Mapping customer delight by discriminating augmented communication technology for sustainable advantage

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Abstract: The paper proposes to map customer delight experience through the firm’s product augmentation efforts. The study act as a juncture of conceptual insight, empirical analysis, and perceptual visualisation, classifying low (Chill), moderate (Smiling) and high (Feat) delight affect by using the product augmentation model. The present research aims to create a framework to assess smartphone customers’ delight by extending Kano (1984) and Fuller and Matzler (2008) proposal through product augmentation. The first section of the paper deals with the development of the conceptual model containing ten predictor variables of product augmentation along with the categories of customer delight experiences. The second section validates the model by using discriminant analysis. The last section substantiates the impact of predictor variables as vector quantity for profiling of customer delight categories by using a perceptual mapping technique. The proposal demonstrates and endorses the consistency in the delineating nature of product augmentation by identifying each predictor variable’s discriminating power in the respective category. The salience of the study affirms the conceptual and practical implications through behavioural segmentation based on augmentation efforts for technology enhancement.

Keywords: Product Augmentation, Delight, Discriminant Analysis, Perceptual Mapping, Mobile Technology

1. Introduction
The Asia Pacific region is an emerging market in the world of mobile telephony; countries like India and China are the vast market for global corporations [1]. Innovation through product augmentation enhances customer satisfaction and advocates it to other stakeholders [2]. Product augmentation is recognised as a powerful concept for product strategies elevating customer satisfaction and delight [2, 3]. Product augmentation is the aggregation process of enhancing the value of the product or service enabling the firms to offer a substantially potential product in a competitive market [4, 5]. During last two decades, a remarkable convergence in two different technologies i.e. remote application server like a virtual private network to cloud computing and personal computing to smartphone via laptop have enabled researchers and product developers to think and innovate product regularly. The regular introduction of cellular technology in generations such as 2G to 5G in India provides a junction to these two aforesaid converging technologies. Developing smartphones with innovative features has paved the way for technology adaptation. It is crucial mentioning here that the business strategists are looking for some or other way to route their product/service buying/booking through mobile phones. In this situation people are carrying the whole market in their pocket in the form of mobile. Some researchers have concentrated on products levels, market segmentation based on product attributes and customer emotional affects [6, 7]. Mourtzis et al. [8] provided an idea to identify the route and method for product augmentation through customer participation in product design through development of mobile applications like geo-location to offer discounts and...
coupons latter. The combination of augmentation efforts and delightful acceptance of such efforts caters to the elevated market share [9, 10, 11]. However, most of the researches have focused on attributes dimension and the less has been explored on consumers’ behavioural dimension. Hence, conceptualisation of the idea is thoughtful insight to the context to explore further.

1.1. Background: customer delight and product dimensions
Understanding the product in levels transformed the idea of the firm’s offering to product concept [12]. The multi-dimensional facet of the entrepreneurial firms, their customer orientation, and prevailing market competition lengthen product life cycle [3]. In 1967, Herzberg two-factor theory recognised the idea of understanding the motivation behind individual pleasure [13]. Any individual motivation under any situation is based on attributes classified as hygiene factors that cause dissatisfaction (necessity-based) and motivators or satisfiers create satisfaction and motivation [14]. Further, Kano [15] suggested a taxonomy for enriching the products or services by placing various attributes in specific categories of basic, delight and performance factors for customer delight [16].

The three-factor theory of Fuller and Matzler [17] suggested a new dimension by suggesting three factors for customer delight and product augmentation. The first-factor necessity (dissatisfaction generator) refers to the minimal or elementary part of the overall product, where the excess of it will not lead to satisfaction but the unavailability of such attributes will definitely dissatisfy [14]. The next factor enthusiasm (satisfaction generators), refers to the attributes that create and enhance satisfaction but the absence will not dissatisfy a customer. Lastly, performance factors (hybrids) have a linear or symmetric relation with satisfaction including attributes leading to high affect level like delight when attributes deliver strong performance and generate dissatisfaction, on poor performance delivery [16, 17]. Product augmentation is the benefit enriching process for enhancing the features in the basic product [18]. The significant contributions of Levitt [12], Kano [15] and Fuller and Matzler [17] have defined the product and service in-depth for providing maximum value to the customers. The present study focuses to bridge the gap among customer motivation [14] based on situation attribute, individual emotion study of Russell [13], product augmentation efforts made by Levitt [12], Kano [15] and Fuller and Matzler [17] through the development of customer delight model for understanding consumer behaviour. For the dissemination of deep information, the present study extends the previous studies by assuming customer delight in ordinal form. It gives an outstanding idea of classifying the product and service attributes for generating the maximum satisfaction and positive emotional affect [13, 14] such as customer delight in categories of chill, smile, and feat [3]. For addressing such issues, the discriminant analysis is a powerful statistical technique to classify the variables in different categories [19, 20]. In order to explore the aforesaid issues, discriminant analysis is applied by conducting a survey of smartphone users, followed by perceptual mapping to affirm the classification of delight categories due to the product augmentation efforts. Therefore, the present research intends to propose a model for measuring the variety of customer delight responses arising out of an individual or a combination of different types of augmentation efforts in the highly preferred technology like smartphone. The structure of the paper consists of (i) review of related studies (ii) methodology (iii) results and discussion (iv) managerial implication and future scope of study, followed by (v) conclusions and limitation.

2. Review of related studies
The customer explores an extra in product performance due to affective and cognitive-behavioural differences [12]. Levitt [12] proposed the different levels of product at primary level, the basic product contains core benefits, elementary or substantive thing that firm produces as required by consumers. The secondary level is the expected product or anticipated (or actual) product fulfilling the minimal conditions of customer purchase. The next level is the augmented product, which is an add-on or unprompted extension
of benefits to the anticipated product. Lastly, the potential product represents everything that attracts and sustains customers. Competition formulates a mature market where firms and buyers are relatively experienced. Thus, augmented product handsomely performs in such mature markets [12]. Product augmentation is potent in satisfying and delighting customers by meeting and exceeding customers' expectations, respectively. The augmented product concept is meant for building and sustaining customer relationships effectively.

The ultimate product level is termed as a potential product that includes all efforts till augmentation. A potential product is competent of a snare, upholds loyalty and delight people that eventually becomes a prospective buy to customers frequently. Augmentation rejuvenates the firms offering as a timeline makes it old, traditional and obsolete due to the change in technology and customer expectations [21]. Product augmentation adds more benefits such as warranty, user manual, and packaging [21]. An astute prediction of attractive requirements of customers is fulfilled by the product augmentation efforts for creating customer delight [15, 21]. Differentiation strategy helps in understanding the dynamics of customer latent desire. For such a dynamic environment, augmentation becomes a tool to create customers' happiness and delight [22]. The continuous network technology augmentation in mobile telephony like 2G, 3G, 4G, 5G etc. attract customers and create positive emotional effect like satisfaction/delight due to high speed internet facility [23]. The customer perceptions about brand and brand equity are inherent in a market by augmenting efforts. The competing firms create little tangible and intangible differentiation in their core and basic products. These firms by the product augmentation can acquire an increased market share [24]. The augmentation services like reliable network delivery, prompt attend to complaints, customer care/technical advice and discount structure are significant in industrial goods and durable products such as cell phones and automobiles [25, 26]. Attributes such as the technical support, willingness of business partner and their ability to respond in contingencies, training of staff and minimising the frequency of late deliveries help in handling complaints [24]. The measures taken for enhanced distribution performance and product excellence are hidden criteria for a firm’s stability and also an integral part of building a powerful augmented product [24]. The product augmentation through reputation, customer experience, staff/customer interaction, effective communication and distribution strength helps to create a positive emotional response like delight [27]. The categorisation of these attributes helps in providing the enriched product, create loyal customers and advocates for the firm. In the successive discussion, the various attributes of product and services are discussed for defining product augmentation and its effect on customer delight as below:

Warranty services are the part of a total product or optional (in extended) obligating manufacturer to render service under any risk-averse contingency like a defect or failure of the product to the customer for a certain specific period of time [28, 29, 30]. There are long term warranty policies, extended warranty, life-time warranty and service contract provision; acting as assurance tool for the customer creating behavioural and cognitive-affective feelings like delight [29, 31, 32]. Repair services, an augmentation tool is different from warranty; can be on contract, free for a certain time period or paid facilitates effective brand building through favourable word of mouth [32]. Any breach in repair services can affect the customer at psychological and emotional level and become difficult in the future to compensate [33]. A sound repair services creates customer satisfaction, delight and loyalty in durable goods [34]. Accessories are powerful physical product augmentation; creating an integral part of product offerings impinge in a differential manner on the customers for an affective attitude. Accessories are support or additional or backup equipment for any machine offered with the product like charger for battery with smartphone and power window or stereos with the car [35].

The packaging is the key attribute, external to the physical product that offers the company a means of achieving competitive advantage through differentiation [12, 36]. Consumers observe packaging design to perceive the actual product inside which acts as an extra or frill having an attraction of extended benefits.
Packaging edifies the viewer’s perception of its color, design, material (metal, canned, corrugated or plastic) and style. It acts as a “silent salesman or salesman in the shelf” [36, p. 64]. Labelling an augmentation tool is an innovative activity deal with the creation of artistry; can be on paper or plastic, designed in style by using different fonts, colors and texture to shape, scale, tempo and proportion, reflecting its users to decipher prominent information about the product [37, 38, 39]. The attractive labels create customer attention, interest and capable of creating a delightful causative expectation of Kano [15] by creating an image of product congruent to their expectation.

Technical assistance and guidance are pivotal in augmentation of efficient handling of consumers’ complaints received via mail, telephone and in-person with discourse for the usage, maintenance and/or disposal of the product creates customer satisfaction and sustain relationships (25, 27, 32, 40]. The objective of assistance is to provide the customer with an enjoyable and trouble-free experience [41]. The consumer credit services play a vital role in the augmentation of product. These services are availed by consumer on their choice. It enhances the consumer willingness to pay and paying capacity with the expectation of repaying in future [42]. The consumer avails the credit facility by the company or other credit providing banks and agencies through credit cards or loans. These services become the source of significant impacts on the consumer buying behaviour and delight experiences. Customer care service is the additional benefit to aid customers for ease and troubleshooting the problems during product usage [43, 44, 45]. Customer care services like coaching about product usage and maintenance under contingencies for safe handling of the product act as a powerful tool for customer pleasure and happiness to have loyalty in the growing competition [43, 44]. Free trials / gifts are benefits or additional or extra parts of product like earphones, chargers, screen guard on purchase of mobile, free auto trails before the purchase of an automobile creates satisfaction before purchase [12, 22, 46]. A high level of product augmentation can be observed in consumer durables or technology driven goods like mobile, television, automobiles etc. in comparison to fast moving consumer goods. The free trials are prominent in technology-driven products as they are more related to prosperity rather than basic need fulfillment as achieved by FMCGs [47]. So, the propensity of free trails and gifts become a value adding tool to create awareness and interest towards product purchase of mobiles and other consumer durables.

Customer delight (joy, happiness, and pleasure), an affective component can be activated cognitively by encompassing recognised beneficiary association with basic product and services through the positive revelation of augmentation efforts [13, 21, 48]. Augmentation efforts of the firm create hedonic benefits leading to delight through retail patronage [21]. Delight is a positive affect created due to the need fulfilment of anticipated and unanticipated benefits associated with products and services [3, 13, 49]. In order to identify the effects of product augmentation predictors in delineating customer delight, the set of propositions were developed to discriminate customer delight in three categories low, moderate and high as suggested by Barnes et al. [50] and Dubey et al. [10] based on Bowen taxonomy [51] for behavioural measures. In this endeavor, through product augmentation ten predictor variables and hypotheses are developed as:

\[ H_1: \text{“Warranty Services” significantly differentiate product augmentation in category 1 (Low Delight), category 2 (Moderate Delight) and category 3 (High Delight).} \]

In an identical manner, the hypotheses \(H_2 - H_{10}\) were framed for predictors that include repair services, accessories, consumer credit, packaging, labelling, technical assistance, network, customer care service, free trials/gifts.

Using a product augmentation framework containing ten predictors, a two-separate proposition discriminating customer delight in categories is as below:

\[ H_{11}: \text{Product Augmentation function 1 carrying 10 predictor variables significantly delineate category 1 (Low Delight), category 2 (Moderate Delight) and category 3 (High Delight).} \]
H12: Product Augmentation function 2 carrying 10 predictor variables significantly delineate category 1 (Low Delight), category 2 (Moderate Delight) and category 3 (High Delight).

3. Methodology

The research insight driving present study is the classification of customer delight in the categories of low, moderate and high through significant product augmentation predictors. Further, some previous studies on customer delight such as Hung and Yeung [52] and Dubey et al. [10] acknowledged that the choices under two or more options ranging from unfavourable to favourable helps to gather varied information about the customer. The convergent thought behind the present propositions underpins the consumer behaviour and business intent for competitive product differentiation by delineating customer delight against weight comparison tendency in three levels [10, 12, 15, 17, 52]. Based in the review of related studies, the delineating property of product augmentation is exhibited as a model in figure 1. The model contains ten predictor variables of product augmentation and three different categories of delight as Low Delight, Moderate Delight, and High Delight.

For the realisation of thought, the ten affective statements are being constructed for Warranty: I sense secure by warranty services of my product/brand; Accessories: My product/brand accessories excite me; Credit services: I admire simple credit services availability at vendor; Packaging: My brand packaging is attractive and safe; Labelling: My product/ label appeals me. Technical support: My product vendor technical support is awesome; Network connectivity: I enjoy network connectivity of my mobile; Customer care services: I feel “wow” during the conversation with customer care services of my product. Free trails/gift: I really adore having free trials/ gifts on the purchase of products. Lastly, the composed effect of product augmentation is measured by the statement “In Overall, I feel _____________ about my product/service”.

Further, the measurement of predictor variables was done by using a five-point Likert scale. Measurement of the dependent variable was being executed by using a three-point delight categorical scale as Low, Moderate and High [10, 48, 53].
3.1 Sample and sample profile
Primarily, around 320 mobile users in four centrally located cities of India i.e. Bhopal, Indore, Jabalpur and Raipur were approached with a developed questionnaire for participation in the survey. In total, 298 users participated in the survey and filled questionnaires were received. On scrutiny of received questionnaires, 51 were found half-filled and the other 47 were dropped due to consistent or same responses across measuring items. The valid sample in the present study contains 85 females and 115 males and 117 were aged up to 35 years. There were 107 married participants in the sample.

4. Results and discussion
The data collected through the survey was investigated at the primary level for reliability by calculating the Cronbach’s alpha value [3]. The psychometric property of scale for measuring internal consistency is established by calculating the Cronbach’s alpha value as 0.726 more than 0.70 fulfilling the contributory expectation [54]. The discriminant analysis was performed for identifying the classification. The descriptive statistics of collected data contain 52, 96 and 52 members in category 1 (low), category 2 (moderate) and category 3 (high) of delight respectively. The difference in mean among three categories was tested by using ANOVA (Analysis of Variance) as exhibited in table 1. The F-value of all predictors exceeds the standard value at the degree of freedom df (2, 197) at a 1% level of significance.

Figure 1. Proposed model of product augmentation and delight.
Table 1. Tests of equality of group means.

| Hypotheses | Predictors         | Wilks' Lambda | F    | df1 | df2 | Sig.  | Result  |
|------------|--------------------|---------------|------|-----|-----|-------|---------|
| H1         | Warranty           | 0.84          | 19.09| 2   | 197 | 0.000 | Accepted|
| H2         | Repair services    | 0.69          | 44.56| 2   | 197 | 0.000 | Accepted|
| H3         | Accessories        | 0.60          | 66.6 | 2   | 197 | 0.000 | Accepted|
| H4         | Credit services    | 0.51          | 92.85| 2   | 197 | 0.000 | Accepted|
| H5         | Packaging          | 0.61          | 63.31| 2   | 197 | 0.000 | Accepted|
| H6         | Labelling          | 0.70          | 42.04| 2   | 197 | 0.000 | Accepted|
| H7         | Technical support  | 0.74          | 34.73| 2   | 197 | 0.000 | Accepted|
| H8         | Network service    | 0.66          | 50.39| 2   | 197 | 0.000 | Accepted|
| H9         | Customer care      | 0.82          | 21.41| 2   | 197 | 0.000 | Accepted|
| H10        | Free Trials        | 0.86          | 16.51| 2   | 197 | 0.000 | Accepted|

The corresponding p-value of the predictor is also found low at \( p < 0.01 \). Hence, the alternative hypotheses from \( H_1 \) to \( H_{10} \) are accepted at 99% of confidence level confirming that all predictor variables are capable of classifying customer affective responses in certain categories. The results affirm that the customer delight responses (low, moderate and high) differ significantly among the predictors of product augmentation.

Table 2. Summary of canonical discriminant function.

| Function | Eigenvalue | % of Variance | Cumulative % | Canonical Correlation | Hypothesis Test Result |
|----------|------------|---------------|--------------|-----------------------|------------------------|
| 1        | 7.599      | 98.4          | 98.4         | 0.940                 | \( H_{11} \): Accepted |
| 2        | 0.120      | 1.6           | 100.0        | 0.327                 | \( H_{12} \): Accepted |

In the exploration of the delineating nature of product augmentation, we identify the largest percentage of variance 98.4% for function 1 with sufficiently high eigenvalue 7.599 and towering chi-square metric 435.999 along with strong positive correlation of 0.940 with predictor variables confirming the superiority of function 1 (refer table 2). Function 2 is responsible for residual discrimination by 1.6% of the variance. The function 1 and function 2 are canonical discriminant functions representing the best linear combination of predictors of product augmentation delineating categories of delight. On examination of the \( p \)-value, we accept the alternative hypothesis \( H_{11} \) and \( H_{12} \) at 99% of confidence level confirming the existence of customer delight in categories of low, moderate and high. The function 1 had maximum delineating nature in customer delight from product augmentation model. For identifying the structure of the model, table 3, exhibits structure matrix and canonical discriminant function coefficient. The structure...
matrix represents pooled within-groups correlations between the discriminating/predictor variables. The predictor variables like accessories, Network service, technical support, and warranty have the largest and unique contribution to the discriminant function 1 and remaining predictor variable subsidise the discriminant function 2 for delineating the delight categories apart (refer asterisks marks in table 4).

Table 3. Contribution of predictors in classification.

| Predictors      | Structure Matrix | Canonical Discriminant Function Coefficients (Unstandardised) | Vector Magnitude |
|-----------------|------------------|---------------------------------------------------------------|------------------|
|                 | Function        | Function          | 1              | 2              | 1              | 2              | 1              | 2              |                   |
| Accessories     | 0.298*          | -0.04             | 0.751          | -0.01          | 0.75           |                   |
| Network service | 0.259*          | 0.075             | 0.562          | -0.033         | 0.56           |                   |
| Technical Support | 0.215*          | 0.144             | 0.426          | -0.017         | 0.43           |                   |
| Warranty        | 0.160*          | 0.001             | 0.47           | 0.102          | 0.48           |                   |
| Credit services | 0.345           | -0.564*           | 0.525          | -0.537         | 0.75           |                   |
| Packaging       | 0.283           | 0.533*            | 0.576          | 0.709          | 0.91           |                   |
| Free Trials     | 0.133           | -0.518*           | 0.425          | -0.362         | 0.56           |                   |
| Labelling       | 0.232           | 0.372*            | 0.518          | 0.422          | 0.67           |                   |
| Repair Services | 0.241           | -0.322*           | 0.556          | -0.448         | 0.71           |                   |
| Customer Care   | 0.165           | 0.304*            | 0.514          | 0.296          | 0.59           |                   |
| (Constant)      | -               | -                 | -20.636        | -0.394         | -              |                   |

*. Largest absolute correlation between each variable and any discriminant function.

This fulfills the sufficient condition of study that one delight category is different from another by creating remaining discrimination. Function 1 and function 2 can be obtained by canonical discriminant function coefficients of table 3 as:

$$D_1 = 0.470(Warranty) + 0.556(Repair) + 0.751(ACCESSORIES) + 0.525(Credit services) + 0.576(Packaging) + 0.518(Labelling) + 0.426(Technical Support) + 0.562(Network service) + 0.514(Customer Care) + 0.425(Free Trials) - 20.636.$$  

$$D_2 = 0.102(Warranty) - 0.448(Repair) - 0.010(ACCESSORIES) - 0.537(Credit services) + 0.709(Packaging) + 0.422(Labelling) - 0.017(Technical Support) - 0.033(Network service) + 0.296(Customer Care) - 0.362(Free Trials) - 0.394.$$  

The present study retorts validity of the discriminant model as the computed hit ratio was 94.0% [(52+85+51)/200]. In three categories, the percentage of chance qualification is 1/3 = 0.33. For the legitimacy of the discriminant analysis classification, validity obtained from the discriminant analysis is 25%, greater than that obtained from chance, i.e. 58% [0.33+0.25=0.58][20]. On comparison, the computed hit ratio of the sample (97%) and cross-validated group (95%) as exhibits in table 6 is greater than the maximum chance criterion of 58%; confirming validity and classification of customer delight in the categories by product augmentation model in the present study.

The spatial distance and centroid values (3.895) in figure 2 show the delineating nature of significant function 1 classifying category 3 (high delight) from category 1 (low delight) and category 2
(moderate delight). The function 2 found significant and approving further classification of categories. The function 2 delineate category 1 (low delight) and category 2 (moderate delight) as it found significant (refer table 2).

**Figure 2 Canonical Discriminant Functions**

![Graph showing discriminant score of every respondent with small bubbles. The black square box nomenclature as 1, 2 and 3 are representing three categories as group centroids with values on the table accompanied in figure 2. The group centroids are the mean of a discriminant score of respective categories and positioned in space by considering linear discriminant function 1 as x-axis and function 2 as the y-axis. For the practical implication of the study, the attempt has been made to profile each category for understanding the nature of categories in depth.](image)

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4.1 Development of delight profile

Customer delight and loyalty have cognitive, conative, affective and behavioural predictors [55, 56]. Measuring such predictors and their behavioural patterns in absolute terms was tough. However, in relative terms it gives handy information to marketers. The discriminant analysis becomes potent by using graphical statistics, i.e. perceptual map to recognise the nature of predictors and categories [57, 58]. In order to design a perceptual map, we assumed function 1 as x-axis and function 2 as the y-axis in figure 3. The predictor variable and group centroid were measured as a vector quantity by the discriminant coefficients (table 3) and discriminant scores mean i.e. group centroid (figure 2) in respective functions. The perceptual map Plot A and Plot B of vectors were created as shown in figure 3 for profiling customers.
4.1.1 Chill affect: low delight
This category of customers had a low level of delight by the product augmentation efforts of the company on predictors customer care, labelling and packaging as function 2 classified (table 3; figure 3). The positive coefficient on customer care services, packaging and labelling was appeared in function 2, classify low delight or chill category from other categories. The arrow ‘P’ points the direction of three predictor variables (table 3; figure 3, Plot A) customer care services, packaging and labelling towards up-located low delight centroid (figure 3, Plot B). This group of customers satisfied and feels somewhat happy due to customer care services of their mobile. The customer care service of these mobile users was able to attract them to some extent as the mean value is found lowest i.e. 3.56. Packaging of smartphone is necessary for safeguarding it from damages. The vector magnitude 0.91 was found highest affirming the pleasure experiences of these customers (table 3) in responses. Herzberg two factor theory of motivation found true in this situation. The Herzberg necessity factor describes that packaging was necessary for this customer category but it will not motivate customers affectionately in product experience [14]. The labelling played a pivotal role in discriminating these categories. The labels on the product attract these customers as the vector magnitude was found to be 0.67 with a discriminating power of 0.709 (table 3). The Chill category customers feel happy by knowing the description of product attributes in labels during a purchase at retail [37, 38, 39]. These all factors revolve around the product attributes and interaction during the retail service encounter of the customer.

4.1.2 Smile affect: moderate delight
The obtained category 2 was a moderate delight customer group having smile affects separated from other categories through function 1 and 2 simultaneously. On further analysis of figure 3, we identified the extent
of delineating nature of function 2 classifying moderate delight through predictor variables like credit services, free trials, and repair services. The arrow ‘R’ is pointing the negative direction of these variables towards the moderate group centroid (figure 3). Similar results can be evident from the structure matrix in table 3 that these three variables have a negative correlation value in function 2. On analysing means of repair services (3.97), credit services (3.91) and free trial (4.14) it is apparent, this customer group is delineated marginally from the low and high delight customer group. This group admires easy and time-saving credit services procedures/policies. Firms’ effort to reach near to customers by proper vending of products was appreciated. It helped customers to go through the easy, reliable and hassle-free ordering of the products. The safe repair services due to the availability of spares and expertise of staff related to smartphones rendered by vendor and company created customer satisfaction and moderate delight [32, 34]. In South Asian countries, the availability of service stations for after-sales services equipped with trained and promising manpower is a significant factor for the firm’s success. Lastly, this group adored free gifts and trails on or before purchasing the products confirming the effect on customers that was apparent from sufficient coefficient value in table 3 [46]. The firm’s effort to provide product trails for experiencing the latest development and new technology through physical evidence augmented reality (AR) or virtual reality (VR) was appreciated moderately [59, 60]. Moreover, such experiences are appreciated (smile) by customers during product evaluation and product decision making [15, 17].

4.1.3 Feat affect: high delight
This category of customers is a triumph of the firm’s augmentation effort. This category carries a high delight customer group due to predictor variables like warranty, accessories, technical assistance, and Network service. Accessories carry a positive correlation of 0.298 followed by Network service, technical assistance and warranty services entered in most significant function 1 (table 2). The arrow ‘Q’ shows the direction of these predictor variables towards the group centroid of high delight customers (figure 3). Customers enjoyed the feeling of safe and assured products through warranty services of firms with a high mean value of 4.65. It confirms the faith of customers on the firm in safeguarding the interest by free repair or replacement from uncertainty due to the malfunctioning of mobile phones [29, 31, 32]. The accessories of smartphones like a powerful charger, long battery life, advanced earphones, gorilla screen guard, stylish covers or panel have the highest mean value of 4.75. In India, the smartphone is status goods. The accessories help in realising the utmost pleasure in the comfortable use of digital media, socialisation through the network, exploration on the internet, and access to marketing information from a mobile phone [35, 61, 62]. The technical assistance provided by the company/vendors for product features and usage for learning utility of mobile like fingerprint sensing etc. has an awesome effect on customers of this category [27, 32, 41]. The ready network service services on customer desire to switch among service providers and selecting willing network like 3G, 4G etc. handsomely appreciated by high delight customers. The prompt installation services like reinstallation software in the phone, application downloads, application options available, free assistance were widely appreciated by customers, creating enjoyment with the company, product and the brand [31, 63]. In the present study, the product augmentation of the smartphone through warranty, accessories, technical assistance, and network service created enthusiasm [15] and delight [17] of high end. The present study suggests some managerial implications of segmentation based on delight responses and product augmentation of the smartphone.
Table 4. Summary classification of predictors.

| Necessity | Hybrids | Enthusiasm |
|-----------|---------|------------|
| Basic | Performance | Delight |
| Chill (Low Delight) | Packaging, Labelling, Customer Care | - | - |
| Smile (Moderate Delight) | - | Credit services, Repair Services, Free Trials | - |
| Feat (High Delight) | - | - | Accessories, Network service, Technical Support, Warranty |

5. Managerial implications and future scope of study
The present study entices to steer marketers, entrepreneurs, and researchers from its findings and implications. For simplistic and concise understanding, the magnitude of predictors as a vector is quantified in table 3 by using the vector magnitude formula (square root of the sum of squared predictor canonical discriminant functions coefficient in respective function). It exhibits packaging, Credit services, accessories, repair services and labelling was found significant for smartphone business creating customer surprises, joy, and happiness [10]. The viability of classification poise that top three predictors (table 3) classified their respective delight category in low, moderate and high delight as exhibited in table 4. The summary classification of predictors in table 3 developed a snapshot of the delineating nature of predictor variable budding out from discriminant and vector analysis. In order to articulate significant insights from a proposed model of delight based on product augmentation, the framework was not merely a positive high-end feeling [15, 17], but also provides an extension of customer excitement and enthusiasm. In this context, the smartphone customer feels the excitement in ordinal categories. The mobile companies can delight the customer at varying levels by using this method of product augmentation. The smartphone users feel pleased due to packaging, labelling and customer care of mobile companies as appeared in the present study. The augmentation effort like hassle-free Credit services, prompt repair services, and free trials make customers confident and happy. The firms and product designers should focus on developing the more promising product and service as well, rather than packaging and labelling of the commodity. The findings enveloped the thought of budgetary control over augmentation efforts, especially on necessity factors. The mean value of these predictors is more than 60% in agreement scale, a chill affect, affirming the novelty of present study through the two-factor model by Herzberg [14], Kano [15] delight model and contribution of Fuller and Matzler [17]. Enhancing product augmentation such as packaging, labelling, and customer care will push customer purchase and consumption to some extent, but it risks the high investment and efforts on these necessity factors. The phone accessories, network service, technical support, and warranty are prominent predictors of high delight customer category [15, 17]. The market researcher can utilise this model to segment the market and perform conjoint and multidimensional scaling for predictor related attributes [64].

The study assists the present and forthcoming business in the telecom sector to focus on these prominent product augmentations based on customer delight while new product development (NPD)
process [65]. The present study suggests augmenting in networking like cloud computing based on customer cognitive and affective need for the product developers and designers, at the front end of innovative projects. Further, the study contributes for peer researchers to utilise this framework of psychographic segmentation and advance drawings on other product types such as television, tablets, laptops for better generalisation of results. For business and marketing excellence, the present research work concludes the theoretical and empirical understanding of consumer behaviour.

6 Conclusions and limitation of study
In the discriminant analysis, defining affective categories of delight is a herculean chore, but the perceptual map facilitated trouble-free rational visualisation of empirical yield. The present study classified the firm’s efforts of product offering through an augmentation in behavioural segmentation. The present study hails a variety of inputs like warranty; accessories, technical assistance and network service that are significant for mobile and consumer durable businesses. This study is limited to the smartphone; however, it gives bright insights about product development and augmentation to the particular business. The moderate delight customers are underpinning the risk of evolving, revolving and devolving mobile business. Locating and enhancing augmentation effort with understudy predictor variables like credit services, free trials, and repair services will help in converting moderate delight (Smile Affect) to high delight (Feat Affect). The present study implies that the low delight customers are satisfied ones as expectations are fulfilled but discovering augment efforts like customer care services, repairs services and a free trial of products to switch them to the next delight level requires attribution study separately. As the present study is concise to central India, the need for affect drastically varies by location, gender, and occupation for products and services.

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