

The Impact of the Colour of the Packaging Influencing the Buyer's Purchase Intent



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Abstract: Packaging plays an indispensable role in the sales of a product, whether it is a consumer good or an electronic product. Apart from its predominant purpose of contributing better housing and fortification to its contents, packaging today largely deals with attracting buyers towards the product and communicating the product's message to the buyer, while trying to stand out next to a number of other competing products which serve the same purpose. The colour of packaging has by far the most paramount role in attracting the consumer. In this study, we analyse visual cues and feelings of the consumer after they look at a package of a specific colour, which in our case is a soap and also study the impact of price hike on the purchase intent of the buyer.

Keywords: Colour, Price, Freshness, Impulsive Buying, Perceived Product.

I. INTRODUCTION

Packaging is a 15,000 year old concept which has been in the limelight from the past 200 years and has been used extensively for aesthetic purposes. The first thing a consumer notices as he enters the market is the packaging. Packaging has become an essential and a very crucial factor in the supply chain industry, opening a new market of its own. Packaging promotes feelings and emotions and in some scenarios bring out nostalgia and promote old memories (Bo Rundh, 2016). Packaging technology plays the most pivotal role in the overall likelihood of the buyer/consumer (PinyaSilayoi, 2007) and we can unquestionably agree that a structured and wellorganized package design has very high customer engrossment, appeal and certainly attracts more attention towards it (Alex Gofman and Howard R. Moskowitz 2010). A visual package design has the most impact on the sales of the product. Yet, factors like age, gender, income substantially influence the sales of the product as well (Mohammed Z. Salem, 2018).

Appropriate material, shape, design and haptics of the packaging have a positive impact on the perceived fitting or the usability of the product. Also the usability perception of the product has a positive impact on impulse buying (Manijeh Bahrainizad, 2017).

In supporting the above statement, glossiness of the packaging has a strong impact on the perceived haptics of the product which result in impulse buying of the product (Gwenaëlle Briand Decré, 2018). A packaging needs to have all the necessary information on it to inform the consumer about its contents (HanneleKauppinen, 2010).

“Visual Complexity” (intricacy of an image) is another phenomenon affecting the purchase intention, due to the scarce attention span and time pressure faced by the buyers. But this can be eliminated by the symmetric disposition of package contents on a vertical axis which not only increases the aesthetic evaluation of vertical products but also makes message/information communication even more fluent (Arnaud Bigoin-Gagnan, 2018). Complexity in package design certainly has a negative impact on purchase intention (LiseMagnier and Dominique Crié, 2015). Similarly over packaging of a product can lead to a negative impact on perceived quality and convenience. But eliminating over packaging of non-branded can have negative impact perceived quality which can have a negative impact on purchase intent. Hence it is advisable to maintain a balance in packaging (Elisa mommont, 2014). Addition to this, older adults not only face physical problems while opening an over packaged product but also experience frustration, confusion, and feelings of dependency and alienation (Lynn Sudbury-Riley, 2013). Colour of packaging is the most important factor in attracting the consumer's attention. Overtime humans have developed a response to certain types of colours and if these responses and be accurately used while deciding the colour of the packaging, there will be a positive influence in purchase intent (Justin Beneke, Ozayr Mathews, TravysMunthre and KavesanPillay, 2015). Colour of packaging attracts attention, creates an aesthetic experience for the buyer and makes it convenient for communication of necessary information (Hannele Kauppinen-Rasanen, 2010). Colours communicate with our subconscious and connect a certain events, feelings and memories associated with that colour. Colours similar to cool colours like blue are perceived to be cold and hence they suppress appetite, warm colours like orange and red increase appetite. Strong colours like Red also trigger visual cues like danger and fire (HanneleKauppinen-Räisänen, 2018). Visual appeal and aesthetics are the most important attributes of package design, product colour influences the buyer's attitude towards the product (Klaus-Peter Wiedmann, 2018). Colours also create a sign-object-relationship where a certain colour relates to a certain function which further relates to a certain ingredient. For instance a red packaging can be related to the word spicy (HanneleKauppinen-Räisänen, 2018).

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Similarly Islamic symbols present on the packaging have a positive impact on the purchase intent of food items (Mohsen Akbari, 2015). Different colours have been associated with different visual cues, feelings and emotions for different regions and countries. For instance, the purchase intent of buying a sore throat medicine solely based on colour was observed to be different in USA and that of Ghana (HanneleKauppinen, 2012). Colours also influence memory recall and positively contribute in brand recognition as shown in Nora Bezzaz's study (2014) where children belonging to the age group (7-12) showed positive behaviour in brand recognition when they were shown a chromatic packaged material compared to an a chromatic (grey) packaged material. Children are also more susceptible to remember the brand name of a product shown in colour in a TV commercial compared to being shown in greyscale. Colour of packaging also influences the product preferences of children as children are more likely to buy boxes of cereal with the picture of a cartoon character on it compared to not having one without knowing details about the contents inside. Similarly children are more likely to buy an attractive box of yogurt when compared with a place box of yogurt only because of the colourful and attractive package design (Ike-ElechiOgba and Rebecca Johnson, 2009). Similarly different package shapes, such as a strawberry shaped package also attracts children creating a conflict of interest between the buyers and their children. Hence the purchasing decision of the buyer is affected if he/she has his child along with them at the supermarket as children are only affected by the colour of packaging and its different shapes and hence their pester power affects the purchasing decision of the buyer (Mahsa-Sadat Taghavi, 2015). The colour of package seems to create an image of the colour and taste of the product inside. Children preferred red coloured packages when compared to blue or green coloured packages as red coloured packages seemed sweeter (Pascale Ezan 2017).

Hence we hypothesize that

- Hypothesis 1. Package colour has a positive attitude towards perceiving the product.
- Hypothesis 2. Bright coloured packaged soaps have a "more refreshing" feeling.
- Hypothesis 3. Solid coloured packaged soaps bring out an "intense" feeling in the buyer.
- Hypothesis 4. Buyer's "negative feelings" due to achromatic coloured packaged products can be suppressed if the product price is set high.

METHODOLOGY

Subjects

We surveyed n=32 people from different age groups. We cleaned our data by categorizing the number of people into 3 different classes. Where class 1 had people ranging from the age group of 16-25. Which meant that they were either students or just had started working. Hence their decisions would be heavily influenced by their parents or peers and their main concern towards the product would be the price. Class 2 had people ranging from the age (26-50) hence we assumed that were financially free and could make their own choices and decisions, and price would not be the dominating factor in the purchase intent. Class 3 had people ranging from ages (51-80).

Study Stimulus

In this study we used different types of soap packaging which were available in the market. The reason was choosing soap was because it is a daily essential item and has only a few replacement options such as a bodywash liquid. We also assumed that class 2 and 3 would prefer traditional soap compared to bodywash liquid. In this study we asked the participants to report their attitude and feelings towards the product packaging visuals and how they perceived colours by asking them if they found a certain colour "refreshing" or "intense". We also asked the participants if they did come to the supermarket with a list of items as having a list of items might suppress impulsive buying nature. We also checked if a hike in the price of a product had a positive impact towards perceiving the product. All mathematical calculations were done using the SPSS software

RESULTS AND ANALYSIS

Data analysis was carried out in the following stages:

1. The first phase examined the hypothesis H1 using Modal Analysis and Pearson's Correlation
2. The second phase examined the hypothesis H2 using Pearson's Correlation
3. The third phase examined the hypothesis H3 using Pearson's Correlation
4. The fourth phase examined the hypothesis H4 using Wilcoxon's Rank Sum Test

In order to check if colour of packaging does generate a visual cue in the buyer's mind we conducted a survey in which we asked our subjects to rate a certain colour on the basis of its "freshness" from (1-5) and on the basis of its "intense feeling". 5 being the most fresh or intense and 1 being the least fresh or intense.

A correlation analysis was taken place as shown in Table I where colours Light Blue = 150, Light Green = 250 and Red = 350 (150, 250 and 350 are the assumed wavelengths of these colours for ease of calculation) were shown to our study and they were asked to rank these three colours on the basis of how intense would they feel if they saw this colour on their preferred bathing soap. There was a positive correlation observed where there is a significant positive relationship between Colour (COLOUR1) and Intense feeling (INTENSE), $r(94) = .723$, $p = .000$, Correlation is significant at 0.01 level (2-tailed)

Furthermore we conduct a modal analysis when we our study was asked to choose the most intense colour out of the three where 65.6% of the population preferred the colour Red, 18.8% of the population preferred the colour Light Blue and 15.6% of the population preferred the colour Light Green is shown in Table II. A graphical representation (G1) shows that the most preferred colour is Red and gives out an intense feeling hence supporting H3 and also supporting H1.

Insert Table 1 about here

Insert Table 2 about here

Insert Figure 1 about here

We also saw a negative correlation between refreshness and colours Light blue = 100, Brown = 200, and Red = 300 (100, 200, and 300 are assumed wavelengths for the ease of calculation) where there is a significant negative relationship between Colour (COLOUR2) and Refreshness feeling (REF), $r(94) = -.649, p = .000$, Correlation is significant at 0.01 level (2-tailed)

Insert Table 3 about here

Furthermore we conduct a modal analysis when we our study was asked to choose the most refreshing colour out of the three where 59.4% of the population preferred the Colour Light Blue, 28.1% of the population preferred the colour Brown and 12.5% of the population preferred the colour Red as shown in Table hence supporting H2 and H1

Insert Table 4 about here

Insert Figure 2 about here

To check if changing the price of an achromatic colour packaging can affect the purchase intent of the buyer we first checked by conducting a modal analysis between the colour (C3) Grey and Yellow , Grey being an achromatic colour was chosen only by 34.4% of the population and the remaining 65.6% preferred the colour Yellow as shown in Table V.

Insert Table 5 about here

After we conducted a Wilcoxon Signed Rank Test between (C3) and (PRICE), where (PRICE) being the colour choice of the soap after setting the price of the achromatic coloured soap packaging to 120Rs and yellow coloured soap packaging to 20Rs we noticed that 15 out of the population changed their product preference from yellow to grey after noticing the change in price, 5 people changed their product preference from grey to yellow and 12 people did not change their choice even after the change in price was noticed as shown in Table VI hence supporting H4

Insert Table 6 about here

DISCUSSION AND CONCLUSION

Theoretical implications

These findings provide an insight to the influence of colour of packaging on perceiving the product. The results are consistent with previous authors who have supported the claims of Colour acting as a visual medium on perceived product quality (HanneleKauppinen, 2010). This work extends research to the role of colour of packaging to having a direct and positive impact on generating a feeling in the buyer formed through their attitudes towards visual packaging and certain colours. In summary, this study contributes to the literature by increasing the understanding of the colour of a packaging generating the feeling in the buyer and bridges the gap between Consumer Behaviour and Colour of Packaging.

Managerial Implications

Product packaging has been used to communicate with the buyer at the point of purchase. Investigating the effect of colour of packaging on people's perception of

generation of a certain feeling can be used by marketers to their benefit and specifically create packaging colours that not only communicate more effectively with the buyer but also bring out a certain feeling in the buyer. In the current competitive market soap companies should design their products with more and more precision on colour to communicate effectively with the buyer to emphasize factors like the feeling of "freshness" or to have an "intense" feeling generating high brand value and product preference.

In conclusion, we can say that the study conducted on the subjects has given us a positive result meaning that there is a relationship between the colour of packaging and feeling of "freshness" or "intensity". Since we were limited by the number of participants in our survey our results seem translucent but a broader study with a large number of participants might give us a better understanding of the relationship between colour and the feeling generated in the buyer by it.

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TABLE 1
Correlation between colours1 and intense feeling

		COLOUR1	INTENSE
COLOUR1	Pearson Correlation	1	.723**
	Sig. (2-tailed)		.000
	N	96	96
INTENSE	Pearson Correlation	.723**	1
	Sig. (2-tailed)	.000	
	N	96	96

** . Correlation is significant at the 0.01 level (2-tailed).

TABLE 2
Modal analysis of colours1 from the study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LIGHT BLUE	6	18.8	18.8	18.8
	LIGHT GREEN	5	15.6	15.6	34.4
	RED	21	65.6	65.6	100.0
	Total	32	100.0	100.0	

TABLE 3
Correlation between colours2 and fresh feeling

		COLOUR2	REF
COLOUR2	Pearson Correlation	1	-.649**
	Sig. (2-tailed)		.000
	N	96	96
REF	Pearson Correlation	-.649**	1
	Sig. (2-tailed)	.000	
	N	96	96

** . Correlation is significant at the 0.01 level (2-tailed).

TABLE 4
Modal analysis of colours2 from the study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LIGHT BLUE	19	59.4	59.4	59.4
	BROWN	9	28.1	28.1	87.5
	RED	4	12.5	12.5	100.0
	Total	32	100.0	100.0	

TABLE 5
Modal analysis between Grey and Yellow

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GREY	11	34.4	34.4	34.4
	YELLOW	21	65.6	65.6	100.0
	Total	32	100.0	100.0	

TABLE 6
Wilcoxon Signed Rank Test between Yellow and Grey coloured soaps after change of price

		N	Mean Rank	Sum of Ranks
PRICE - C3	Negative Ranks	15 ^a	10.50	157.50
	Positive Ranks	5 ^b	10.50	52.50
	Ties	12 ^c		
	Total	32		

- a. PRICE < C3
- b. PRICE > C3
- c. PRICE = C

FIGURE 1
Model analysis of set 1

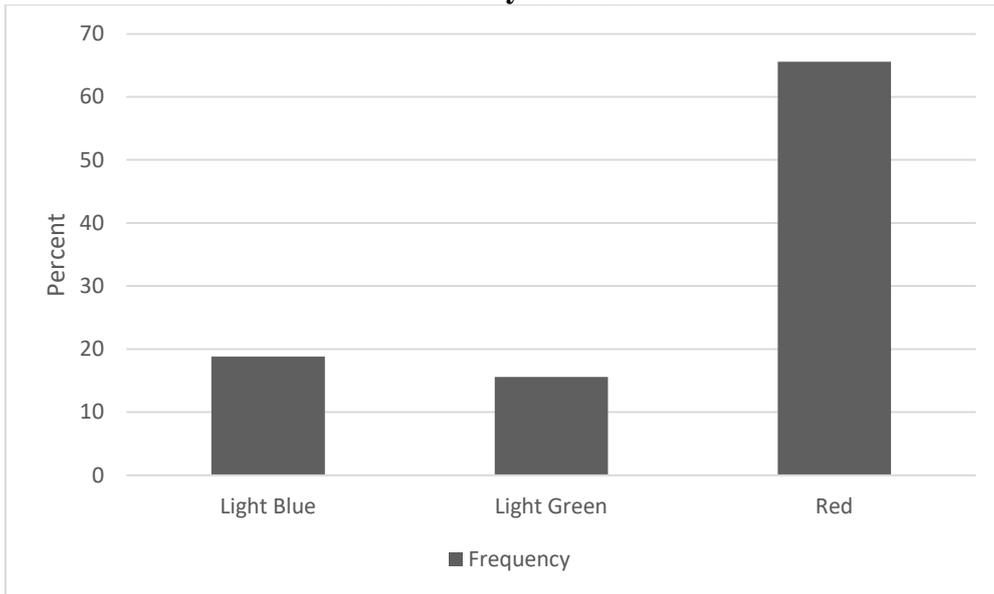


FIGURE 2
Model analysis of set 2

