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Emotion and colour perception: A psychoanalytical theory of graphic design in consumer of goods

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The study focuses on the psychological theory of colour in graphic design on the advertisement of consumer goods. The specific objectives identify the impact of colour perception and emotion as it psychologically affects and influences the behaviour of consumers in purchasing the products advertised. Descriptive research study, that is, employing qualitative methodology was used to address the study and it adopted survey design method to investigate the activities of the respondents (the consumers) that emotion and colour have impacts on their purchasing behaviour. The population for consumers is infinite and outside the limit of manageable size. Yamane’s formula which stated that a finite population consists of a fixed number of elements that can be easily counted, while an infinite population on the other hand is where a complete count of all element or subject that makes up the population cannot possibly be counted was therefore adopted to determine the sample size of three hundred and eighty-five (385). Random sampling method was used in administration of the questionnaire and structured questionnaire was used to collect demographic information about the respondents and elicited responses from the respondents on issues raised in research questions and the objectives of the research. Frequency and percentage distribution were used to analyse the background information of the respondents and some of the issues addressed in the questionnaire. The result of the analysis established that colour value and emotional theory stimulate and energize consumers, and that it creates acceptance, admiration, affection and psychologically served as powerful market tools. A consumer Colour Perception Purchasing Behaviour Model was proposed based on the result.

Key words: Psychoanalytical, emotion, colour value, consumer, theory, graphics.

INTRODUCTION

Colour and psychoanalytical theory are the foundation of design in graphics which over the years have provided a framework for discussion in consumer of goods. In the design process, colour theory guides the design of consumers’ products and it has been the key determinant of consumers in buying of products. Emotional theory of colour value can be termed to be a normative and affective appreciation of goods. That is normative and affective appreciation domain which consists of response to internal and external events which are particular significance for the organism, these are considered to be in duration and consist of a coordinated set of...
responses, which may include aesthetics, physiology, behaviour psychology, and creation of awareness for beauty. Human beings are emotional creatures and as such, great importance is placed on the use of colour in the advertisement of consumers’ goods and products packaging. Colour communicates brand personality through many elements and principles of designs, which include combination of brand logo, coloured packaging fonts, pictures, shapes, lines, textures and other elements of graphic design. Emotion and colour value arises when a consumer have a positive aesthetic experiences. This experience is associated with stimulating, invigorating and exhausting of aesthetic values in the colour of goods advertised to the consumers. As a result, different emotional value of colour in graphic design correlates with different aesthetic preferences in consumers of goods (Bagozzi et al., 1999).

In today’s competitive and contemporary market, colour value and designs are used extensively in advertisement to communicate specific messages to the consumers of goods. The success of an advertisement is measured by how well the message is conveyed through graphic visuals. In the ancient and medieval times, advertisement of consumer goods was verbal in nature and it involved town criers, hawking, placement of handbills on walls and doors of houses and other traditional systems. Some of these communication systems lack colour value and emotion because most of the information are in black and white which cannot create fast psychological effect on the consumers. The first emotional breakthrough in modern advertisement came with the development of market strategies in advertising of products; the focus was primarily on customers and the strategies were in two folds. The theory which categorizes the two folds distinguished the first as creation of awareness, interest and desire among consumers through colour and emotion, which ultimately entice them from their current brands. Second, advertising reminds existing customers of the brand’s presence, and thus reinforces their belief in the use of product (Ewing et al., 2002). Vakratsas and Ambler (1999) researched into how advertising works have exposed vast chasms in the body of advertising theory.

These lead scholars and practitioners to rethink the role of advertising in the 21st century. Of particular interest in the present context is advertising’s potential to communicate to non customer audiences. Of course, advertisers have always had the option of targeting messages at a diverse range of individual or multiple stakeholder groups. In practice, however, the desire to reach customers, in particular potential new users, has dominated both creative and media planning strategies (Oladumiye, 2012).

These became increasingly important to marketing of consumers’ goods and industrial goods Advertisement can be in print and electronic media. The print makes use of media that deliver messages once at a time, while electronic media make use of sound, motion and text messages with colours. The emotional value of colour in graphic design on goods advertisement in prints and electronic media can be described as therapeutic. This is because it creates an affective or friendly response on the consumers who are enticed to like the product advertised in print and electronic media. The channels of message presentation through graphics media are reading, listening and viewing, and the messages are found virtually in every product package in retail outlets as well as illustrated texts in colours. Advertisement serves as a tool for expressing ideas to the public, thereby creating a demand for products that call for public audience and attention. These function as the engine room for emotional sensitization, and thereby facilitating awareness on the availability of finished products from the factory to the consumers. As a result, graphics design provides the necessary parameters such as typography, illustrations and other visuals needed in consumer products advertisement (Oladumiye, 2016).

**LITERATURE REVIEW**

**Effective role of colour principles and elements of graphic design in consumer goods**

Literature revealed that colour value is of the elements and principles of design which are the building blocks used to create a work of design in consumer goods, and can be thought of as the basic principles that make up designs in consumer goods. These principles also govern the relationships of the elements used to organise the composition of adverts. Successful advertisements of consumer goods incorporate the use of principles and elements of design to serve the designer’s purpose and visual goals. There are no rules for the designer’s purpose and intent drives, and the decisions made to achieve appropriate scale and proportion as well as the degree of harmony between the elements. Colour values are technical, artificial and emotional methods for the production of any design be it industrial design, textile ceramics, interior designs and advertisements designs (Anderson et al., 2015). These principles of design are varied with regards to modern designs. They are the concepts used to organise or arrange the structural elements of design in consumer goods advertisement, which invariably lead to the emotional communication of ideals to consumers. For a printed matter to be attractive in design, it has to be attractive to the consumers, easy to read and usually must have a
lasting effect on the reader (Walker, 1992). However, elements and principles of design are pictures that are seen in colour and understood by consumers. They stand for certain ideals and concepts which are accepted by the appropriate audience or consumers, such colour value is usually more effective in advertisement. An example is sunray colour embellishments as shown in Figure 1.

Sunray pattern is formed from coloured lines of one of the elements of design and principles. Coloured lines could be regarded as the first and simplest elements of design. They could be thin, thick, horizontal and vertical. The use of coloured sunray is common with visuals used in advertisement of consumer goods. Consumers love to see different types of colour in advertisement because it facilitates and arouses their emotion and interest. Coloured lines could be used to express movement, both in the obvious sense or showing objects in motion aesthetically, by acquiring autonomous movement on its own. For instance, a continuous colour line, drawn in various directions gives the feeling of movement in consumer goods advertisement in print and electronic media. A properly organised colour showing regular repetition of shapes could arouse emotional feelings in the mind of consumers in electronics media advertisements. This simply means that colour values are powerful weapons in the hands of graphic designers in revealing the thoughts and feelings of consumer of goods advertised. Colour as linear expressions in advertisement, are found in posters and billboards of different categories (Walker, 1992; Jacob, 2009; Silvia, 2015).

Figures 2 and 3, flowing lines of colour is usually found tucked in the background of design or at very
forefront of the design in consumer goods advertisement it is a form of line of different categories; thin, heavy, thick, wavy, and spherical and zigzag in nature. Flowing straight lines may be emotionally appealing as used in Figure 3.

In Figure 4, black or coloured silhouettes are design elements that are coined out from colour value, which is one of the principles of designs. Colour value is a sensation created in the eye by the breakdown of white light from light waves; colour value, therefore, is a concept that depends on light because human beings cannot identify objects in the dark.

Advertisement of consumer goods depends on colours. Consumers love to buy coloured advertised goods; they prefer advertisements in colour to black and white. Vectorised silhouettes of people are elements and principles of design that can be seen in some of the adverts on billboards and in magazine advertisements. Consumers used to appreciate the colour of the package of products in colour. However, colour value makes the advertisement of consumer goods to be subjective as its existence depends upon sensory apparatus of human beings. Colour is a sensation created in the eyes by the breakdown of white light.
from light waves. Colour is a concept that depends on light (Jacob, 2009; Oladumiye, 2015).

Colour is one of the most expressive elements which arouse universal appreciation in consumer goods advert. Colour plays an important role in the choice of goods and materials advertised by advertisers. It affects mood and emotion in advertisement in print and electronic media. Consumers often appreciate the colour of packages and products, and this could make them to buy on impulse. Colour value makes advertisement linger in man's memory. Colour value in advertisement of product is subjective. It has psychoanalytic principles that strikes man's perception and makes consumers to have a second look at the goods advertised. In the words of Douma (2006) and Jacob (2009), colour adds a new dimension to the environment; it adds excitement and brings joy to the environment. In prosecuting a piece of advertisement, colour combination is the key factor. Thus, it should be operated within a positive tendency field in order to produce some specific perceptual effects. This emphasizes the influence of colour on advertisement of consumer goods. Literature emphasizes that colour influences most strikingly our judgement of temperature, space, time and weight. As such, colour is generally considered the most potent device available to advertising practitioners or graphic designers as an aspect of aesthetic composition (Douma, 2006). Colour enhances advertisements on print and electronic media, and the production of these adverts can be said to be successful or effective only if the choice of colour is carefully made because colour can make or destroy a design, and thereby alter the purpose which the message is meant to serve. In Figure 5, Ink Splatter is also from colour value as an element of design. This is used as textures in designs under the original work.

Smoke coloured textures

This is always in the background of designs. However, texture is an element of design. Coloured textures are the surface feel of an object. It could be actual or simulated. The actual texture has real physical touch value as experienced with embossed paper and mesh surfaces. Also, this is always at the background of most design displayed for consumer goods advertisement. Coloured texture is the feeling and visual feel of the fabrics. There are two types of coloured texture surfaces that are used in advertisement: the visual texture, this is a texture that can be detected by human beings five senses of colour values. Example of this is as shown in Figure 5 (ink splatter and smoke textures). Also, there are textures like grass sheets tucked into design. Texture in advertisement of products is the roughness of the surface of visuals. The role of colour balance in advertisement of consumer goods is to form an equilibrium that results from looking at images and judging them against consumers ideas. Colour balancing is the arrangement of the objects in a given design as it relates to visual weight within a composition of advertisement. Unity as a concept describes the relationships between the individual parts and the whole of a composition in print and electronic media advertisement. Harmony of colour value is a quality that ties the design together. Without it, the design in advertisement will fall apart and the message will be lost (Andrew and Jonathan, 2015).

The psychoanalytical theory of emotion and colour value is widely recognised in the study of consumer goods. Inquiry into determinant of emotion and colour value theory on consumers' response to advertisement has been hindered by the lack of a general theory.
Sources of emotional responses

The appreciation of any consumer advert is basically on the aesthetic value of colour harmony and this deal with mood and emotional response, which in turn deals with behavioural judgement of the consumer. Holbrook and Hirschman (1982) and Derbaix (1995) conducted a research on the effect that emotions have on consumers’ response to advertisement of goods, and the mediating role of emotions on the satisfaction of consumers of goods (Phillips and Baunartner, 2002). In the context of this research, emotion played an important role in the purchasing attitude of each consumer and as such, both consumption emotion and satisfaction judgement occur in the post-purchase period. Emotional response and colour theory deals with consumer’s behavioural satisfaction. Consumers’ satisfaction has been variously defined in the literature, but the conceptualisation that appears to have received the greatest support is the view that satisfaction is a post-choice evaluative judgement concerning a specific purchase selection which is derived from colour values of the product (Fleu et al., 2005; Damasio, 2010). For instance, each consumer of products has feelings and they react to one particular colour. Psychologically, each time they see these colours in any advert they fall in love with the product. Consumers often buy products in the colours that they find most pleasing at the time of purchase and knowing that, firms often rely on colours to appeal emotionally and aesthetically to consumers (Day, 1984; Edell and Burke, 1987).

Colour value and emotional theory stimulates and energises consumers; it creates acceptance, admiration, affection, alert, compassion, concern, elation, empathy, fulfillment, romantic satisfaction, etc., in advertisement of consumer goods. The designers of advertisement must understand the psychology of colour in order to use it effectively. Colour sells products. It is a powerful marketing tool that psychologically influences consumer purchases, so much that it accounts for 95% of the reason why someone may decide to purchase a product (Hemphill, 1996). As a result, marketers must understand the psychology of colour in order to use it effectively (Damasio, 1999).

Psychology and analytical theory of colour and emotion

Over the centuries, designers’ expressions have captured emotion and colour perspective as it affects human perceptions in purchasing. This led to the development of scientific principles of colour perception which began with the studies of colour in the 14th century and led to researches into optics in designs in the 15th century. Advances in technology and physics sparked new forms of designs and art such as Impressionism and Neo-impressionism. Artists and designers such as Van Gogh (1853-1890) and Paul Signat (1863-1935) used modern concept of colour and vision to express more abstract views of life and nature (Anderson et al., 2015).

Psychologically, colour is light, carried on wavelengths absorbed by the eyes that the brain reconverts to colours that we see. Light can be decomposed into a spectrum of six distinct colours: red, orange, yellow, green, blue, and violet. Red has the longest wavelength whereas violet has the shortest. An object appearing yellow absorbs all of the colors in the spectrum except the yellow light. This unabsorbed light is reflected back from the object into the eyes from where it travels to the brain to be interpreted as yellow. The eyes are comprised of cones and rods that allow us to see color and light, respectively. There are three types of cones: type (I) is associated with blue; type (II) with green and type (III), with red (Harrington and Mackie, 1993). Other colours are combination of these three colours.

As a result, psychologists classified colours as warm (red and yellow) and cool (blue and green). However, the distinction between warm and cool colours is relative. For example, when red and yellow are paired, yellow is considered warmer than red. White, black and gray are considered neutral colours. Because colour experiences vary from individual to individual, it is not possible to know how another person experiences colour. One person’s experience of a shade of red can be perceived differently from another person.

Light affects the perception of colours. Whether it is the colour of a product package in a retail store or on shelves in a super market, colours and emotions affect different people in different ways. In the association between colour and emotion, yellow, orange, and blue are seen as happy colours while red, black and brown
are seen as sad colours (Cimbal et al., 1978). Atmospherics such as noises, sizes, shapes, scents and colours could help create attention, convey messages, and create feelings that might increase purchase probability (Kotler, 1973). The effects of such atmospherics have been demonstrated to influence emotional responses and behavioural intentions. These emotional responses and psychological effects can be referred to as happy and sad colour moods (Alpert and Alpert, 1986). Although colour is related to feelings about retail environment (Bellizzi et al., 1983), it also affects distraction (Gerard, 1957) and influences anxiety (Jacobs and Suess, 1975; Damasio, 1999). Nearly all products sold today have colourful facades. Selecting the right colours to use has an enormous impact on product sales. While no single set of rules govern colour choices, research has established general guidelines based on the principle that is associated with learning, and the relationship between colour and emotion. D’Andrade and Egan (1974), Smets (1982), Valdez and Mehrabian (1994), and Gorn et al. (1997) believe that colours’ emotional values are determined primarily with tones or by hue. Example of this is yellow which signifies happy, blue is sad whereas in some nations, blue is love and the strongest determinants are actually saturation and light colours which are similar to white and black. Actually, colour perception is different from culture to culture but the major thing is that the names of the colours remain unchanged. Red, green, blue, etc., remain with their names; the emotional value attached to each may be different from one nation to another.

Research problem

The impacts of colour theory in graphic design messages are not well represented by advertisers and marketers, and majority of the consumers do not seem to believe that colour has a significant role to play in the advertisement of goods, and that colour arouses the emotional and psychological sense of consumers. Researchers such as Hurlbert and Ling (2007) and Palmer and Schloss (2010) have suggested a strong link between colour and preferences of consumers. Hence, for manufacturers to succeed in a competitive and anonymous environment, they have to market both themselves and wares through distinctive colour packaging and other means of graphic design principles (Oladumije, 2012). This study, therefore, established the link between emotions, consumers’ colour perception and consumer behaviour.

Study objectives

The objectives of this study was basically to examine the impact of emotion and colour value as it psychologically affects and influences behavior of consumer of goods in purchasing products advertised.

The following research questions were addressed in this study:

1. Does psychology of colour have significant impact on the advertisement of consumer goods?
2. What is the dimensionality of colour value and psychology value in consumers’ emotional response?
3. Does emotion have impact on colour?

METHODOLOGY

Descriptive research study employing qualitative methodology was used to address the study. All products advertised today have colours that influence their purchase. The study adopted survey design which involved the respondents whom emotion and colour perception have psychological impacts on their behavior in purchasing advertised goods.

Research Instrument

Questionnaire was used for data collection. Questionnaire is suitable for use in a study of this category that deals with qualitative studies. The research instrument in advertisement techniques is the systematic study of human aesthetics, awareness, either as a sender or receiver of an advertisement, and that questionnaire is deemed suitable for use in collecting data about phenomenon that are directly observable in colour advertisements of products (Oladumije et al., 2014).

Data analysis

Appropriate methods of data analysis were necessary to be able to accurately process the data collected from the field. Based on this assertion, frequency and percentage distribution were used to analyze the data collected.

The respondents were 85.0% between 25 and 34 years old. They were young graduates who could think very fast, versatile and adequately exposed to the use of colours in the advertisement of consumer goods.

Sub-Question 1: Does psychology of colour value have significant impact on the advertisement of goods?

The majority of the respondents were between ages 25 and 35 years. 33.6% are females, 66.4% are males and 79.8% of the respondents are below 45 years old. Age 18 to 45 is normally regarded as the most active and productive age in society. 43.6 and 25.0% of the consumer of goods, respectively agreed and strongly agreed that colour theory and psychology have significant effects and influence on consumer goods, and that products advertised in print and electronic media are through the manipulations of the colour used on the packaging of the products. This opinion constitutes the majority because the percentage adds up to about 68.6%. On the other hand, 14.3 and 3.2%, respectively disagreed and strongly disagreed, and 13.3% of
the respondents were undecided on the effects of colour theory and psychological effect of colour and packages in consumer advertisement of goods. According to Stach (1883), Collier (1967), Andren et al. (1978), Satyendra (2006), Karen and Stephen (2011), colour attracts attention more than black and white. The data gathered showed that the audience or consumers responded better to colour advertisement than black and white.

Sub-Question 2: What is the value of colour and psychology on consumers’ emotional response?

The psychoanalytical theory of the consumers’ behaviour of colour value and emotional response as far as this chart is concerned is that the consumers’ emotional behaviour and reaction dimensionally has been defined earlier in this study, but the conceptualization that appears to have received a great support is the view that colour communicates and establishes brand recognition, and this triggers emotion in the consumers. Emotion and psychology are important factors in advertising of consumer goods.

Strong (1925) opined that emotional reaction occurred only after consumer of goods had experienced interest for advertisement psychologically. Also, emotional states influence preference for colours that have either congruent or incongruent emotional tones. The respondents believe that colour value and emotional response in psychoanalytical theory of emotion arouses some emotional response in the consumer of goods. The result shows that 60 and 12.1% of the respondents agreed and strongly agreed that colour theory and emotional value works together and the advertisers of consumer goods believe that advertisement in colours have psychological effect on the consumers. Colours arouse interest, love, affection, likeness, etc. psychologically in consumers of goods advertised. 11.8 and 1.8% of the respondents disagreed and strongly disagreed, respectively, while 14.3% of the respondents were undecided.

Sub-Question 3: Does emotional value theory have impact on colour and colour over emotions of consumers of goods

The two concepts work hand in hand: emotional value has impact on colour, and colour has impact on emotional value.

Since the beginning, colours have been the most existing things in the world. Colours have stunned man’s emotion and colour was a precious tool in the hands of Paleolithic designers and artist. For instance, during the first civilization, gold was used to represent the power of the sun because of its shining effects, and it attracts the attention of human beings. Colour psychologically was definitely arresting the attention of the whole world, and as a result, it has impacts on emotion. Man reacts to the warmness, coldness or brightness and darkness of colours. So also, emotion has the power to trigger man towards his immediate environment. As such, emotion and colour in consumer goods works together.

Chart 3 of this study specifies that 45.4 and 9.0% of the consumers respond, respectively. They were of the opinion that colour and emotion have impact on one another as far as consumers of goods are concerned. 23.9 and 9.8% disagreed and strongly disagreed, while 12.9% were undecided on these points.

This study appraised the current degree of emotion and colour value in psychoanalytical theory of graphics design in consumer of goods. Emotion and colour work together in the purchasing of goods advertised. So also, psychology plays a serious role in emotion of value.

FINDINGS

The study revealed that emotion and colour value arise when a consumer has positive aesthetic experiences psychologically. This explanation is associated with stimulating, invigorating and exhausting of aesthetic values in the colour of goods packaged.

The work of graphics designer usually stimulates the psychological value of consumers. 43.6 and 25.0% of the consumer of goods respectively agreed and strongly agreed that colour theory and psychology have significant effect and influence on them. This opinion constitutes the majority because the percentage added up was 60%, while 14.6 and 3.2% disagreed and strongly disagreed to this opinion.

The result of the analysis of the value of colour and psychology in consumers of goods revealed that 60% of the respondents agreed and strongly agreed that value of colour and psychology theory have effect on the consumers of goods, and the opinion is that emotional value and colour have impact on them.

It is clearly revealed in the study that emotion and colour value in psychoanalytical theory of graphics design in consumers of goods in print and electronic media has the power and ability to transcend cultural meaning in advertisement of goods. As a result, the role of colour in consumer goods advertisement in the competitive market are the building blocks used to create a work of design in consumer goods. The principle of design in this study is seen as the element used to organize the composition of adverts and the successful advertisements make use of colour as one of the elements of design that will trigger the consumer psychoanalytic and emotional value.

DISCUSSION

This study investigates how graphic design messages and colour emotion influence the consumers and the meaning they communicate to audience psychologically. Based on literature review, this study concluded that despite the different ways to measure emotions, positive and negative effects are frequently employed as general emotion dimensions. Therefore, this study proposes the Colour Perception-Purchasing Behaviour model (Figures 6 and 7). The positivity or the negativity of the perception of a consumer’s emotional or aesthetic response to colour depends on the perception of the consumer himself. However, this study believes that the positivity or negativity of the eventual buying behaviour of the consumer may be subject to other researable factors such as the previous mood of the
consumer prior to exposure to advertised goods, brand loyalty or disloyalty and addictive habits.

**Colour perception-purchasing behaviour model**

This model proposes that consumers’ colour perception, which is subject to colour value and emotional theory, yields corresponding emotional and aesthetic responses. These responses depend on whether the consumer’s perception, at the time of exposure to advertising stimuli or consumer product, is positive or negative. For instance, positive perceptions yield positive emotional and aesthetic responses. It stimulates acceptance,
admiration and affection. This in turn produces favorable purchasing behaviour which results in higher product marketability and vice versa. On the other hand, negative colour perceptions will therefore stimulate negative emotional responses which will result in unfavourable purchasing behaviour. This will in turn reduce product marketability. Colours influence emotions and vice versa.

Colour value and emotional theory stimulates and energizes consumers. It creates acceptance, admiration, affection and serves as powerful market tools. This paper, therefore, spoke about colours and their keys to design. As reddish-brown sepia tones refer to past and tradition, navy-blue combinations are associated with dynamism, while black and white in equal amounts give deeper expression to each other in advertisements of consumer goods. The simplest set of colours expresses thoughts without words and influences audiences. The choice of these colours should reflect the brand mission with strength and clarity, so that it can attract prospective customers. Consumers' satisfaction has been variously defined in literature that they react to colours emotionally through the hue or tone of the colour. For example, warm colours impacted users to take action, while cold shades have a cooling effect. Red spot on a light background is expressive, but when placed on a cold one, it is almost hot. The stronger the contrast of colours, the more powerful the message, and surprisingly, many successful advertisements have broken colourful rules.

The designer's role is to build clear and understandable communication through the impact of colour. The fewer hues used in a composition, the easier the whole thing is to remember. Select two to three key colours and your message will be retained easier and longer in the minds of the consumers of goods advertised in colours.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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