**Measuring the effect of Colour Psychology on Consumer Buying Behavior**

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**Abstract**

The main aim of the study is to assess and explore the role of colour psychology in influencing the consumer’s buying behavior and also to assess the effect of gender on consumer’s buying behavior. The data was collected from Dehradun city by using street intercept method. A total of 411 questionnaires were administered out of which 385 were utilized for the purpose of the study. The confirmatory factor analysis, independent sample t-test and the structural equation model was used in this study.

There exist a positive relationship between colour Psychology and consumer buying behavior moreover there is no effect of gender on consumer buying behavior.

**Keywords**- Consumer Brand Psychology, Colour, Visual Thinking, Communication

1. **Introduction**

Color associated with the product has its own significance in recognition of particular product or brand. Imagine a product with no color or background, you will have different imagination or we can say no imagination about that product. Color of the product is nothing but the reflection of the lights which create sensory imagination in our brain and finally a picture developed in our mind about that particular product or brand. In consumer psychology color has its own meaning which influence the buying behavior of the customers. The color combination incorporated with the product has its unique identification which helps in differentiating the one product from anther product. The color of the product has its relationship with the genders also. Enough evidence available which indicates the relation of color with gender like pink is the favorite color of females. Blue is the most popular color among males. According to proponent of color psychology the color defines a personality trait. The color choice tells us a lot about an individual and it is attached with emotion, physical and mental state. It is also found from the research that color you dislike also define your weakness. The ten colors which dominate in defining the personality trait are: -

1. Red: - Red color personality identifies extrovert and optimistic personality. The individual bearing this personality trait are courageous and confident.

2. Orange: - Orange color represents a personality trait that inclined a great need for socialization means a kind of extrovert personality trait.

3. Yellow: - Yellow represents a personality trait which inclined towards happiness and love

4. Green: - Green color represents a personality trait for individuals who are down towards the earth and environment friendly.

5. Blue: - Blue color represents the personality traits that are deep rotted for personal inner peace a kind of introvert personality trait.

6. Pink: - Pink color is the favorite color among females and most preferred color among females when question of deciding the particular color choice is concerned.

7. Black: - Black color represents the personality trait who believes in premium. Color which represents status symbol.

8. White: - White color represents a personality trait in which individual want a peaceful felling while selecting that color.

9. Purple: -Purple color represents the personality traits that are spiritual and is said to be good judge of characters.

10. Turquoise: - Turquoise color represents a personality trait of deep need to create an emotional balance in the life.

Colors are very important in marketing a particular product or brand because it is one of the strong bases for differentiating one brand from another brand. Color combination approach in designing a product play significant role in creating a completive edge difference among the competitors. Marketer always treats to create a color structure which suit to the nature of the product and consumer. They try to establish an emotional attachment relationship between consumers and product. Color tigers a diverse set of responses within the cerebral cortex of the brain and it reaches to the brain through nervous system. The perception of an individual about a color has its own importance to human evolution and enough evidence in this context is available in the secondary research. Once we identify a particular color it produces a chemical reaction inside the brain and generates an emotional vibration which create a connection between individual and product. This response gives a meaningful thought and a memory is developed in our brain about that event, place, people or product. Color conveys a mod and emotional state in the mind of the customers. Each color conveys a mood and emotion and marketers smartly used this color psychology in the promotion of their product or service. When you visit any restaurant, you find different color which is one of the important aspects of marketing when a question of physical evidence is concerned. The first impression which comes to the minds before an individual experience is the internal ambiance. Example IBM apply royal blue color which define stability and reliability about their product and services. Color is the basic foundation who provides visual identity to a brand and creates difference from the competitors. Studies from literature available in secondary data confirmed that 60 to 80% of customer prefers color choice in priority when they decide to buy a particular product. The color of the product evokes emotion and sense of felling about the product. That is why companies pay special attention while designing the color pattern of the product. The logo, punch line their letter and color pattern play significant role in influencing the buying behavior of the customers. By simply displaying a logo and color a loyal customer recognizes the product or brand. It is evident from the research that 90 % of the customers make the judgment about the product on the basis of color design associated with the product. Colors play important role in influencing the buying behavior of the customers and it has a relationship with the brand recognitions also which differentiated one brand from another brand. Hence, the objectives of study are to explore the role of color psychology in influencing the consumer’s buying behavior also study the effect of gender on consumer’s buying behavior.

1. **Literature review**

**Color**

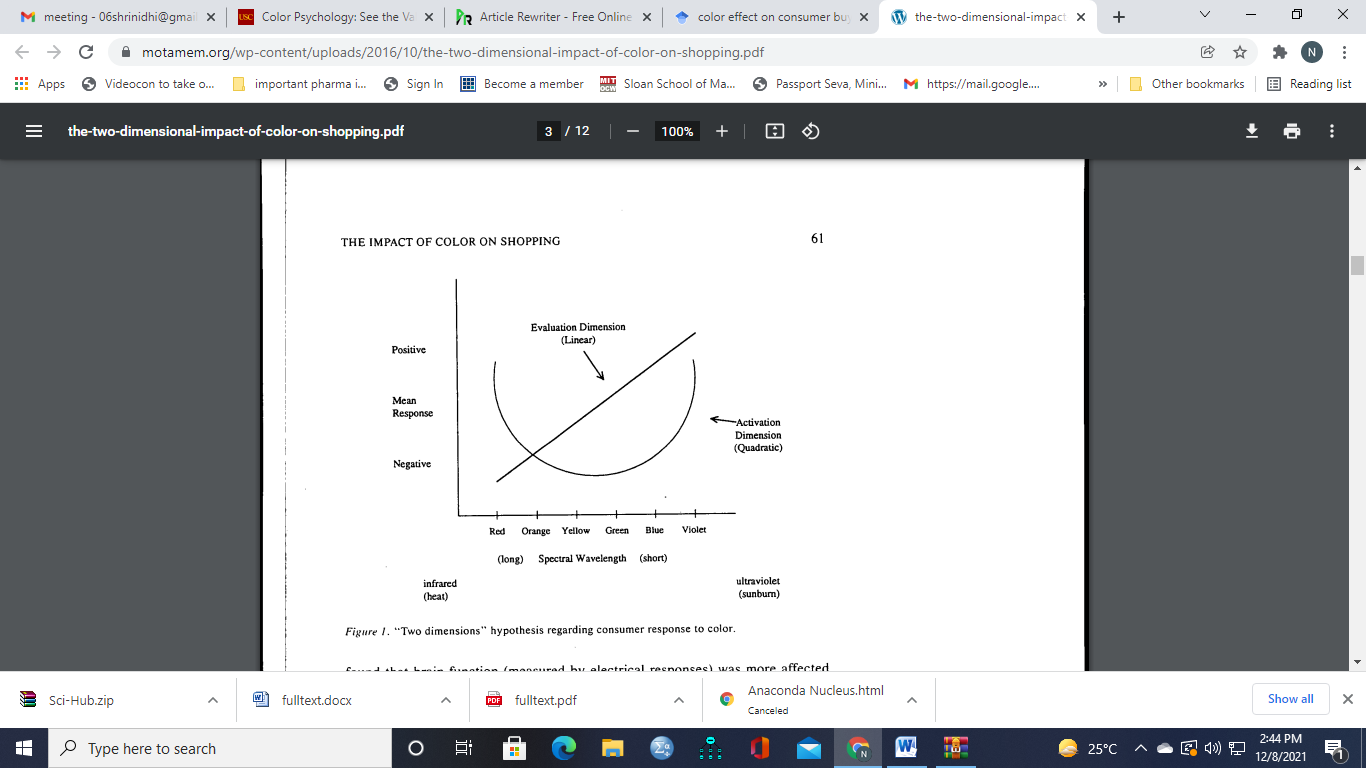
As per the Cambridge English Dictionary “the appearance that something has as a result of reflecting light”. Colors are often seen once the objects replicate the wavelengths in light that doesn't match its atomic structure. These mirrored wavelengths additionally pass our eyes wherever the cones at the rear of the retina transform the wavelengths into impulses that influence people’s perceptions. the cone cells at the rear of our retinas are one in every of two photoreceptors that are sensitive to light. The contrary photoreceptor is termed rod cells. Whereas cone cells work best once there's a bright light, rod cells on the other hand are comparatively more receptive to dim light mention by Pappa (2010) in his paper “how we see colors”. Therefore, color could be a kind of nonverbal communication. Every color has several aspects to it and represents a not similar energy which means will alter from time period to consequent with a person - it all depends on what energy they're expressing at that time in time. The meaning of colors can vary betting on culture and circumstances. Whenever human thinks of buying, he/she gets attracted towards the taste and memory related to their liking towards the particular. Therefore, marketers usually go for creative design of their brand, expand those thoughts into what might be the best colors for printed and/or digital graphics and selecting the best colors for advertising signs.

**Color Psychology**

According to Jung et al., (2015) Carl Gustav Jung is an outstanding psychologist who's greatly related for his works that led to what's now called as color psychology. The concept of at the back of color psychology commenced from Jung’s interest with inside the meanings and additivesof colorsand the way they may be utilized for psychotherapy. Psychotherapy is aexercise of interactions amonghumans with psychological issues or traumas so as for them to enhance or triumph overissues in favored ways. It is through Jung’s widespreadstudies and diverse comparisons amongartistic endeavors and its symbolisms that he turned into able to assemble codes and language the usage ofthose colors. The physiological and emotional outcome of colorin all person is influenced by many factors like past experiences, culture, religion, natural environment, gender, race, and nationality. Color choiceswill influence primarily direct messages and secondary brand values and attributes in any message communication.Color can sharpen our senses, shadeation healers and therapists endorseprecisecolorations to their customersprimarily based totally on precise emotional problems like anger, hurt, depression, resentment etc. By carryingshadeation crystals which aremainlyrecognised to counter those emotions, human beings have better moods and positivity.Color has been used for very long time to create feelings of relaxation or freshness. However, many people are affected by different color incitements vary from person to person. For example, Blue is the top choice for 35% of Americans, further followed by green (16%), than purple (10%) and red (9%) (Emotional Reactions to Color by Kathy Lamancusa).There is proof that color likeness could also base on body temperature. People that are of cold temp prefer to choose red and yellow represent warmness whereas people are of hot body temp choose cool colors as blue and soft naturals color .Some analysis proves that women prefers warm color and men "cool" colors (Whitfield, T. W. A., & Wiltshire, T. J.1990). A few researches have proven that cultural historical past has a sturdyhave an effect oncolor preference. These research have proven that human beings from the equalvicinityno matter race may have the equalcolorpossibilities. Also, one vicinitymight also additionally have one-of-a-kindpossibilities than some othervicinity (i.e., a one-of-a-kindU .S .A .or a one-of-a-kindvicinity of the equalU . S .A .), no matter race.

Maria Carine Cases and Justine Chinoperekweyi (2019) the authors after their finding found that color psychology influence the buying behavior of the consumers in such a way that choosing right color create desired emotion emotions in the minds of the consumers and it influence the consumer to buy the particular product. The effect of color on a person’s psychology varies from individual to individuals. Grind (2018) states that color play important task in designing which help in distinguishing the product. This is the first characteristics that help the people to distinguish one product form other.Lamancusa(2016) states that the perception about a color is the association of felling, opinion and attitude towards a specific color. Bailey (2018) concluded his research that, the perception about a color varies from individual and is very subjective in nature. It is because people have different ideas, experience and preference while choosing the particular color. Davis (2000) the author stated that, the perception about a color is involved the influence of color on human behavior and its impact on perception that we generally unaware off. Wright (2004) the author after their finding found that the color bring ability to recognize color as warning signals. These help the advertisers to design the content pattern which influence the consumer to buy the particular products.Kleijenet al. (1996) in their finding found that color associated with the medicine influence the perceptions of a patient about a particular drug. The patient believes that positive felling they associate unconsciously with the color of pills or tablet will improve their health, though they are not aware of actual substance in it. Loyota (2007) indicated that using appropriate color to manifest message enhance that attention of the color by 82% and it helps in brand recognition by 80%. Color also create positive image in the mind of the customers. Keller and Lehman (2006) found that the core of wrong color while designing a product may deliver wrong message in terms of enterprise perspective. Schmitt (1997) specified in his finding that the identity of brand includes the visual factors like – color, line type and form. Brand identity provides a visible impact in the mind of the customers and creates competitive advantage. Gob’s (2001) indicated that the message of a color to a particular individual is the association of results in cultural and physical reactions. Pertry and Wisonon (2003) studied that the output of each color is result of the various reactions Derrick Daye (2012) concluded his research that adds in advertisement are reads up to 42% more as compared to black and white adds. Naa Ree Lee (2007) after his finding states that color as a sign in a product offer much interpretation, rather than the only one of looking at a product. Human experience brings sensation in the mind of the consumers and finally influences the buying behavior. Ayn E. Crowley (1993) mentioned in their finding that certain colors are more active and activating the brain very actively, but there are color which directing the human brain. Kotlerand Keller (2006) said consumers gives preference to particular color against particular product classes based on learning and that became dependencies between colors and product choice. Behnound (2012) stated that consumers like to acquire the color of a particular product based on the experience and relation they experimented with the particular product. If the experience of a consumer about a particular color is pleasant he or she may prefer to buy the same color of product in near future also. Luscher and Sott (2003) found that blue color and green color are very cool, but color like red and orange are stimulating color .Trent (2000) found that we in general are very much affected by the nature and surrounding, the nature is so deeply rooted in our personality that this effect our soul also. The producer must be assured that while designing the color pattern or color preference the product should be priotized accordingly. Aslam (2006) found that the color can be strategically used in marketing campaign to influence the buying behavior. Silayoi and Speece (2007) states that only few customers focus on product detail and labels attach, but majority of the customer are influenced by the visual appeal induced by the marketer in their promotional campaign .Singh (2006) reviewed after their finding that 60 to 90% of the appraisal is exclusively driven by color. It has been found that color is the central attribute which influence the buying behavior of the customers most while buying a product. Funk and Nidubisi (2006) states that color of a product arose the positive impact in the mind of the customers and it create interest, which finally motivate a customer’s towards buying the product .Bosman and Erasmum (2017) found that, while designing a packaging of a product if the company fail to apply appropriate color it will affect the sales of the product. The author also suggested that while designing the color of packaging it should be chosen wisely. Sun,Adhikari and Koppel (2019) said that color on packaging some time create a fear in the mind of the customers and that may lead to the rejection of the product. Gofmon (2012) found that color of packaging play important in differentiating the product of one company from another company. Bublet al. (2019) found that many interpersonal and situational factors influence the perception of a customer’s assigned to a particular product Fairchild (2013) stated that color has three basic properties which include lightness, chroma and Hue. Hamphill (1996) stated that color is a very powerful marketing tool that accounts the reason that 85% of the purchase behavior is influenced by a color. Empirical research has incontestable that conjointlylookingatmospheres will evoke emotional responses in shoppers (Machleit and Eroglu, 2000) which these emotions, in turn, influence shopping behaviours and outcomes (Donovan and Rossiter 1982, Darden and Babin 1994, Sherman, Mathur and Smith 1997). A rather ignored emotions-evoking partwithin the shopping environment seems to be store interior color (Turley and Milliman 2000).

Any explore patterns in human response to colorshould begin by plotting colors onto some time. The observable spectrum, with colors ordered supported the wavelength of light reactionrelated toevery color, is such a continuum for the current conceptualization. once viewed as wavelengths of visible light, colors is well-arranged from long to short wavelengths as follows: red, orange, yellow, green, blue, violet (in Fig.1).



Wilson (1966) pointed out that wavelengths slightly lengthier than visible red are infrared or heat generating wavelengths. At the contradictory end of the spectrum, elsewhere the visible blue / purple wavelengths, are ultraviolet or sunburn wavelengths (Pavey, 1980).

From an environmental psychological science perspective, Mehrabian and Russell (1974) identified three dimensions of emotions: ‘Pleasure’, ‘Arousal’, and ‘Dominance’. The first concern on the degree to thatan individual feels happy or happyin an exceedingly place. Second refers to the degree of stimulation caused by an environment and the last ‘Dominance’, pointing out the degree to which a person feels up to speed of a scenario and feels to possess influence over his/her surroundings and others. An operationalized atmospheric-based have an effect on two separate, negatively connected dimensions: positive and negative affect. They didn't include a separate arousal component, claiming that, whereasgenerally arousal is either positive or negative, during a retail setting arousal indicators seemto require on rather steady positive or negative meanings (Babin and Attaway (2000). Whereas Gröppel-Klein (1998) argues that ‘arousal’ and ‘pleasure’ appear to unite in a retail setting, as ‘positive activation’ seems to be implicitly registered within the arousal construct, further acknowledges that customersin an exceedingly retail setting may alsoexpertisea nice state of low arousal (i.e. relaxation) which also at the point-of-sale, an excessive amount of arousal will befull-fledged as agitatedand dreadful. As per Beach et al. 1988, Valdez 1993, they found the fact is, most color research is grounded on consumer assessments of color chips and has been noted to be frail. A significantspace of concern involves the failure to use adequately reliable, effective or comprehensive “measures of emotional responses” to color stimuli Valdez (1993). Inspecting emotional reactions as a drive of the size of color hue, saturation and brightness, found support for the PAD-scale Valdez and Mehrabian (1994). Middlestadt, in 1990, confirms that more than 80% of visual informationsare expounded to color, thatmightmanufacturea range of sensory, perceptual, cognitive, and emotive effects. data of the physiological/psychological effects of color has been utilized bynumerous organizations to induce desired activity outcomes (e.g., pink was found to calm inmates in institutions, and is currently used for this purpose once anger is detected (Grossman and Wisenblit, 1999).

Impact of color in marketing

Many organizations have examined consumers’ color likings in order to determine their product’s color or color assortment. In the words of Trent, 1993, knowledge of consumers’ color preferences is important as a result of marketers who acknowledgethatcolors in their lines sell best could also beable to trim product offerings and cut backproducingprices. Triplett, 1996, found that a novel development has emerged in continuously updatation of colorsfrequently. Let’s take an example of automobile industry where they made approx. 30% modification of their colors every year and use color consultants to guide them on the color palette in about four years before a color is announced mentioned in his prior script Triplett, 1995b. Though, analysis on color inclinations for product suggests that buyers often change with standards in their color decisionsfor sure product categories, notably high risk purchases. Accepting the factors that enter into a consumer’s color callcouldfacilitate prevent marketers from holdup and energy chasing the most recent trend. The concept that color preferences are developed through associations could be adoubtlessnecessary finding for promoting practitioners curious aboutdecidingcolors for merchandises. Instead of examine overall color preferences in midstconsumers;it's going to be desirableto find out consumers’ color associations as a basis for thoughtful the emotional aspects of color. Rouland, 1993, on his study on Pentel, a corporationwhich produces school provides, found that green and redweren't preferred colors in class supplies as a result oflecturer’s gives grade in these colors and they will have adverse associations for college students. Marketers may use the speculation of associations to form meanings for explicitcolors or to develop a complete image around a color. Pink color used by Owens Corning to denote its brand of covering material insulation. Further they use the image of the Pink Panther to suggest that the merchandise is trendy and cool. In alternative words, they shaped their own color connotation and established a picture around it. Defining people’s color associations is alsotoughas a result of consumers could have hassle enunciating associations that are complex. An alternate strategy for marketers is to make new color associations which they will control.

*Gender affects buying behavior of consumers*

Pryzgoda&Chrisler, (2000: 554) has mention in their article, gender uniqueness is closely connected to “biological sex” and “gender” is a different concept. Although biological sex states the biological aspects of being female and male, gender denotes the psychological, social and behavioral characteristics of females and males. Therefore, Gender identity is conceptualized as existential femininity or masculinity of individuals (Spence, 1984: 83). There were research studies on the gender inclination towards the things that shows that there are discerniblevariations in what ways men and women behave as shoppers.

It’s clear, men and women supposeotherwiseconcerninglookingand can approach the act of shopping in numerous ways.Males and females wishtotally differentmerchandiseand that they are probablyto ownalternative ways of feeling and getting these (Mitchell and Walsh, 2004). Gender has a crucial role in client behaviors, because, the variations between men and womenconcerning expectation, want, need, life-style and so onreplicate to their consumption behaviors.Gender is often mixed with the term sex while pointing the difference between the two genders. But gender and sex are different. Sex-typed defines that the masculine or feminine characteristics. For instancea product like Barbies dolls pointing the characteristics of female gender and a product hot wheels for masculine characteristics of male gender. Gender distinction doesn't solely influence on-line motivation. It conjointly influences the categories of product that males and females value purchases. In a study, females purchased considerably more on attire (e.g., clothes, shoes and bags), health product, beauty products, toys, games, home accessories and garden accessories than male,(Sebastianelli, Tamimi and Rajan2008). On the opposite hand, males purchased significantly more on component and code and electronic products.

Ekeng et al. (2012), found that biological sex had an effect on the consumers’ instinct buying behavior and that females had more impulse buying behavior than males. The same has been supported by the study conducted by Khan et al. (2016) whoinspected the effect of biological sex on generation Y consumers’ impulse buying behavior for fashion apparel goods. Therefore, the outcome of the study was that biological sex affected generation Y consumers’ impulse buying behavior for fashion apparel goods.

On the basis of above mentioned literature, certain research questions were framed to identify the particularly two aspects; one is an effects of color psychology while consumer purchasing and how marketers specifically draws the attention towards products, second selection of product and buying on the basis of gender identification.

1. **Research Question**

***RQ-1:*** *How does color psychology affects buying behavior of consumers?*

***RQ-2:*** *How does gender affects buying behavior of consumers?*

1. **Research Methodology**
2. **Place of data collection and sampling**

The data was collected from Dehradun city, Uttarakhand using street intercept method from 15 July to 16 August, 2021.

1. **Target Population**

The target population was youths residing in the Dehradun city and purchasing apparels for themselves as a part of their routine life style.

1. **Data Analysis**
   1. **Demographic Information**

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| --- | --- | --- |
| **Table 1**  **Showing demographic information** | | |
| **Gender** | **Male**  **Female** | **214**  **171** |
| **Age (years)** | **18-21**  **22-25** | **245**  **116** |
| **Marital status** | **Married**  **Unmarried** | **00**  **361** |
| **Education** | **Under - graduate** | **361** |
| **Occupation** | **Student** | **361** |
| **Household income** | **15000-30000**  **31000-45000**  **46000-60000**  **61000-75000**  **More than 75000** | **87**  **177**  **49**  **33**  **15** |

* 1. **Data Normality**

The significant values of Kolmogorov-Smirnovin Table 2 for all variables (Sig.) is less than 0.05 which states that the variable is normal and is fit for further analysis

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 2**  **Test of Normality** | | | |
|  | **Kolmogorov-Smirnov** | | |
| Statistic | df | Sig. |
| Pro1 | .253 | 385 | .000 |
| Pro2 | .261 | 385 | .000 |
| Pro3 | .258 | 385 | .000 |
| Pro4 | .253 | 385 | .000 |
| Pri1 | .276 | 385 | .000 |
| Pri2 | .256 | 385 | .000 |
| Pri3 | .266 | 385 | .000 |
| Pla1 | .256 | 385 | .000 |
| Pla2 | .265 | 385 | .000 |
| Pla3 | .244 | 385 | .000 |
| Pr1 | .241 | 385 | .000 |
| Pr2 | .251 | 385 | .000 |
| Pr3 | .257 | 385 | .000 |
| Peo1 | .255 | 385 | .000 |
| Peo2 | .273 | 385 | .000 |
| Peo3 | .264 | 385 | .000 |
| PE1 | .271 | 385 | .000 |
| PE2 | .242 | 385 | .000 |
| PE3 | .231 | 385 | .000 |
| Proc1 | .261 | 385 | .000 |
| Proc2 | .242 | 385 | .000 |
| Proc 3 | .265 | 385 | .000 |
| BB1 | .256 | 385 | .000 |
| BB2 | .270 | 385 | .000 |
| BB3 | .265 | 385 | .000 |
| **Source: Primary data** | | | |

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* 1. **Reliability Analysis**

Table 3 shows that there are no missing variables and the data set contain exactly 385 responses for all variables and contain no missing variables.The value of Cronbach’s Alpha is greater than 0.50 i.e. 0.914 which states that the reliability of the whole questionnaire is 91.40% i.e. if same set of respondents fill the questionnaire at different point of time then the consistency will be 91.40% (Refer the table 4).Further, the value of Cronbach’s Alpha for all the constructs of Service-mix was measured; it indicated the value of Cronbach’salpha as- 0.618, 0.548, 0.562, 0.587, 0.572, 0.598, 0.509 and 0.566. It states that the reliability for every item of questionnaire (i.e. Color Psychology of Product, Color Psychology of Price, Color Psychology of Place, Color Psychology of Promotion, Color Psychology of People, Color Psychology of Physical Evidence, Color Psychology of Process and Buying Behaviour) is acceptable and the data is fit for further analysis. (See the table 5).

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| --- | --- | --- | --- |
| **Table 3**  **Case Processing Summary** | | | |
|  | | N | % |
| Cases | Valid | 385 | 100.0 |
| Excluded | 0 | .0 |
| Total | 385 | 100.0 |

|  |  |
| --- | --- |
| **Table 4**  **Reliability Analysis** | |
| **Cronbach's Alpha** | **N of Items** |
| .914 | 25 |

|  |  |  |
| --- | --- | --- |
| **Table 5**  **Reliability Analysis** | | |
| **Constructs** | **No of items** | **Cronbach’s alpha** |
| Color Psychology of Product | 4 | 0.618 |
| Color Psychology of Price | 3 | 0.548 |
| Color Psychology of Place | 3 | 0.562 |
| Color Psychology of Promotion | 3 | 0.587 |
| Color Psychology of People | 3 | 0.572 |
| Psychology of Physical Evidence | 3 | 0.598 |
| Color Psychology of Process | 3 | 0.509 |
| Buying Behaviour | 3 | 0.566 |
| **Source: Primary Data** | | |
|  | | |

* 1. **Measurement model**
     1. ***Measurement Model Fit Summary***

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| --- | --- |
| **Table 6a**  **Measurement Model Fit Summary** | |
| CMIN/DF | 1.534 |
| GFI | 0.940 |
| NFI | 0.981 |
| CFI | 0.945 |
| RMSEA | 0.037 |
| P-Value | 0.000 |

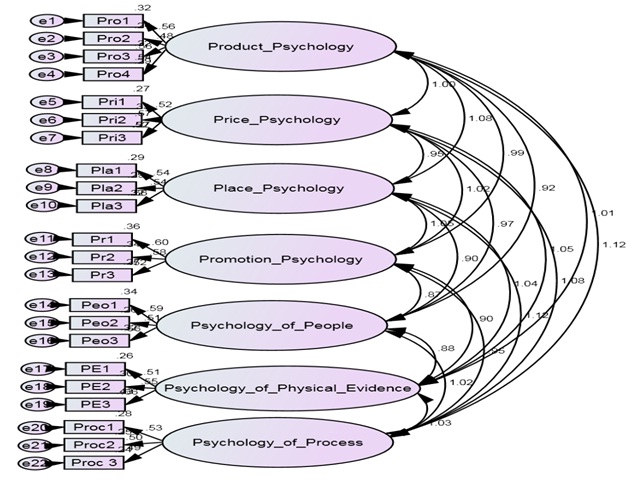
* + - 1. ***Convergent validity***

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| **Table 6b**  **Convergent validity** | | | | | | | | |
| **Sr. no** | **Codes** | **Service - Mix factor Constructs** | | | | | | |
| **Product Psychology** | **Price Psychology** | **Place Psychology** | **Promotional Psychology** | **Psychology of People** | **Psychology of Physical Evidence** | **Psychology of Process** |
| **1.** | **Pro 1** | **.56** |  |  |  |  |  |  |
| **2.** | **Pro 2** | **.48** |  |  |  |  |  |  |
| **3.** | **Pro 3** | **.56** |  |  |  |  |  |  |
| **4.** | **Pro 4** | **.54** |  |  |  |  |  |  |
| **5.** | **Pri 1** | --- | **.52** |  |  |  |  |  |
| **6.** | **Pri 2** | --- | **.57** |  |  |  |  |  |
| **7.** | **Pri 3** | --- | **.52** |  |  |  |  |  |
| **8.** | **Pli1** | --- |  | **.54** |  |  |  |  |
| **9.** | **Pla2** | --- |  | **.54** |  |  |  |  |
| **10.** | **Pla3** | --- |  | **.56** |  |  |  |  |
| **11.** | **Pr1** | --- |  |  | **.60** |  |  |  |
| **12.** | **Pr2** | --- |  |  | **.58** |  |  |  |
| **13.** | **Pr3** | --- |  |  | **.52** |  |  |  |
| **14.** | **Peo1** | --- |  |  |  | **.59** |  |  |
| **15.** | **Peo2** | --- |  |  |  | **.51** |  |  |
| **16.** | **Peo3** | --- |  |  |  | **.56** |  |  |
| **17.** | **PE1** | --- |  |  |  |  | **.51** |  |
| **18.** | **PE2** | --- |  |  |  |  | **.55** |  |
| **19.** | **PE3** | --- |  |  |  |  | **.66** |  |
| **20.** | **Proc1** | --- |  |  |  |  |  | **.53** |
| **21.** | **Proc2** | --- |  |  |  |  |  | **.50** |
| **22.** | **Proc3** | -- |  |  |  |  |  | **.49** |
| **Average Variance Extracted (in %) \*** | | **53.5** | **54.0** | **55.0** | **57.0** | **55.3** | **57.3** | **51.0** |
| **Construct Reliability \*\*** | | **.78** | **.61** | **.75** | **.62** | **.74** | **.74** | **.75** |
| **Source: Primary Data** | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 6c**  **Discriminant validity** | | | | | | | | | | |
| **Service-Mix Constructs** | **Average Variance Extracted** | **Service-Mix Constructs** | | | | | | | | |
| **Product Psychology** | | **Price Psychology** | | **Place Psychology** | **Promotional Psychology** | **Psychology of People** | **Psychology of Physical Evidence** | **Psychology of Process** |
| **Squared inter-construct correlation of all the constructs for the comparison with AVE** | | | | | | | | |
| **Product Psychology** | **.53** | **1** | **.343\*\*** | | **.404\*\*** | | **.357\*\*** | **.295\*\*** | **.368\*\*** | **.395\*\*** |
| **Price Psychology Place** | **.54** | .586\*\* | **1** | | **.272\*\*** | | **.341\*\*** | **.295\*\*** | **.366\*\*** | **.340\*\*** |
| **Place Psychology** | **.55** | .636\*\* | .522\*\* | | **1** | | **.355\*\*** | **.249\*\*** | **.352\*\*** | **.354\*\*** |
| **Promotional Psychology** | **.57** | .598\*\* | .584\*\* | | .596\*\* | | **1** | **.253\*\*** | **.294\*\*** | **.267\*\*** |
| **Psychology of People** | **.55** | .544\*\* | .544\*\* | | .499\*\* | | .503\*\* | **1** | **.259\*\*** | **.302\*\*** |
| **Psychology of Physical Evidence** | **.57** | .607\*\* | .605\*\* | | .594\*\* | | .543\*\* | .509\*\* | **1** | .**310\*\*** |
| **Psychology of Process** | **.51** | .629\*\* | .582\*\* | | .595\*\* | | .517\*\* | .550\*\* | .557\*\* | **1** |
| **Source: Primary Data** | | | | | | | | | | |

* + - 1. ***Discriminant validity***

**Fig 1- Confirmatory Factor Analysis**



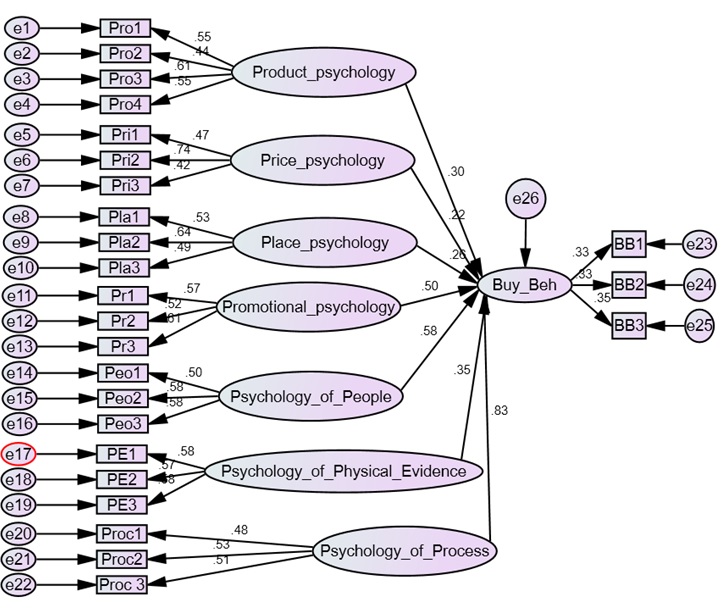
**5.5 Structural equation model for effect of color psychology on buying behavior of consumers**

* + 1. ***Structural model fit summary***

|  |  |
| --- | --- |
| **Table 7a**  **Structural Model Fit Summary** | |
| **CMIN/DF** | 1.698 |
| **GFI** | 0.922 |
| **NFI** | 0.988 |
| **CFI** | 0.920 |
| **RMSEA** | 0.022 |
| **P-Value** | 0.000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 7b**  **Effect of color psychology on buying behavior of consumers** | | | | |
| **Path of causal relationships** | | | **Estimate** | **P** |
| Buying Behaviour | <--- | Product Psychology | .298 | .081**Insig** |
| Buying Behaviour | <--- | Price Psychology | .225 | .136**Insig** |
| Buying Behaviour | <--- | Place Psychology | .261 | .109**Insig** |
| Buying Behaviour | <--- | Promotion Psychology | .500 | .004S**ig** |
| Buying Behaviour | <--- | Psychology of People | .584 | .001 **Sig** |
| Buying Behaviour | <--- | Psychology of Physical Evidence | .352 | .039 **Sig** |
| Buying Behaviour | <--- | Psychology of Process | .829 | \*\*\* **Sig** |
| Source: Primary Data | | | | |

**Fig 2- Structural Equation Model**

****

* 1. **Independent sample t-test**

The significant value i.e. Sig. (2-tailed) is more than 0.05 which states that there exist similar responses from between males and females regarding consumer buying behavior**.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 8a**  **Group Statistics** | | | | |
|  | **Gender** | **N** | **Mean** | **Std. Deviation** |
| **BB1** | Male | 214 | 3.6215 | 1.32923 |
| Female | 171 | 3.4912 | 1.35199 |
| **BB2** | Male | 214 | 3.6168 | 1.36106 |
| Female | 171 | 3.5673 | 1.32393 |
| **BB3** | Male | 214 | 3.3692 | 1.39724 |
| Female | 171 | 3.5614 | 1.39348 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **Gender** | | | **N** | | | **Mean** | | | **Std. Deviation** | | |
| **BB1** | | |  | | |  | | |  | | |  | | |
| **BB2** | | |  | | |  | | |  | | |  | | |
|  | | |  | | |  | | |  | | |  | | |
| **Table 8b**  **Independent sample t-test** | | | | | | | | | | | | | | |
|  | | **Levene's Test for Equality of Variances** | | | **t-test for Equality of Means** | | | | | | | | | |
| **F** | | **Sig.** | **t** | | **df** | **Sig. (2-tailed)** | | **Mean Difference** | **Std. Error Difference** | | **95% Confidence Interval of the Difference** | |
| **Lower** | **Upper** |
| BB1 | Equal variances assumed | .160 | | .690 | .948 | | 383 | .344 | | .13027 | .13738 | | -.13985 | .40038 |
|  | Equal variances not assumed | .946 | | 361.775 | .345 | | .13027 | .13764 | | -.14041 | .40095 |
| BB2 | Equal variances assumed | .404 | | .525 | .359 | | 383 | .719 | | .04957 | .13793 | | -.22162 | .32076 |
|  | Equal variances not assumed | .361 | | 368.576 | .719 | | .04957 | .13750 | | -.22082 | .31996 |
| BB3 | Equal variances assumed | .792 | | .374 | -1.343 | | 383 | .180 | | -.19224 | .14315 | | -.47369 | .08921 |
|  | Equal variances not assumed | -1.343 | | 364.901 | .180 | | -.19224 | .14310 | | -.47365 | .08916 |
| **Source: Primary Data** | | | | | | | | | | | | | | |

1. **Results and discussions**

Hence structural equation model shows as follows-:

There is a significant positive relationship between Psychology of Product and consumer buying behavior.

There is a significant positive relationship between Psychology of Price and consumer buying behavior.

There is a significant positive relationship between Psychology of Place and consumer buying behavior.

There is a significant positive relationship between Psychology of Promotion and consumer buying behavior.

There is a significant positive relationship between Psychology of People and consumer buying behavior.

There is a significant positive relationship between Psychology of Physical Evidence and consumer buying behavior.

There is a significant positive relationship between Psychology of Process and consumer buying behavior.

Therefore the above finding suggests that there exist a positive relationship between color Psychology and consumer buying behavior.

There is no effect of gender on consumer buying behavior i.e. males and females fetch similar responses towards consumer buying behavior for appearels regarding color psychology.

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