

# Impact of Colours of FMCG Packaging on Consumer buying Behavior

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## Abstract

Colour influences human perceptions and invokes feelings and emotions in them. Around the globe, the meaning of colours changes according to cultures, places, traditions and other demographics. Colour preferences develop in humans from a very young age and change with age. Different colours have different emotions associated with them. Warm colours tend to increase arousal than cool colours. Colour is an important factor as far as branding is considered. The packaging colours of products speak for the product itself. Different products have stereotypical colours associated with them. Colours of FMCG product which are mostly bought on impulse based need to call out for customers. In this research, we have studied how colour influences the buying behavior of the consumers. Through this research, the colours tend to influence consumers based on different age groups has also been studied. This study can be used as an essential tool for FMCG businesses to increase the reach of their products among customers.

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## 1. Introduction

Colour plays a vital role in how we perceive things. According to psychology, colour has a strong relation with human emotions. Each colour has a specific meaning and has the ability to influence human minds. The effective use of colour in marketing plays a vital role in buyer preferences. The most cost-effective way of increasing sales is by giving it an attractive and appropriate brand label. Colour acts as a quiet salesperson and is the cheapest way of increasing sales. With the growing number of choices available to consumers, colour helps in creating a strong form of visual identity and relation with the consumers. The stiff market competition urges manufacturers to innovate in products and product packaging so as to remain sustainable in the market. Each consumer is different; hence the package colour must be designed keeping in mind the targeted customers. The major buying impulse of consumers happens within the first few seconds from interacting with the product. Hence brand labels should be able to effectively convey the feel and taste of the product in an appealing way. Hence, the psychology of colour and its effect on human psychology is important in giving customers a better experience and feeling while shopping and also in understanding the key factors where marketers can focus upon.

Different colours impart different meaning to people. While some colours such as red, orange, yellow are said to create high arousal, colours such as blue, green etc. are more relaxing and peaceful. Products nowadays are branded according, so that it conveys ample product information to consumers in an appealing manner. Some manufacturers go to the extent to display their products in transparent packages. Colour is considered to be the most expressive form of marketing. Logos remain crucial for every product brand, and it conveys powerful emotions to every consumer. Studies have said that products labeled as good brands often fail to pass blind taste tests, which convey that consumer probably prefers the brand value over taste. A package design must cater to multiple requirements such as function, form, aesthetics,

colour etc. A good package design must be a good combination of all these.

Impulse buying behavior of consumers is unplanned or spontaneous buying of products by consumers. When such buyers walk in, most have no prior product information. They opt for products that emotionally and visually appeal to them. Fast Moving Consumer Goods (FMCG) products are those goods that are produced on a large scale, are cheap and bought more frequently by users. These products especially confectionery, biscuits, beverages etc. are probably those which are bought on an impulse basis and mostly colour cued. This research is to understand the underlying factors behind this.

## **2. Objectives of the study**

This research is based on the following objectives:

1. To understand how the colour of packaged food especially FMCG goods such as chocolates, biscuits and tetrapak beverages influence human psychology and promotes buyers to purchase it
2. To understand how the colour of FMCG goods psychologically affects the consumers in each age bucket. The research is done in India and covers an age category of 15 to 55 years
3. To understand the main factors that influence customers to buy a product as to give them the best experience while they shop and to improve marketing strategies

## **3. Literature Review**

Colour is seen by the human eye when light is reflected or emitted by objects. The different rate of absorption and reflection causes different hues for these objects. A white object appears white as it absorbs no colour and reflects all. On the other hand, a black object absorbs all the colours and reflects none.

Electromagnetic waves are the range of electromagnetic radiation classified into different rays according to their wavelengths. It has a frequency spectrum ranging from below 1 hertz to 1025 hertz. The

wavelength ranging from 380 nm to 780 nm is the visible light and is perceived by the human eye. Radiations having a frequency in the visible spectrum hit off an object, it strikes the human eye, this causes a visual perception of the object mainly its colour.

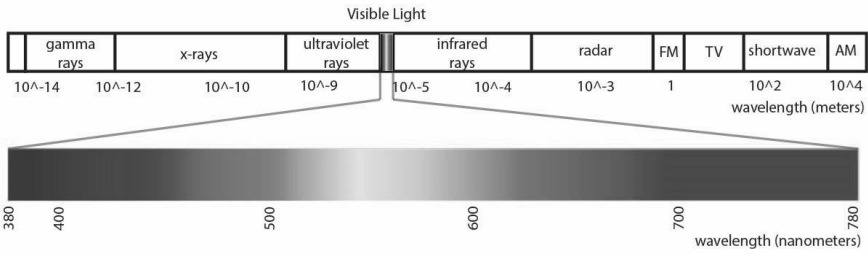


Fig. 1: Electromagnetic Spectrum

(Source: [https://www.miniphysics.com/electromagnetic-spectrum\\_25.html](https://www.miniphysics.com/electromagnetic-spectrum_25.html))

The colour wheel is an arrangement of colours in a circular form according to their chromatic relation. The primary colours (P) are those colours which cannot be formed by mixing any colours. These are red, blue and yellow. Whereas, secondary colours (S) are those which are obtained by mixing two primary colours. Mixing secondary and primary colours gives tertiary colours (T). Complementary pair of colours are those which are on the opposite sides of the colour wheel. Pair of complementary colours brings out high contrast when used in designs. Analogous colours are set of three colours which are adjacent to a colour and usually represent harmony.

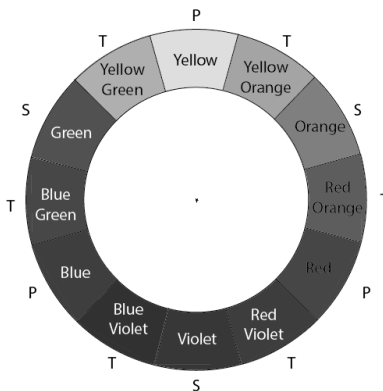


Fig. 2: Colour Wheel

(Source <http://www.spectrumnoir.com/an-introduction-to-the-colour-wheel/>)

The colour red has the longest wavelength, and violet has the shortest. Hence, red is used in traffic signals etc. so that it is visible from a long distance. Table 1 describes the colour and its wavelength.

Table 1: Wavelength of colours

| Colour | Wavelength |
|--------|------------|
| Violet | 380–450 nm |
| Blue   | 450–485 nm |
| Cyan   | 485–500 nm |
| Green  | 500–565 nm |
| Yellow | 565–590 nm |
| Orange | 590–625 nm |
| Red    | 625–740 nm |

(Source: <http://www.livephysics.com/physical-constants/optics-pc/wavelength-colors/>)

### 3.1 Colours and its effect on human emotions

Colours tend to excite the human mind and convey different emotions to different consumers. Colours are psychological experience (Sevinc & Kelechi, 2014). Human brain receives signals faster through eyes rather than through their ears. Colours according to their wavelength, evokes certain feelings in humans. With colours, people can set feelings, bring in attention, or make a declaration. While considering colours, warm colours are considered appetizing and used in food advertisements and fast-food restaurants. These warm colours urge a feeling of hunger in the people and influence them to buy it. Cool colours such as blue, green etc. relate to cleanliness, peace and are advertised mainly on products for personal hygiene. Colours are omnipresent. The colours of the surrounding walls also make one to express them. The ambience of a particular space, for example, shops also affect how people reach out to products. Individuals gain practical experience by observing the shopping behaviour of others and doing their own shopping (Johan & Michiel, 2010). Colour is a design device which is appropriate for introducing the aesthetical, representational or cultural implications of the surroundings. According to Steven and Kelechi (2014), college walls that were painted grey and green were inviting and relaxing to the students.

The particular space needs to be functional for the reason for which it was made. Colours play a major role in bringing functionality to the space. The interplay of light with a particular space imparts different shades of colour to different objects. Thus, the colour of the surrounding space and object influence the human mind.

### **3.2 Role of colour in marketing**

Be it anything from newspapers to pamphlets, from television advertisements to billboards, from social media promotions to packaging of products all are different ways of marketing a product. According to Kohli and LaBahn (1997), colour, if appropriately selected may bring, inherent and immediate value to the brand. The colour of the package of a product plays a vital role in catching the consumer's attention and biasing the mind to buy the product. The intrinsic meaning of colour, if appropriately selected, can bring inherent and immediate value to the brand (Kohli & LaBahn, 1997). Our conscious mind makes a positive or negative reaction to different colours within 90 seconds (Dash, 2018). This study states that the colour impression can account for 60% of the acceptance or rejection of the product as suggested by psychologists. According to businesses, the need for their products to stand out in a supermarket shelf is one of the marketing strategies.

The affiliations our minds make with specific hues are critical to overcoming any issues between showcasing materials and their intended interest groups. At the point when you take a gander at normally utilized hues in publicizing for your industry, you'll see a large number of similar ones springing up over and over. It is anything but a fortuitous event, and they're not simply your rivals' preferred hues! These are the hues that crowds will show in general interface with their necessities and desires from brands in your industry.

Picking which hues are the perfect palette for your promoting and publicizing endeavours is part tasteful, part testing and part science. The study will investigate shade promotion to assist the society and impart its messages most adequately.

#### 4. Methodology

In this research, we have focused on four age categories of 15 to 22, 23 to 30, 31 to 45 and 46 to 55 years in India and the products focused upon are FMCG products such as biscuits, chocolates, tetrapak drinks and cakes. We aimed to cross approximately 200 respondents. These products have been chosen as they are commonly used by a large population and are mostly impulse-driven. The population considered here involves every individual who goes out to purchase FMCG products. The sampling method used was convenience sampling, a non-probability sampling technique. The respondents were chosen from acquaintances and further so. In quantitative analysis, the questionnaire was made to understand buyer perceptions and likes. For the secondary data collection, journal publications, books, websites etc. were referred.

The independent variables considered in this research were **colour**, **age** and **taste**, whereas **sales** was the dependent variable. Primary data was collected using structured self-administered questionnaires consisting of Likert scales and categorical scales which included questions based on the image to analyze how each variable affects sales of the product. Once the responses were obtained from 276 respondents, an analysis was done with descriptive statistics using MS Excel.

The research was based on the following hypothesis:

1. Colour of the product package influences consumers to buy the product
2. Different age categories have different colour preferences while buying products
3. Warm colours are more attractive than cool colours while buying biscuits, cakes, etc.
4. Taste is more important than package colour when people buy an already tasted product

### 4.1 Data Analysis and Interpretation

The questionnaire was randomly distributed to 276 respondents in age categories of 15-22, 23-30, 31-45, 46-55 years. The responses from 22 to 30 were the maximum as they were the most conveniently available respondents.

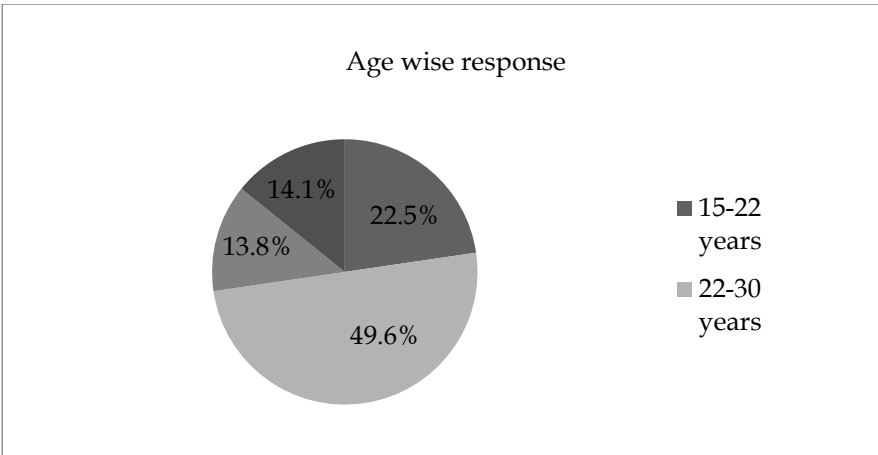


Fig. 3: Distribution of respondents in each age category

With the increase in the age category, the respondents opted not to buy just looking at the package. Only 18% of people in the aged category of 46-55 years opted yes for the same while 44% of the people in the age category of 15-22 years also opted yes.

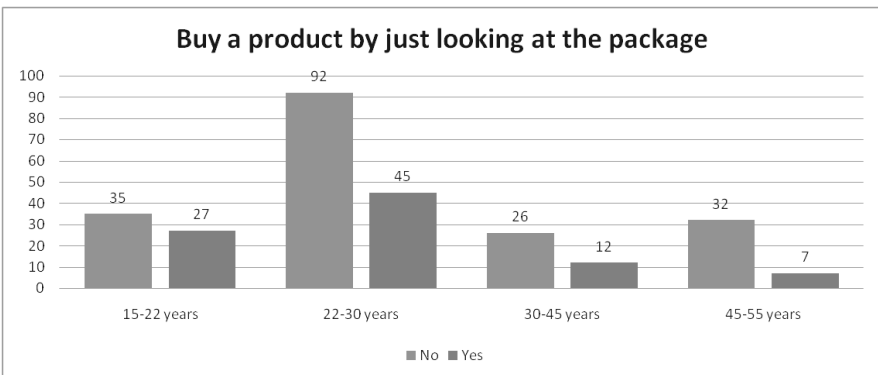


Fig. 4: Distribution of respondents buying by just looking at the package



44% of the people in the age category of 15-22 years opted to buy products by just looking at the product, 33% in 23-30 years age category opted for the same along with 32% and 18% in 31-45 and 46-55 years category respectively. With the increase in the age category, the respondents have opted to not buy by just looking at the package.

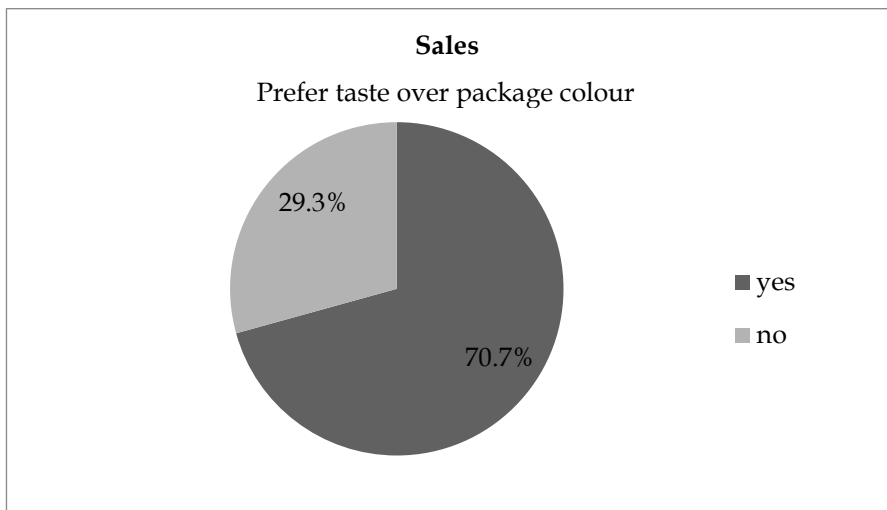


Fig. 5: Distribution of respondents that prefer taste over package colour

On the whole, 70.7% of the respondents opted to buy a product if its taste was good even if it had a bad packaging design. Only 29.3% preferred colour over taste. Taste brings in the condition that the product has already been bought and tasted before.

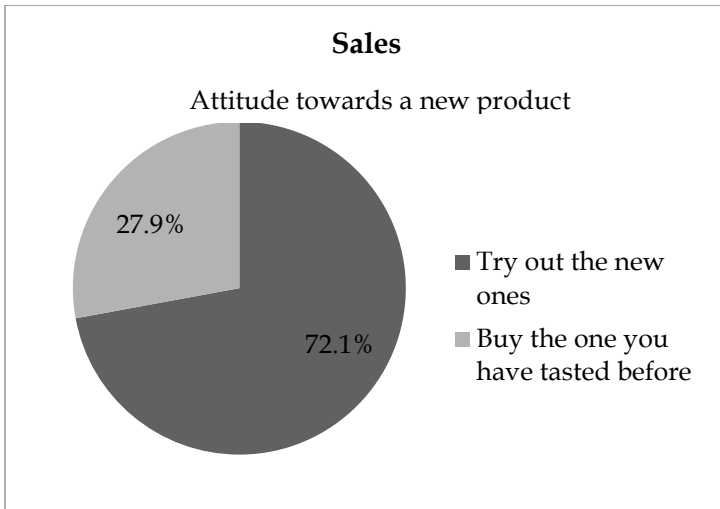


Fig. 6: Distribution of people for those agreeing to try out a new product

People in the age categories, 15-22, 23-30 and 31-45 and 46 to 55 years, majorly opted for trying out newly launched products even though they have their favourite brand close by.

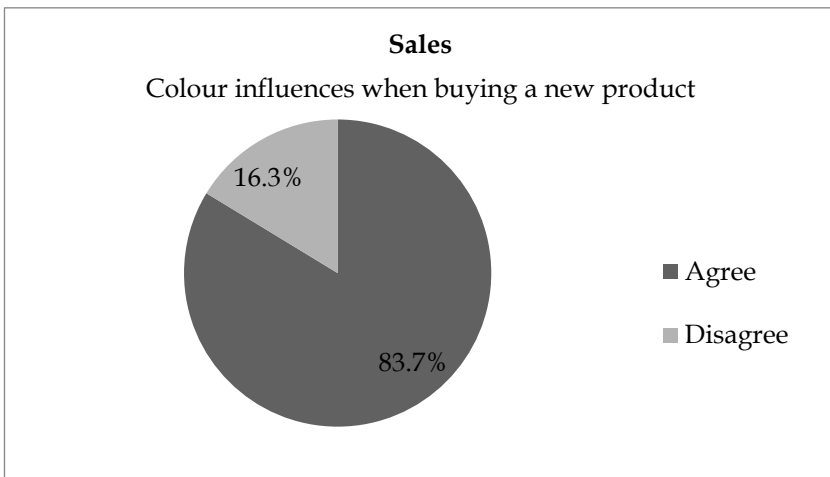


Fig. 7: Distribution of people getting influenced by package colour and design of the product

A whopping 83.7% of people agreed that colour influences them when they buy a new product. This proved the hypothesis that colour plays a significant role in purchasing a new product.

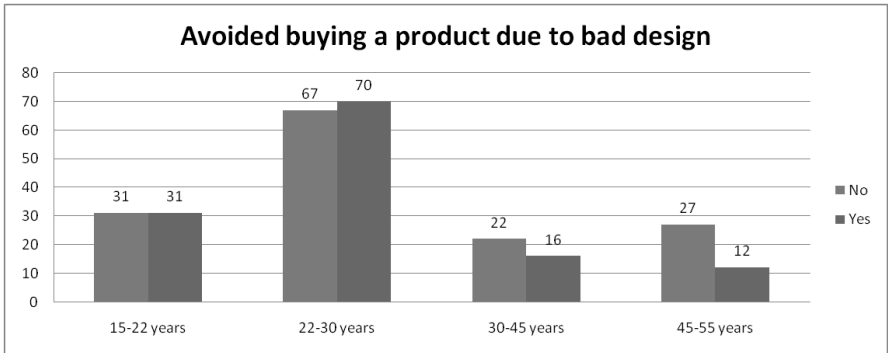


Fig. 8: Distribution of people in the 15-22 years age category avoiding a product because of a bad package colour

While 49% of people in the 15-22 and 51% in the 31-45 years age category have stated that they have avoided buying products just because they didn't like the colour of the package. 42% of the people in the 31-45 years age category have agreed that they have avoided buying a product just because of bad package colour and design. Only 31% of people in the 46-55 age category have avoided buying just because the colour of the package was terrible.

6. Which biscuit colour did you notice first?

276 responses

Biscuit colour noticed first

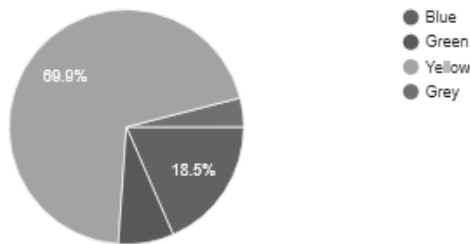


Fig. 9: Distribution of people attracted by given colours

The most attractive package colour was yellow (69.9%), followed by blue, green and grey. This confirmed our hypotheses that warm colours are more attractive than cool colours.

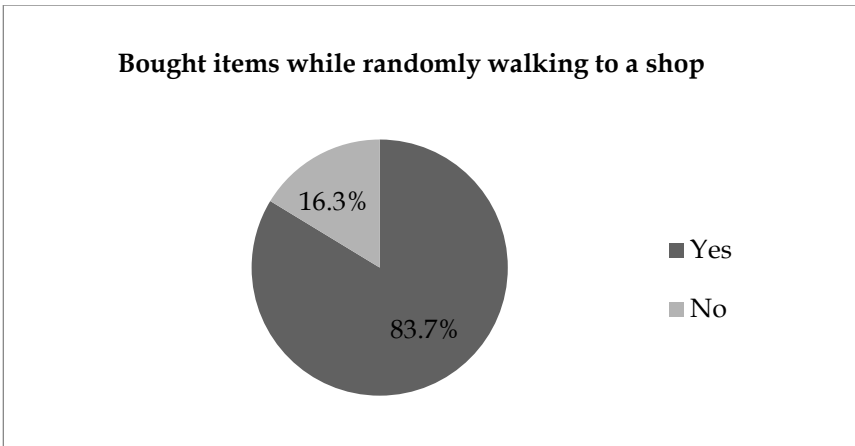


Fig. 10: Distribution of impulsive buyers

The pattern of impulse buying was seen in 83.7% of the respondents. Majority of the people make purchase decisions by just looking at the colour or design of the package.

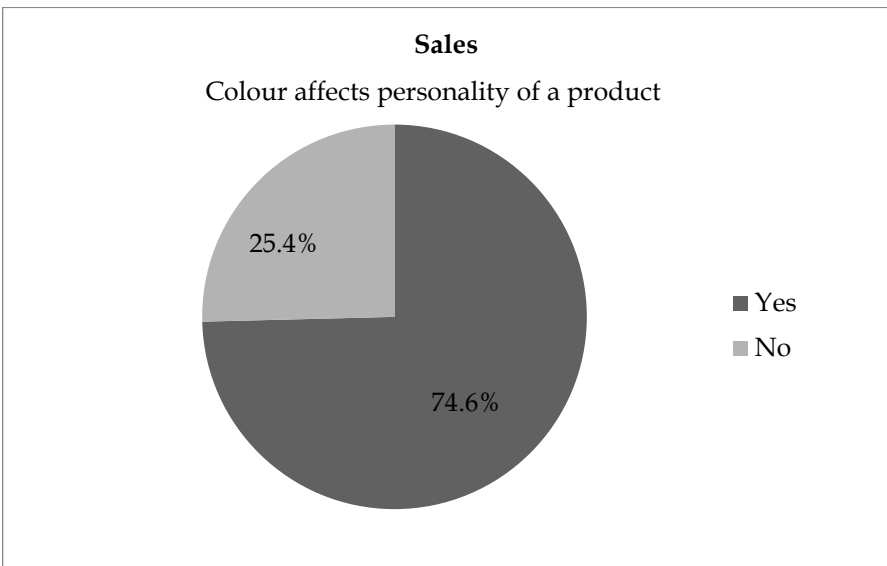


Fig. 11: Distribution of people who think the colour affects the personality of the product

The personality of a product is affected by the colour of the product according to 74.6% of the respondents.

7. Rate the importance of factors, which you consider when you buy a product

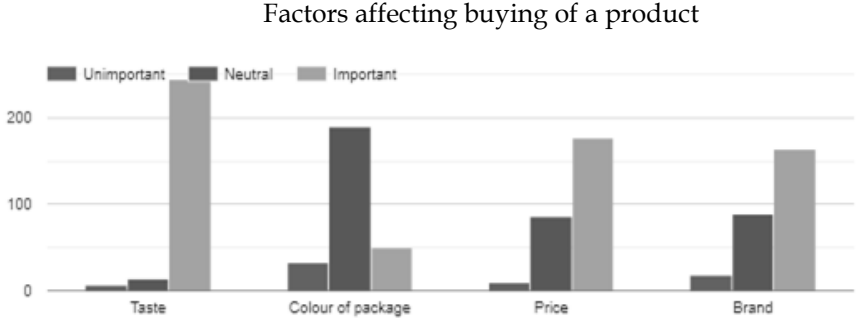





Fig. 12 Distribution of people rating different factors for buying

Considering the factors which were important to people while buying a product, out of 276 respondents, 190 of them have chosen colour as a neutral factor, and 51 of them have chosen colour as an important factor and 33 of them as unimportant. Considering each age category, people have chosen neutral the most. Price was considered the most important, especially in the 46-55 age category.

Different respondents in various age categories chose different colour palettes.

Options for colour preferences provided in the questionnaire were:

- Option 1 Pastel shades of light blue, peach, green 
- Option 2 Monotone colours Black, Light Grey, Grey 
- Option 3 Yellow, Red, Purple 

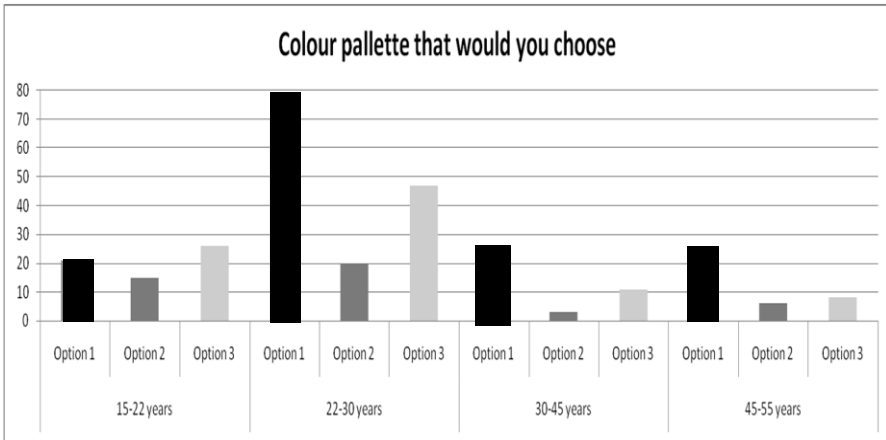


Fig. 13: Distribution of people of different age categories choosing different options

In the 15-22 age category, people were more open to all colours and opt option three as the most preferred. In 23-30 age category people opted more for option 1 and less for option 3. For all age groups other than 15-22 people opted for option 3 more than option 1. Pastel colours are more preferred than bright colours in these age categories.

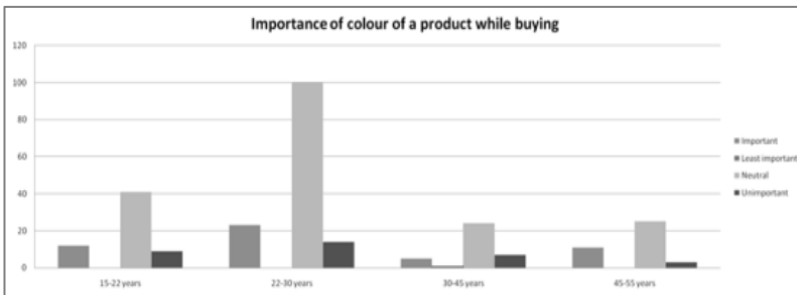


Fig. 14: Distribution of people of different age categories rating how important colour is while buying a product

The distribution above shows that people in the age category of 22 to 30 years are the most concerned about colour while buying the product.

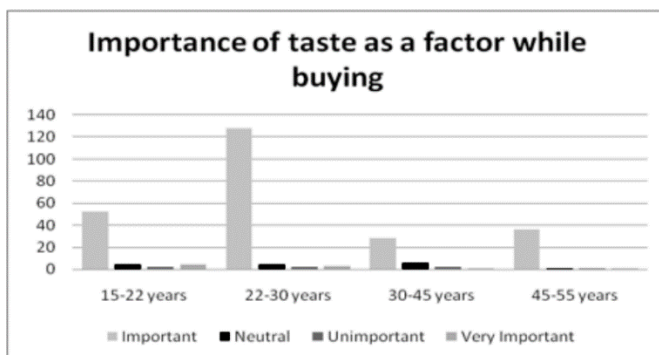


Fig. 15: Age-wise rating of importance of taste in purchase

In all age categories, respondents consider taste as a crucial factor while buying a product. Hence, the taste is an important factor and which affirms our research so far.

## 5. Findings and Managerial Implications

Most consumers are open to buying and trying out new products that are launched in the market. Even though the consumers buy these products if the taste of the product is bad the chances that they repurchase it because of the colour of these package is less.

Shades of yellow or warm colours and more attractive than green, blue or cool colours. Shades of black are not attractive enough as a packaging colour for biscuits, cakes, confectionaries etc.

For age categories below 22 years, vibrant colours consisting of purple, yellow, red etc. are more likely to attract consumers and urge them to try the product, and pastel shades are more prone to influence older age categories.

Consumers belonging to 23 to 30 years of age comparatively consider colour as a major factor for buying, as chances are high for such people to avoid buying products because of bad packaging colour. Also, as the age increases people stop considering colour as the major factor altogether.

Out of 276 respondents, 241 consumers consider colour important while buying a product. Hence, most of the consumers can be influenced by right packaging colours.

Colour alone is not a factor for buying products repeatedly. After taste, price is the most important factor considered by consumers. Since FMCG products are cheap and face a stiff competition with fellow brands, if a new product is launched with good taste and comparative prices to the competitors with good colours, chances are more that it becomes a successful product.

## **6. Discussions**

In the studies done so far, warm colours were considered more appealing than cool colours. The colour of a product determined the personality of the product and encouraged people to buy the product. Different age groups prefer a different colour of product packages.

With this research, findings show that colour alone is not a sole factor in buying a product. While buying a new product, colour definitely is a vital factor. But once the taste is not up to the required standards, consumers do not repurchase them. For products designed for younger people, brighter colours tend to attract them and middle and old aged are more attracted towards pastel or subtle colours. An FMCG product (biscuits, cakes, chocolates, etc.) launched with good colour package mainly bright colours (warm tones) and good taste with comparative prices to its fellow brands would perform well in the market.

## **7. Limitations**

In this research, we have not considered price as a variable. The analyses were done on FMCG goods which are considerably cheap, and the price variations between brands are slight. Hence, the price as a factor influencing buying preferences of FMCG products was omitted.



## 8. Conclusion

Colour plays an important role while buying a new product. Packages of each product must talk about its taste and feel and must cater to the particular age group it targets. Taste being one of the major factors in influencing people to buy, the intuition with which they pick the product from the shelf to try it out is where colour plays a significant role. If brands want their product to stand out in the market and invoke appetizing emotions for the same, it must be designed in bright and catchy colours and subtle for middle and old aged. The packaging industry, by applying these key principles, can design aesthetic packages and increase sales for brands as the package of a product is a silent salesman.

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