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# The psychological effect of choosing colors in advertisements on stimulating human interaction



Zainab A. Awad <sup>a</sup>, Mariam A. Eida <sup>a</sup>, Hasnaa S. Soliman <sup>a</sup>, Menna A. Alkaramani <sup>a</sup>, Iman G. Elbadwy <sup>a</sup>, and Ahmed G. Hassabo <sup>b</sup>\*

<sup>a</sup> Benha University, Faculty of Applied Arts, Advertising, Printing and Publishing Department, Benha, Egypt <sup>b</sup> National Research Centre (Scopus affiliation ID 60014618), Textile Research and Technology Institute, Pretreatment, and Finishing of Cellulose-based Textiles Department, 33 El-Behouth St. (former El-Tahrir str.), Dokki, P.O 12622, Giza, Egypt

#### Abstract

olors have visual differences, spectrum, brightness, and saturation, all of which contribute to the effectiveness of advertising campaigns. Different color systems evoke different emotional responses and associations. Warm colors like red, orange, and yellow are associated with energy and excitement, while cool colors like blue and green evoke calmness. Advertisers strategically choose colors to convey specific concepts or messages and capture the attention of their target audience, the connection between colors and emotions, categorizing them into warm, cool, happy, sad, and calm colors. It highlights the importance of color interpretation in conveying psychological messages in advertisements. The use of color can communicate functional aesthetics, symbolic meanings, and evoke specific emotional and physiological responses in viewers. Red is associated with passion and energy, yellow with optimism, and blue with stability. Vividness, the contrast between light and dark shades, plays a role in capturing attention and creating a sense of urgency or sophistication. By understanding the emotional impact of different colors, advertisers can strategically utilize color to effectively convey their message and engage their desired audience, color is a powerful communication language recognized globally, and its usage in advertising aims to encourage consumers and convey the intended message effectively.

**Keywords**: Psychological effect, Choosing colours, Advertisements, Stimulating human interaction, Emotional responses, Positive results.

#### **Introduction**

Color plays an important role in advertising and can influence consumer behavior. Colors have not only visual differences, but also additional aspects such as spectrum, brightness, and saturation. This means that these aspects contribute to the effectiveness of advertising campaigns. It is argued that colors have symbolic associations and evoke emotional responses and that colors can be used strategically to convey specific concepts or messages. Different color systems can evoke different emotional responses and associations. For example, warm colors such as red, orange, and are often associated with energy, excitement, and warmth, while cool colors such as blue and green can evoke calmness, confidence, and emotion, passion, peace. Understanding the emotional impact of different colors allows advertisers to strategically choose colors that match their intended message and audience. Vividness also refers to the contrast between light and dark shades, since bright colors attract attention. This allows you to create a sense of urgency, urgency, and fun in your ads. On the other hand, dark colors can convey sophistication, elegance and mystery, and advertisers can benefit from.[1]

Using color terminology in your advertising text will make the latter more effective and efficient. Color schemes can affect more than just appearance. The impact may also depend on consumer perception of quality or the product itself. Color terms used in advertising copy can refer to a variety of issues and phenomena. Let's start with red. For example, red is the color of fire and blood, and is associated not only with passion, desire, and

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love, but also with energy, war, danger, strength, and determination. Red is an emotionally powerful color. It increases human metabolism, increases breathing rate and increases blood pressure. Because they are highly visible, stop signs, brake lights, and fire equipment are usually painted red. In heraldry, red means courage. This color can be found on many national flags. Red brings text and images to the front. Used as a tone that encourages people to make quick decisions. This is the perfect color for his banners online and for the "buy now" and "click here" buttons on his website. In advertising, red is often used to evoke erotic feelings (red lipstick, red nails, red light districts, "women in red", etc.). Red is widely used to indicate danger (high voltage signals, traffic lights). Also, this color is often associated with energy and is used to promote energy drinks, toys, cars, and products associated with sports and high physical activity. [2]

In summary, the introduction highlights that advertising color has a significant impact on consumer perception and behavior. By understanding color parameters such as spectrum, brightness, and saturation, and the symbolic associations they have, advertisers can strategically select and use colors to effectively convey their message and achieve desired results. It can evoke emotion and capture the attention of your target audience. [1, 3-9]

# <u>Foundations of the theory of psychology and the</u> effect of colors

Expression of emotions differs from person to person. Emotions are common not only to humans but also to other species. The basic emotions are anger, disgust, fear, sadness, anticipation, joy, surprise, and trust. This type of framing can help clarify emotions that can seem vague and overwhelming. Colors can be evoked through emotions. To feel, see and exist the essence of color theory, you need to look around the world. "A mode of expression is a mode of communication" because every human being knows how he acts and interacts with his environment. It reveals the difference between each procedure, which is consistent with color theory, and surprises people to know that color also affects human psychology. [10]

Colors and emotions are interconnected and have categories that are closely related. The categories included are warm colors, cool colors, happy colors, uplifting colors, sad colors, and calm colors. These color categories evoke different feelings and emotions depending on how the color is used psychologically.[10]

**Bright colors**: Warm colors are often said to be bright and bold. They move through space and can become overwhelmed. Warm colors include red,

orange, and yellow. Think fire and a mighty volcano. The contrast with the cool colors works well.[10]

cool colors: Cool colors are also called calm colors. They are calming in nature and take up more space in front. Cool colors include blue, green, and violet/violet. They think the water is a calm blue color. It tends to have a relaxing effect. The basic colors are neutral, both bright and subdued.[10]

Successful color: Lucky colors are also called success colors. It is considered a combination of light and bright colors. It makes you feel more optimistic and happy. These include yellow, orange, pink, and red. This is the color of happiness.[10]

**Dark color**: By nature, sad colors are often called dark. This type of color is dark and calm. Also includes neutral colors. In most cases, gray and blue are considered neutral colors. Blue, in particular, is considered the color of mourning.[10]

Energy color: Energetic colors are often called productive colors. Green is the most productive color if you are in an environment where you have a good sense of balance. Bright red, bright yellow, and neon green are uplifting colors that grab your attention, make you more alert, and help you stand out from the crowd. That's why color is everywhere. we look for; we see; we react to them differently. they have a unique universal meaning.[10]

## Color interpretation of psychological messages in advertisements

Among the visual elements of transition effects, color is the world's most powerful communication language. Before ownership, there is functional aesthetics and symbolic communication. Importantly, although color communication differs among linguists and researchers, it exists in all peoples in all cultures, in all languages, and is understood in the primary colors (dark and transparent colors). That's it. [2] Color is something that everyone in the world can recognize, so it is a human comment or judgment. Human hands, media messages for communication. [4, 7, 9-14]

In the world of advertising and communication, the goal is to use the color of psychologists to encourage consumers and advertisers to get their messages and meanings right. The following areas are considered essential: the product in a way that represents its content and quality in all forms of advertising, including print, shopping malls, television, the Internet, billboards, website users, billboards, posters, etc. graphic representation, branding, and packaging. Anything used anywhere, such as in a logo, corporate identity, or within a product, should be short-lived and is the earliest form of communication, sending a message or tool, so visual and structural features and aesthetics are important. In addition to this, we also need to pay

attention to how expressive characteristics and human reactions influence it. It may also be based on analysis.[10, 11]

The red color is a chemical message from the brain to the kidneys, which secretes the hormone adrenaline. Chemical systems in the body can cause hormonal changes due to increased and accelerated respiration, heart rate, blood pressure, pulse rate, and increased skin perfusion response. This is a psychological reaction that we cannot control. As a result, the human brain is constantly red, creating excitement and energy, which is doubly effective. Therefore, it is colorful, bright, and dramatic, the threshold at which most people recognize human emotion and where much of our inhibitions are lost. reduction. I was stimulated.

**Yellow** is a human's biologically irritating level of exposure to sunlight and daily activities, and has ancient associations with insect bites, dangerous animals, and hunters. This allows men to feel more accurate. This color has more bounce than other Rhin hosts and therefore catches the eve more quickly. Bright colors, shine, portholes, warming sun.[11]

Yellow "losers" avoid security threats by pursuing the philosophy or metaphysics that best satisfies their fellow man, by filling their hearts with religious teachings, and by concentrating on promoting a universal effort to create brotherhood. I believe they are looking for a way to escape. Yellow is a welcome development for delphiniums and wrasse.[11]

The blue color on its surface is biologically strongly associated with water and sky, and is considered a symbol of stability in human life. The sea and the sky will never fall and will never feel as certain as the blue. This color is due to the action of the sympathetic nervous system, which reduces blood pressure, heart rate, and controls breathing. Under the influence of muscle tension, the reduction of color goes in the same psychological direction as relaxation, calmness and activation. It makes the mind think and do more. Blue is a stable, gentle, cool, and reliable color.

Green on a biological level is the color of nature, flowers, and plants. Remember the pure green, the first buds growing again, and the long, strong dark green, the color of the pines, and the silence of the forest. The colors are natural and refreshing, calming and soothing, and have the same sense of security and assurance as fresh water.[11]

This color influences changes in the nervous system at a distance. When the pressure is low, your vascular structures expand and you continue to feel heat. The symbolism of life, growth, eternity, nature, and balance is absolute, making it one of the most calming green colors. "It's not a color that reflects the suffering or fear it contains." And it doesn't add to any movement, but is gentle, serene, and content with itself. But when it is added to yellow and blue, it becomes that color. Added to it to reflect the people. "[11]

Orange, like yellow and red, has a more psychological effect and indicates the functioning of the voluntary nervous system. In terms of color temperature, it is the most popular among the others. Friendly and inviting energy, color and cheerfulness. The color of the indicator directs sunlight to the extension cord. This color is sociable and happy. Orange in the most extreme case is dangerous and should not be suitable for serious messages, but this question tells you a lot about the "brown-oriented" personality. This color stimulates the appetite and therefore affects the nervous system.[11]

White is the missing scene color, but I made sure all colors were present to illuminate it. According to Newton, white light is all the color of the wheel, but black light is not. This color brightens the eye, and if you place a white disc in front of any color, you can create a sharp feeling of contrast. A combination of purity, simplicity and Balinese style, white is warm and cream is approachable.[11]

The color black is synonymous with human biology, levels of darkness, lack of light, and the mystery of night magic. The colors are powerful, mysterious, beautiful, classic and voluminous. Something, a threat, a fatal blow, and a lesson. Where hardness and durability promote weight loss. 'Lusher' believes black is the best choice as it is not the standard choice. Because all the pleasure you get from the wrong situation leads to compensatory behavior and everything else. This person suffers from slowness, and wise actions are associated with

**Brown** is an earthy, rustic color that positively represents CRP. Protective, rich, healthy, safe and long-lasting. Yellow, brown and khaki are ready to do it, so cute and that shade of color.

Brochures are the source of most paints and neutrals, known for their colors (colorless) but only in words, encouraging and authentic messages. A neutral tone reminiscent of buildings and temples from all over the world. Some colors are classic and long-lasting. As a more powerful black and brown character, turn to the dark side and move towards warmer lands and more. [11]

#### The role of colors in conveying advertising messages and shaping impressions

Research has now shown that young people's passion for flowers, which stimulate the five senses, is leading to the creation of local products that are satisfying to use, not only in the field of art but also in the fields of culture, economy, and advertising. It has become. The result of the use of flowers is an increase or decrease in demand and an increase in the comfort of customers, fashion, reduced waiting times, because the management of the marketer decides on the color of the product, and the advice is visible to the buyer brightly and clearly, the lack of understanding the true meaning and impact of colors can increase production costs. Color psychology is used in all forms of advertising, including graphics, branding, product packaging, websites, and shopping malls, emphasizing the need to use color and presenting it as a universal language. It's a combination of billing practices, global satellites, and technology.[15]

To create a harmonious balance between the various elements that contribute to the design and convey the content and theme of visual art. This is the most important principle, especially in graphics and advertising. [15]

Non-verbal communication is one of the main ways to quickly convey messages in all forms and colors. "Attention", constant attention to convey the message "in color", are often overlooked and how to use images in letters and text are part of the principles and skills that graphics and graphics seem to require. Advertising designers in the world. Agreements are made according to the psychology of color and life and their influence on each other, applying color to the content and timing of the message has and has a great psychological impact. The relationship between abstract and strong color to "human thoughts", as well as the creation of aesthetic and emotional responses in it - the response is often Hep Nacho - is the best place to measure the surrounding colors, effects and marketing advertising. The position of the main sentence gives color and vitality to the communication and is called the "silent seller" [15, 16]

promote common "Colors beliefs psychological transactions". Before introducing a logo, design, advertisement, brand or product, managers should study the different meanings associated with the colors they intend to use. Not understanding the importance of color and its interpretation in a specific geographic area can negatively impact a company's image and therefore its sales. In addition, colors have a significant impact on consumer perception and emotions (eg, enthusiasm and liking for advertising), cognitive abilities (eg, perception of information accuracy) and work behavior. Several critical purchase contexts Additionally, previous research has shown that color has a wide range of effects on various factors, such as mental evaluation willingness to accept a new vaccine and willingness to pay. Vulnerability. The buyer does not like the seller. [16]

#### **Color design in advertisements**

Color elements are characterized by the fact that they occupy an important position in various activities that people engage in, and especially in the field of advertising design, views and emotions can be expressed through color elements. Because this message is characterized by expressiveness and aesthetic energy. The importance of color is something that designers embrace because it plays an important role in realizing and building advertising ideas through human relationships. It takes advantage of the complexity of color and its effectiveness, relying on organizational techniques to produce color according to the space allocated to it for impact. on the recipient side. Advertising designers embrace color as an element rich in symbolism and meaning, as a tool that can directly express and suggest ideas, stimulating visual sensations and excitement, and combining functional and aesthetic aspects. You must use color to achieve this. They are distinguished by their ability to distinguish between each color and connect artistic and psychological principles. With high precision, this relationship and how it is used in advertising creates an effective atmosphere for the recipient to be influenced and react to the advertising message. This is the result of advertising agencies and designers. Through it, he persuades the recipient according to his involvement in the elements of the advertisement and his characteristics. Effectiveness and direct impact of realizing advertising content. [17]

The real value of color is intellectual, not decorative," Jan White wrote

"It must not be used to dazzle, but to enlighten" (White, as cited in Nelson). There is a sort of dignity employed in proper color application. Color should function as more than a basic tool for blunt impact. Good design incorporates color in all its subtleties—shade, tint, hue, and chroma. Designers should use color to relate with their audiences, rather than as a tool for psychological manipulation. Color may shout, but it must also speak to its viewers in witty, intelligent, and conversational ways. In the competitive fields of packaging, advertising, and branding, color's dialogues are matchless. [18]

#### **Audience Targeting**

Personalization through color. Color is a great and deceptively simple way to appeal to a specific audience. By carefully considering gender, age, culture, marital status, personality, and color trends, designers can more effectively reach audiences through color. Color signal personalization. The ability for designers to achieve intimacy with their audience through color is a valuable asset. [19]

#### Age

A general rule of thumb when designing for different age groups is to use bright colors when designing for older users. As we age, colors begin to appear darker and lighter colors become more appealing. Kids today have been exposed to a vast palette ever since they first received a big box of Crayola crayons. They are very open to new things and experiment with colors. Color effects such as shimmer, transparency, pearls, and metallics appeal to younger viewers (Paul). Secondary colors will also be announced early. [20]

#### Use of color in advertising

In the words of the Color Marketing Group, "Color sells...and the right color sells best" [19] Color is king in advertising. It attracts viewers [21] captures attention and aids memory [21] Consumers remember colors first, then graphics and numbers, and finally words.

Full-page color ads attract twice as much attention as black and white ads Full-color ads are one-third the cost of black-and-white ads, but have been measured to be up to 15 times more effective. As Eastman Kodak's ads demonstrate, "Black and white ads want budgets. Color ads want results" Color advertising is effective. [22]

The concept of fine-grained probability and the general resource principle suggest that consumers' processing motives may moderate the effects of color in advertising. When motivation to process an ad is low, fewer cognitive resources are available to process the ad. Consumers appear to base their attitudes on heuristic cues such as the attractiveness of the advertisement, the product's photographs, and/or the people depicted on the product. Products are likely to be seen more often when presented in color than in black and white, as color advertising is likely to make such products more palatable. That means it's expensive. Therefore, when processing motivation is low, consumers may find ads that use color as well as black and white images more persuasive.

However, when processing motivation is high. consumers are thought to engage in more laborintensive ad processing and devote more resources to ad processing. Initially motivated viewers may view advertising images as well as less motivated consumers. However, this must be exceeded by carefully crafting verbal advertising claims and examining specific objects in advertising images that support those claims . Color conveys information about the object associated with the blurb and by reinforcing "both the auditory and visual verbal imagery" presented in the blurb. You can contribute to this legitimation process.[23]

For example, an attentive viewer of the grassroots clothing ad mentioned above might verify the ad's claims about the clothing's comfort by examining the parts of the ad image that depict the product. Because it seems to be the most consistent with the claim. Soft, muted clothing colors suggest comfort and relaxation and are therefore more likely to support advertising claims and reinforce. Similarly, an advertisement for Brut's deodorant depicting a beautiful woman in deep, sensual colors may visually support her claim that Brut reveals her sexuality. Additionally, in some situations, even avid consumers may not be aware of the benefits of color. As we will show, this result can be expected if the resources required to process and support the ads are large, but since the same color can consume many resources, the resources available for such tasks is significantly reduced. In particular, it appears that the attention-grabbing properties of color can act as visual noise, distracting attention from largely irrelevant sensory input at the expense of important or more salient information Under these circumstances, color advertising may undermine enthusiastic consumer attitudes toward the product by reducing the processing and substantiation of advertising claims. As Szleczynski states, "Color has been found to increase the time spent looking at irrelevant pictorial stimuli...drawing attention away from important [related] stimuli. By deflecting, we can hinder understanding. [23]

#### Applications of color in graphic design

color schemes: After audience research, designers should focus on the organization, company, product, or service they want to present to their target audience. Before a designer selects individual colors, the color scheme and printing budget must be evaluated.

Vibrant colors are important for effective design. Monochromatic designs that include different shades or shades of the same color are most effective in conveying simple messages. Combining multiple colors can add depth, complexity, and meaning to your designs. Common two-color groups include complementary colors, which are colors that are directly opposite each other on the color wheel. Primary color harmonies often include triads, which are colors equally spaced from each other on the color wheel.

Adding a second color allows designers to simulate full color printing. [22] recommended adding green and blue while avoiding yellow. Red has long reigned as the second most effective color in direct mail.

Generally, four-color schemes are more attractive than one- or two-color schemes [21] However, monochromatic systems were rated as more sophisticated than two- or four-color systems. A simple, monochromatic color scheme can create a

sophisticated and understated atmosphere while reducing costs [22]

A phenomenon known as color oscillation occurs when bright colors of the same intensity are placed next to each other). This can make the text difficult to read. Color vibration is almost always a design flaw, unless it is an intentional part of the design. [18]

Graphic designers need to consider not only color but also saturation. Jorn, Chattopadhyay, Yee, and Dahl (1997) found that greater valence in magazine ads led to more relaxed viewers, and greater saturation led to more arousal. Jorn et al. suggest that these two positive emotions are not mutually exclusive and may actually be a desirable combination in designs that appeal to both senses (such as travel advertising). A carefully chosen color scheme should evoke emotions in the viewer, depending on the content of the design work. [18]

#### **Packaging**

Packages have two important roles. The first is to capture the attention of buyers browsing the supermarket shelves. According to Iceman products you can't see don't sell". His second function of packaging is to non-verbally communicate about the product and determine the product's position among its competitors. This role is known as positioning [22] Both of these roles depend on color choice, which can make or break a product's sales if the quality or attractive positioning proves to be substandard. [18]

Color is cited as the "most important element" in packaging design [22]. When consumers browse store shelves, their eyes move to each item within 1/3 of a second [24], Additionally, it scans store shelves for color rather than design or text [22] 62-90% of customer evaluation of a product depends on color alone. Sturgess (2008) writes, "Color sets the mood before you even begin to download the mental software needed to read product labels."

The product is identified by the color of the package. According to Davis Masten, Director of Cheskin Research, "Even small changes in the hue or saturation of a particular color can impact a product's sales and success". [18]

In packaging, some colors or color combinations have different meanings than in other situations. The white color of the packaging is by no means a negative element. If a soft drink can appears white, it means that the drink is low in calories. [22] Bright letters on a white background give a sense of strength and purity. Alli weight loss products use a white box studded with red, blue, yellow, and green letters to indicate weight loss abilities. [18]

Colgate-Palmolive's John Steele describes yellow as "packaging scary". Red, on the other hand, is "warm and bright". He says there are two

reasons why red sells so well. (1) It conveys a sense of luxury, and (2) it is "an impulsive color that creates a desire to purchase".[18]

#### **Branding**

Color is an essence with great power. If colors and their meanings are enough to threaten national unity, they can also serve as powerful allies to be promoted and supported. For example, it's because of Tiffany eggs and their little blue boxes that a Western woman feels her heart rate increase by 20% when she sees a blue robin egg.

This is why color is an important element in a brand's logo and color palette. [25]

#### Logos

Color selection is not as important as logo design, and small differences in color can have a big financial impact. Colors determine the look and personality of a logo [26]. In contrast, a logo identifies a company and promises that its special qualities reflect the company's character. Your choice of colors can make your logo stand out or stand out. Huang, Lin, and Chan (2008) found that using preferred colors in unfamiliar logos significantly increased logo recall.

In survival mode, a low-quality grayscale rendering such as on-demand advertising, logos need to work regardless of color or meaning. [26] recommends that designers create logos in black and white to test the effectiveness of grayscale before exploring the possibilities of color.

For a logo to reach its full potential, the default requirement is brand color [26] Complimentary colors are often distracting and can undermine brand consistency. However, neutral colors (white, black, gray, silver, etc.) work well with your logo as a contrast to your brand colors. You can also add it to your main color palette. [18]

When choosing colors, restraint is very important. Using too many colors can dilute the symbolic impact of your logo. Multi-colored logos (such as NBC or Google) require a carefully chosen color palette. Colors should work well both alone and in combination. Gernsheimer advises choosing "second layer" colors that can complement the primary colors and complement your color palette [18]

A successful and established logo may rely solely on design and color rather than text. Some companies can only be expressed in color, such as UPS in brown and Coca-Cola in red.

#### **Brand** colors

In the world of branding, nothing says brand like color. [27] Iceman called color the "silent seller". In 1995, the Supreme Court ruled that only

colors can serve as legally protected trademarks [24].

Brand colors provide tremendous insight into the organization or company your brand represents. Brown promises that UPS is stable and reliable [27]. The purple color indicates that Nexium is sensual and spiritual. Orange states that currents are purifying and revitalizing.

Brand designers must consider their competitors' palettes [22]. Brand confusion is a critical factor in determining success. Competitors in a particular market often choose colors to differentiate themselves. For example, AT&T phones are blue, Verizon phones are red, T-Mobile phones are pink, Sprint phones are yellow, and Cingular Wireless phones are orange [27].

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Iceman condemns the exploitation of brand confusion. However, Forrest [22] points out that new brands can actually free ride on the backs of existing competitors by using similar colors. Unbranded cereal maker Malt-O-Meal has boosted the legitimacy of more than a dozen cereals by copying the color palettes of popular cereals from General Mills, Kellogg, Post and Quaker. However, considering brand independence, it is better to introduce new colors in specific areas. [18]

### Color palettes

The color palette should be in harmony with the logo and brand colors [26]. Each color in the palette should also work well with the other colors in the palette.

Color can add a hierarchical element to a brand's design [26]. These are often used in pairs, with the center color outlining the logo and the darker color being used to accent or color the logo.

Usually, the environment in which the colors of a painting appear determines the color parameters and possibilities [26]. Screen colors are free, but printed colors are much more expensive. Full color is usually easy and inexpensive to reproduce using on-screen logos and decals. For logos and panels that will primarily appear in print, choosing a minimal color palette can save you a ton of printing costs over years of branding. [18]

### Theories of color psychology and its effects on consumer behavior

Color is known to have a strong psychological influence on people's behavior and decisionmaking, and this knowledge is highly exploited by both designers and marketers. Color psychology in advertising is considered the most important and fundamental element to achieve maximum sales, and if the color is chosen correctly and the sale of the product is announced, then it will be in the right color. It stands for something and can eventually become a brand. This is the brand color. Color psychology is a field of psychology that studies observers' emotions and reactions to specific colors. People react differently to certain colors, evoking different emotions, moods, and behaviors in humans.[28]

For a new product in the advertising market, nothing is more important than a proper advertising strategy. The details are not important, everything should be investigated and analyzed. Color psychology is based on mythological theories and assumptions about the emotional and psychological effects of colors, both positive and negative. Cool colors are also associated with sadness and depression, while warm colors are associated with aggression and rebellion. For retailers, shopping is a purchasing technology because many factors influence what and how consumers buy. However, most purchases are determined by color, and color has a huge impact on the buyer's mind. [28]

Humans are thinking and feeling creatures, so when we have to make a decision, it has to be meaningful and enjoyable. If a product is intended to appeal to a particular culture, the meaning of each color should be disclosed. Color may be the most important element in a commercial advertising campaign. Consumers notice colors before words and continue to feel closer to the company's products, even in new models (Campbell, 2008). Color choices in advertising and promotional campaigns can influence consumer attitudes towards products and services and, like any logo, can play an important role in increasing sales. The best advertising colors depend on what you're selling and how you want your product or service to be perceived. To choose the best colors to create an ad that attracts and holds people's attention, it's important to know who your ad's target audience is. Color must play an important role in advertising to evoke a strong emotional response.

People react differently to different problems. How people perceive colors is viewed from a subjective perspective. Because there are many factors that influence how people perceive color, it is difficult to determine how color affects consumer emotions and behavior. Choosing the most effective colors for your advertising campaign requires understanding the impact that different colors have on potential customers (Satvendra, 2006). Color is a powerful marketing weapon that marketers use to grab consumers' attention, so it's important to study color psychology, or how colors affect customers as

well as product sales. It is important. It is important to check your target audience and their interests in your free time. Yellow and orange are the best options for young people. However, when selling luxury goods, many people try to avoid using colors that they perceive as "cheap", and according to various analyzes black is a better color in this case.[28]

Kandinsky believes that colors spiritually and go beyond basic levels and physical influences, since physical sensations are unstable and can only be a step towards spiritual motivation. So, it's not just a mechanism to get the colors you see from it; the outside world is connected to the world and its interior, and at the same time it's also connected to human thinking and cognitive mechanisms. It's based on personality type-oriented research." And how, in his reaction to it, the color depends on the degree of stimulation [3] What about the sense of neatness of a person with what type of temperament, what is the level of stimulation? Even if the person's color resists the reaction phenomenon.

The first and largest level of human response is more related to the needs of the environment compared to the biological effects of color. We need to understand the world of light and color and continue to overcome such influences. The second effect is due to reactions. We believe that the "youthful" nuances of our understanding of human consciousness include individual and collective consciousness. The experience of collective consciousness first stops at the typical things that people have experienced and becomes a potential source of human expression and reaction to the same phenomena similar to those experienced by our ancestors.[11]

Based on this idea, the inherent knowledge that a person should have a vague rather than a colorful mental image is part of a person's primary and basic feelings regarding the basic knowledge associated with the same color. is. The third level is a symbolic response to conscious action and includes concepts enlightened through learning. Many beliefs teach that colors highlight destinations in the world.[11]

Each color has a different effect on the consumer; it can be stimulating or calming (Fabrique, 2003). Some studies have shown that warm colors (red, yellow, orange) stimulate the sympathetic nervous system of individuals. Indeed, it would appear that red increases blood pressure, pulse rate and respiratory rate. Conversely, cold colors (blue, indigo and violet) would stimulate the parasympathetic nervous system because these colors reduce blood pressure, pulse rate and respiratory rhythm. These actions are essential to the relaxation response[29]

The influence of color on the formation of attitudes toward products has attracted great interest to researchers (Pantin, 2004; Pantin, 2009). When it comes to taste, and more specifically, color influences the consumer experience. Red means strong taste and green means bitter taste. This confirms the great potential of color to shape sensory perception. Therefore, research by Izan and Pires (2009) suggests that color diversity creates perceptions of supermarket assortment diversity. Overall, this study confirms that color is a very important aspect in children's product perception and evaluation, and that children also look for correspondences between color and product properties. In a study conducted by Dichter [29]

It was taught subjects four consecutive cups of the same coffee (unknown to the subjects) in front of four unknown boxes of different colors (brown, red, blue, yellow). Ta. Participants had to give their opinion on the strength, lightness, body, and sweetness of each type of coffee tested. According to the results, 73% of the subjects found the coffee placed in front of the brown box to be too strong, 84% found the red to be too strong, 79% found the blue to be mild, and 87% rated the yellow. did. Easier.[29]

#### Conclusion

The psychological impact of color choice in advertisements is a vital consideration for advertisers seeking to stimulate human interaction and influence consumer behavior. Colors possess visual distinctions, spectrum variations, brightness levels, and saturation levels, all of which contribute to the effectiveness of advertising campaigns. By strategically selecting colors that align with the intended message and target audience, advertisers can evoke specific emotional responses and associations, ultimately enhancing the overall effectiveness of their advertisements.

The understanding of different color systems and their corresponding emotional responses allows advertisers to convey specific concepts or messages effectively. Warm colors, such as red, orange, and yellow, are often associated with energy, excitement, and warmth, while cool colors like blue and green have the potential to evoke feelings of calmness, confidence, and peace. By utilizing this knowledge, advertisers can craft advertisements that resonate with their audience and create a desired emotional impact.

Moreover, color vividness and contrast play a significant role in capturing attention and creating a sense of urgency or excitement within advertisements. Bright colors tend to attract the viewer's gaze and can be used strategically to generate a sense of immediacy or fun. Conversely, dark colors can convey sophistication, elegance,

and mystery, enabling advertisers to leverage these associations in their campaigns.

The connection between colors and emotions is a fundamental aspect of advertising psychology. Colors evoke emotional responses and have the power to influence consumer perception and behavior. Advertisers can tap into this phenomenon by utilizing color terminology in their advertising copy, enhancing the effectiveness and efficiency of their messages. For instance, red, often associated with passion, desire, and love, can be used to evoke emotions and drive quick decision-making. Similarly, other colors like blue and green can be employed to convey a sense of trust, calmness, or environmental friendliness.

In summary, by understanding the psychological impact of color choice in advertisements, advertisers can strategically utilize colors to effectively communicate their message, evoke desired emotions, capture attention, and drive consumer engagement. The use of appropriate colors enhances the visual appeal of advertisements and enables advertisers to establish a strong connection with their target audience. With color serving as a universal language, advertisers can leverage its power to create impactful and memorable advertising campaigns that stimulate human interaction and yield positive results.

#### **Conflict of Interest**

There is no conflict of interest in the publication of this article.

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