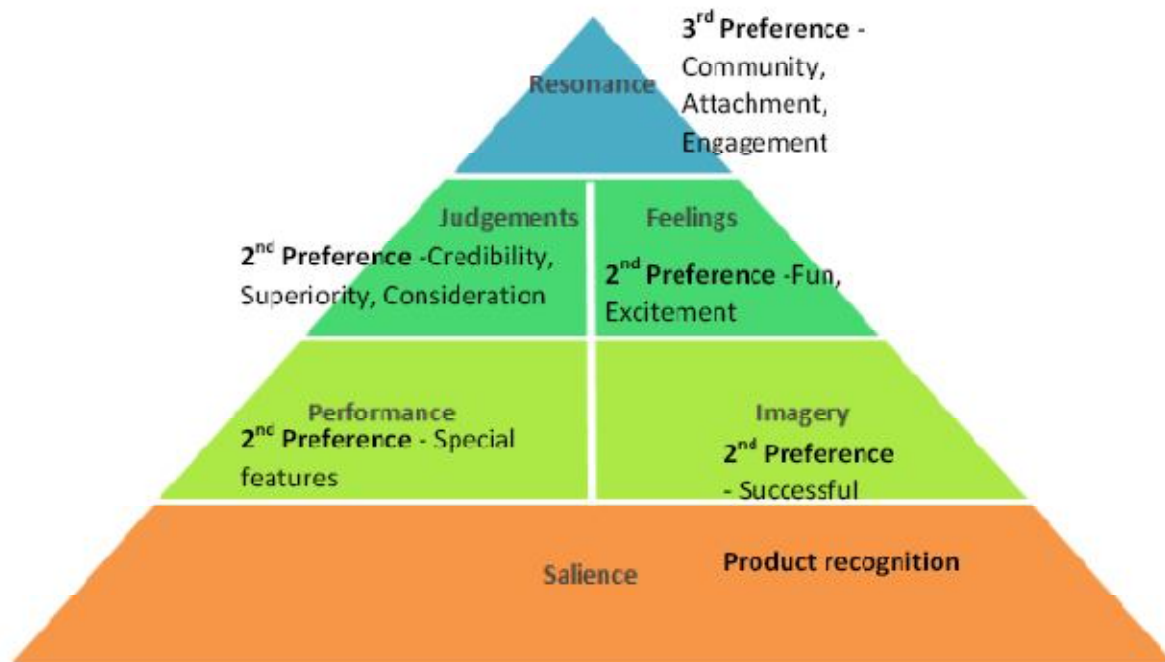
Figure 8**: CBBE model for Micromax**

The respondents were in favour of some of the brand equity parameters for Micromax brand considering the identified characteristics of customer based brand equity model. In most of the criterion of brand equity evaluation, Micromax was preferred at the second place, next to Samsung. Considering the likeliness of respondents for Micromax brand, 31 % of the respondents have rated Micromax as 4 and 5 rating (where 1 is the lowest and 5 is the highest rating). But only 16% of the respondents are using Micromax mobile phones. So, even though there is product recognition, the likeness and brand usage rate is quite low and so this gives Micromax a moderate Brand Salience.

In Brand Performance, Micromax is rated moderately with respect to other brands considering the special features the brand offers which include the user friendly mobile applications that it gives. Considering the other factors of Brand Performance like reliability of the brand serviceability of the brand factor of value to money and the design aspects of the brand, Micromax is rated as the third preference and Nokia is rated with the first preferences. So, Micromax will have to encounter these issues in the Brand Performance.

In Brand Imagery, 56% of respondents feels that the brand is successful. But the extent to which, the people who respondents admire, uses the Micromax brand is at a lower range of 17% preferring it. So, Brand Imagery is only a moderate characteristic for Micromax brand.

Considering Brand judgements, the uniqueness of the brand is rated fair where 27% of the respondents feel that the brand is unique. The extent to which the respondents feels that the makers of the brand understand the user's needs is 34% and 24% of the respondents would recommend this brand to others. Regarding the product quality of the brand, the first preference is for Nokia ns Micromax is rated with a third preference. So, Brand Judgements is an area to be for Micromax in credibility, superiority and consideration, but is lacking in quality characteristics.

In brand feelings, the extent to which respondents feel that the brand denotes a status symbol is rated high by 30% of the respondents. Also, the feeling of fun and excitement that the brand gives is rated high by 37% of the respondents, but the feeling of social approval is rated high only by 17% of the respondents. So, brand feelings have to be built up strong basis for Micromax.

Considering brand resonance, 15% of the respondents would consider Micromax for their next purchase of Mobile phones. The extent to which the brand gives a value more than the product is rated high by 19% of

the respondents and 57% rated it as moderate. 37% of the respondents feel that the brand involves customers for their reviews and opinions (which support the community characteristic of resonance). Also, 43% of the respondents like to talk about this brand with others. So, the characteristics of brand resonance including loyalty, community, engagement and attachment are just at a moderate level for Micromax and for loyalty, it's at the third preference after Samsung and Nokia. So, the major area to be looked upon is loyalty characteristic in brand resonance.

5.2.3 CBBE for Nokia
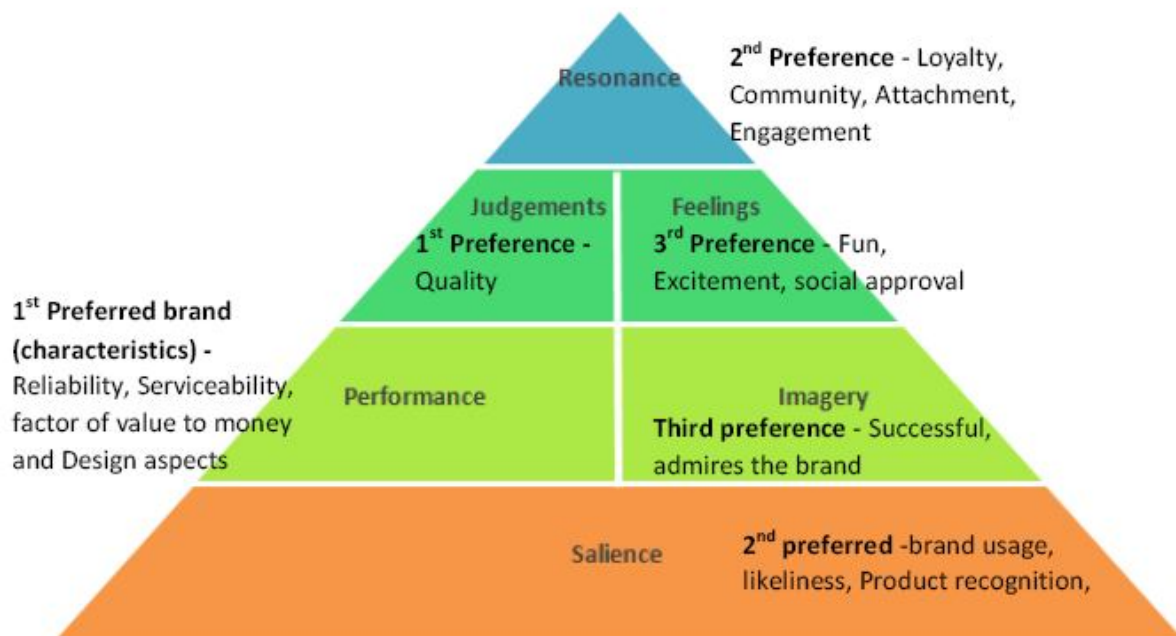
Figure 9: CBBE model for Nokia

The respondents were in favour of the brand equity parameters for Nokia brand in the few of the building blocks like for Performance and resonance. In some of the criterion of brand equity evaluation, Nokia was preferred at the second place, next to Samsung. Considering the likeliness of respondents for Nokia brand, 50 % of the respondents have rated Nokia as 4 and 5 rating (where 1 is the lowest and 5 is the highest rating). 31% of the respondents are using Nokia mobile phones. So, there is quite a high rating for product recognition and brand usage rate, but the likeness of the brand is decreased over the time. So, it will have a moderate level of Brand Salience.

In Brand Performance, Nokia is rated the best with respect to other brands considering the factors of Brand Performance like reliability of the brand, serviceability of the brand, factor of value to money and the design aspects of the brand. But, in brand performance special features the brand offers which include the user friendly mobile applications that it gives, Nokia is only at the third position after Samsung and Micromax.

In Brand Imagery, 30% of respondents feel that the brand is successful which is at a considerably lower level. The extent to which the people who the respondent's admire, uses the Nokia brand is also at a lower range of 31% preferring it. So, Brand Imagery is at a lower side for Nokia brand.

Considering Brand judgements, the product quality of the brand, the first preference is for Nokia. But considering the uniqueness of the brand is rated fair where 30% of the respondents feel that the brand is unique. The extent to which the respondents feel that the makers of the brand understand the user's needs is 31% and 34% of the respondents would recommend this brand to others. So, Brand Judgements is an area to be developed for Nokia in credibility, superiority and consideration, and is very highly rated in quality characteristics.

In brand feelings, the extent to which respondents feel that the brand denotes a status symbol is rated high by 30% of the respondents. Also, the feeling of fun and excitement that the brand gives is rated high by 40% of the respondents, and the feeling of social approval is rated high only by 28% of the respondents. So, brand feelings have to be built up strong basis for Nokia.

Considering brand resonance, 44% of the respondents would consider Nokia for their next purchase of Mobile phones. The extent to which the brand gives a value more than the product is rated high by 26% of the respondents and 57% rated it as moderate. 27% of the respondents feel that the brand involves customers for their reviews and opinions (which support the community characteristic of resonance). Also, 33% of the respondents like to talk about this

brand with others. So, the characteristics of brand resonance including loyalty, community, engagement and attachment are just at a moderate level for Nokia and it comes as the second preference after Samsung. So, for Nokia the areas that have to be looked upon is

to provide features that the customers prefers, and to take more of a response from customers while launching the new products.

5.2.4 CBBE for Karbonn
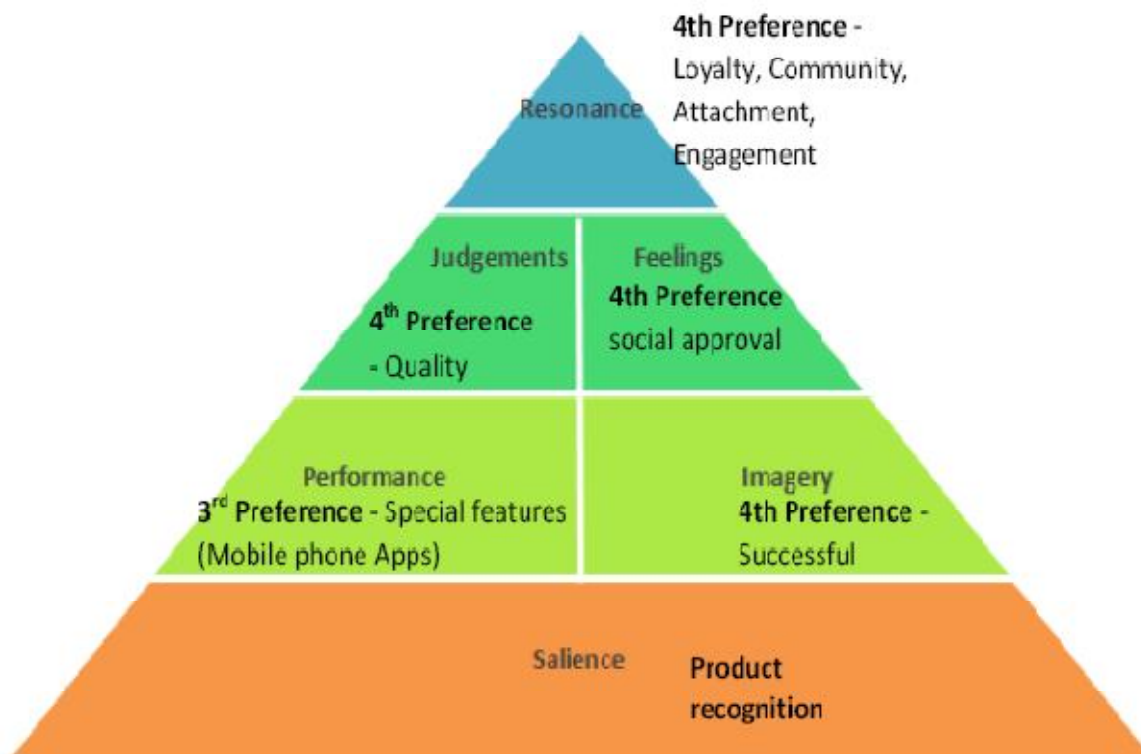
Figure 10: CBBE model for Karbonn

Karbonn brand, even though listed as the 4th major shareholder of Indian Market (Anwer, 2014), in the research it has a very low preference given. It's preferred as the 4th preferred brand for most of all the building blocks. Only 5-10% of respondents have rated Karbonn brand as high for the various parameters. Its rated moderate for 'value for Money' and 'special feature' that is provided. So, building brand equity for Karbonn is very critical.

5.3 Reverse CBBE Model

A reverse CBBE model is developed in the research considering the various brands and their brand equity characteristics.

The response regarding the brand equity parameters were taken and on this basis the top ranked brands of each criterion are plotted in the building blocks of CBBE model. So, instead of the parameters plotted for each brand in the actual CBBE model, here the various brands are plotted in the brand building blocks wherein the top brands in each building block characteristic can be found out.

It's a reverse CBBE Model as in the CBBE Model, from a selected brand, the parameters are evaluated, whereas in reverse CBBE Model, parameters are evaluated at first and then the brands performing best in each criterion are identified.
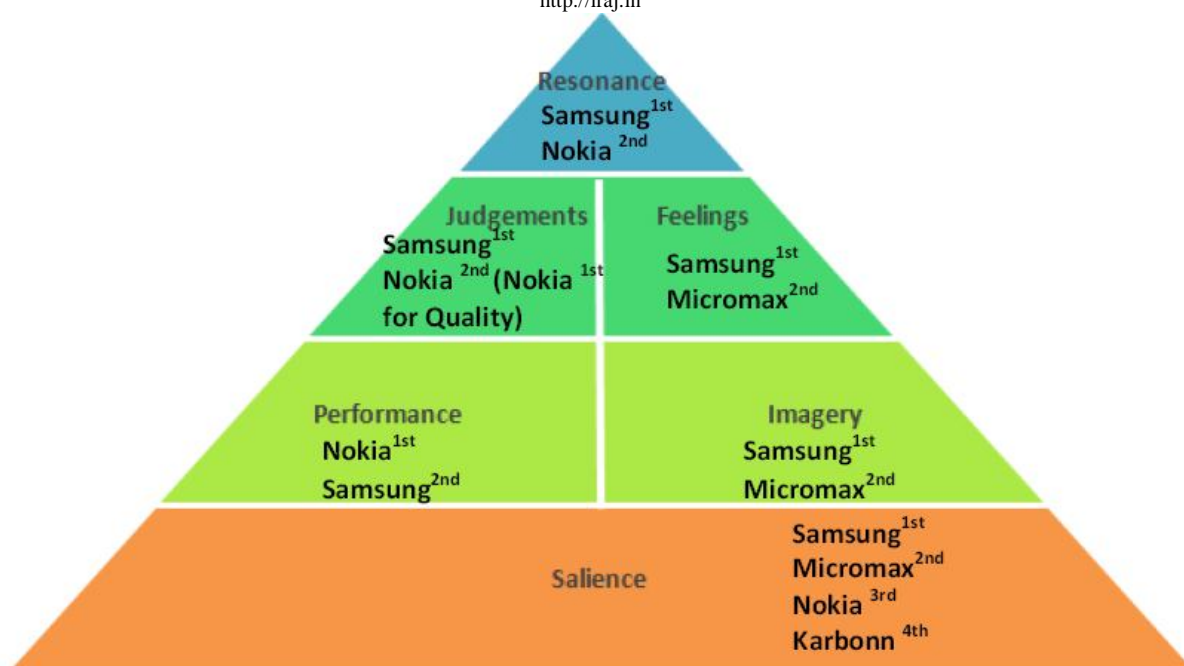
Figure 11: Reverse CBBE model for the selected mobile phone brands

The four brands selected in the study are Samsung, Micromax, Nokia and Karbonn and these brands are plotted in each of the brand building block according to the ranking obtained. The aggregate rating of the all parameters with respect to the brand is calculated at first and ranking is done accordingly.

From the above reverse CBBE Model, the "brand salience" block has Samsung ranked first and Micromax ranked second based on parameters like current usage of the brand, recognition of brands/ product category and likeliness of product usage under given situations. (Keller K. L., 1993). Nokia and Karbonn are ranked 3rd and 4th respectively.

In brand performance, Nokia is in the first position which has dominance in reliability, serviceability, value for money and design aspects. Samsung has an overall 2nd ranking, but it's rated first considering the special features (mobile phone applications) that it provides.

In brand Imagery, Samsung is rated first and Micromax in the second position based on the parameters like whether brand is successful and the extent to which people respondents admire, use the brand.

Considering Brand Judgements, according to product quality of the brand Nokia is ranked 1st, but in the overall ranking considering the parameters like credibility, consideration and uniqueness (superiority), Samsung is ranked 1st and Nokia is 2nd.

For Brand Feelings, Samsung is rated 1st and Micromax second based on the parameters like whether brand denotes a status symbol for the users, the feeling of fun and excitement that the brand gives and the feeling of social approval.

In Brand Resonance, Samsung is rated 1st and Nokia is rated 2nd with respect to the characteristics like loyalty, attachment, community and engagement.

Karbonn brand is in the 4th position in all the blocks, and shows the need for an improved brand equity if it has to succeed in the market. Samsung has maintained the 1st position in most of the building blocks, but is facing a tight completion from Nokia and Micromax. Nokia has dominance in the brand performance and quality characteristics. So, if Nokia can improve on Salience, feelings and Imagery, it can evolve as the best brand.

CONCLUSION

The research has identified the dimensions in measuring the brand equity of selected mobile phones brands using CBBE Model. The core characteristics which helps in building the brand equity of each individual brand were identified and were plotted corresponding to the brand building block of the CBBE Model. The research also constructed a Reverse CBBE Model that provides a relative status of the four brands of mobiles studied. The conceptual framework developed is advantageous for examining the level of contribution of brand association, brand awareness, perceived value and brand loyalty to brand equity among other competing brands in various sectors.

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