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## Research Article

### Influence of Color Psychology on Consumer Behavior among Business Students

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#### ABSTRACT

Neuromarketing, a rapidly expanding field, utilizes brain-based techniques to understand and shape consumer behavior. Recently, there has been a surge in the popularity of neuromarketing techniques, supported by research indicating their substantial impact on consumer behavior. Notably, color psychology has emerged as a prominent area within neuromarketing. This study aimed to investigate the relationship between color psychology and its impact on consumer behavior among business students of a university in Cebu City. A quantitative correlational approach was employed, and data were collected from business students responding to Likert survey questionnaires distributed electronically. To achieve the study objectives, descriptive analysis and Pearson's Correlation Coefficient were used to ensure a comprehensive evaluation of the data. The findings revealed a high level of awareness among the respondents, with "Pink" and "White" colors demonstrating strong associations. In contrast, "Purple" and "Brown" colors exhibited lower influence. Further analysis demonstrated significant relationships between the perceived level of color psychology in advertising, awareness level, and consumer buying behavior. The study established a strong positive correlation between color preferences, awareness levels, brand recall, and consumer behavior among business students.

**Keywords:** *Brand recall, CIT-University CMBA students, Color preference, Color - psychology, Consumer buying behavior, Perceived effectiveness, Purchase decision, The level of awareness*

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## Introduction

The interplay between color psychology and consumer behavior is a cornerstone of effective marketing strategies, particularly in a global context where the significance of color can vary dramatically across cultures. While the influence of color on consumer perceptions, emotions, and decision-making processes has been extensively documented, research specifically targeting the impact of color psychology on business students—a demographic with unique consumer behavior patterns due to their academic exposure to marketing principles—remains sparse. This gap in literature presents a compelling opportunity for exploration, especially given the potential for color psychology to inform marketing strategies tailored to this educated consumer segment.

Empirical studies, such as those by Casas and Chinoperekweyi, have underscored the pivotal role of color psychology in consumer buying behavior within specific markets, such as the apparel industry, highlighting how color influences emotional and intellectual consumer responses (Casas & Chinoperekweyi, 2019). Similarly, Hunjet and Vuk (2017) emphasized the subconscious effects of color in marketing communications, noting the importance of color selection in engaging consumers effectively. Furthermore, Ren and Chen (2018) explored the cultural nuances of color perception, suggesting that understanding these differences is crucial for influencing consumer behavior globally. These studies collectively underscore the significance of color in marketing, yet leave the door open for further investigation into its effects on business students as a distinct consumer group.

This research aims to bridge the aforementioned gap by examining the influence of color psychology on consumer behavior among business students. By integrating insights from international literature on color psychology with empirical research focused on this demographic, this study seeks to enrich the academic and practical understanding of how color influences consumer behavior in a marketing context. This exploration is particularly relevant for developing marketing strategies that are both culturally and educationally informed, of-

fering new perspectives on engaging with consumers who possess a foundational understanding of marketing principles.

## Background

Modern businesses depend heavily on marketing, and they're always looking for methods to improve their campaigns to draw in and keep clients. The use of brain-based methods to comprehend and impact consumer behavior is known as neuromarketing, a rapidly developing marketing area. These strategies have gained popularity lately, and research indicates that they greatly influence consumers' perceptions and purchasing decisions.

Within the subject of neuromarketing, color psychology is an important field that examines how different colors affect people's emotions and conduct. Labrecque and Milne (2012) state that marketing has used psychology to sway customer behavior, including advertising, branding, and wrapping. The study of color psychology examines how various hues might influence people, actions and feelings. It is an essential part of the area of neuromarketing, integrating consumer behavior research with marketing and neuroscience.

Hence, the purpose of this research is to investigate the impact of color psychology on the buying behavior of CIT-University CMBA students. More precisely, the research will look at how color affects customers' cognitive and emotional reactions and choices on what to buy. This study will present important viewpoints on the use of color in advertising, allowing companies to make well-informed choices about their marketing and branding tactics, as this is particularly important since marketers need to understand the factors that impact the behavior of customers.

## Related Theories and Studies

The Color Psychology Theory studies how color influences human behavior, perception, and emotions. Studies indicate that color can significantly affect a consumer's perception of a product or service and, consequently, their purchasing behavior. According to Labrecque and Milne (2012), colors such as red and blue can convey distinct emotions and characteris-

tics, such as enthusiasm and competence, respectively. Understanding the impact of color psychology on consumer perception and behavior is essential in neuromarketing, in which businesses seek to optimize their marketing strategies by applying neuroscience principles. The color psychology literature review can provide valuable insights into the impact of color on consumer behavior and how it can be used to enhance marketing efforts. (Labrecque and Milne, 2012).

According to the Theory of Attentional-Bias, individuals are more likely to attend to stimuli relevant to their goals and interests, and attention can significantly influence perception and behavior (Eysenck and Calvo, 1992). This theory has been implemented in various fields, including marketing, where it has been utilized to examine consumer attention and preferences (Steenkamp and Baumgartner, 1998). By applying the theory of attentional bias to color psychology, marketers can gain insight into how color affects the attention and behavior of consumers. This can be especially useful in marketing, which can help marketers utilize colors effectively.

According to Arousal Theory, individuals seek an optimal level of arousal, which influences decision-making and motivation (Berlyne, 1960). Understanding how color influences arousal in the context of neuromarketing can provide valuable insights for designing more effective advertising campaigns. Understanding the effect of arousal on consumer behavior can help marketers create more effective 3 marketing strategies and campaigns and can also provide a deeper appreciation of how color can be used to influence consumer behavior.

In the premise of Embodied Cognition Theory states that our bodies and physical experiences play a crucial role in shaping our cognition and perception (Wilson and Golonka, 2013). This theory has been applied to comprehend how sensory cues like color can influence consumer behavior and choice. The embodied cognition framework suggests that color influences our perception and emotional and behavioral response. This theory can provide marketers with valuable insights, as it emphasizes the significance of considering consumers' sensory

and embodied experiences when designing marketing campaigns. The principles of embodied cognition can increase marketers' comprehension of how color psychology can be used to create effective marketing strategies that engage consumers on a sensory and emotional level.

In other related studies, Neuromarketing is a field that employs neuroscientific methods to comprehend consumer behavior and decision-making. Neuromarketing, as defined by Lee, Broderick, and Chamberlain (2007), is the application of neuroscience to conventional marketing research techniques. Neuromarketing measures brain activity and physiological responses to marketing stimuli using neuroscientific instruments such as electroencephalography (EEG), functional magnetic resonance imaging (fMRI), and eye-tracking.

Neuromarketing has several advantages over traditional marketing research techniques. One of the primary advantages of neuromarketing is its capacity to measure consumers' unconscious responses to marketing stimuli. According to Morin (2011), neuromarketing circumvents the limitations of selfreporting and social desirability bias, resulting in a more accurate understanding of consumer behavior. Other related studies also identifies that, (Rendon Alin, Alex & Vera, Carlos, 2023) Color psychology is a field of study that is aimed at analyzing the effect of color on human perception and behavior, the results of several studies show that colors and feelings are not accidentally combined, that their associations are not a matter of taste, but universal experiences deeply rooted in the infancy of our language and our thinking. If we know how to use colors properly, we will save a lot of time and effort. Packaging and brading are treated as separate disciplines. Packaging is about how a product is protected and contained and branding is about how the characteristics of the product are communicated to the consumer through the brand, but if we pay attention, it is clear that the two disciplines are in fact deeply rooted. brand packaging unquestionably provides the visual appeal of the product to the customer in the product design process, from the initial research to the development of the brand concepts and message through the execution of the

design idea and finally to the production of the packaging itself.

Moreover, according to Cugelman et al. (2020), a chosen color palette will affect an audience's emotions and cognition. The appropriate color palette will assist in directing user attention, indicating how to use a brand's system, enhancing their understanding, evoking emotional responses, and establishing favorable brand associations. Meanwhile, colors can influence consumers' willingness to pay, as demonstrated in a study by Bagchi and Cheema (2013), in which consumers were willing to pay more for products with desirable colors.

In the Neuroscience of Color Perception, a study by Lotto and Purves (2002) provides insightful information regarding the perceptual effects of color on cognitive functions. Their findings suggest that the same spectral stimulus can elicit different sensations, contradicting previous explanations of color vision based solely on physiological terms. In addition, the study revealed significant enhancements in the phenomenon of color contrast, which refers to how a perceived color can appear differently in various lighting conditions or environments. For example, a yellow color painted on a product may elicit different perceptions when placed against a blue background, which can either increase or decrease the consumer's opinion of the product. These findings have significant implications for comprehending how color perception can influence consumer behavior and determining how marketers can use color effectively in product design and branding.

Finally, the research conducted by Eun-Young and In-Ho Jeong (2021) centers on examining the individual variations in color perception and the underlying factors that contribute to these differences, specifically in relation to the details of the two-pixel colors for every item. The proposition posits that variations in the perception of chromatic colors among individuals are typically complementary in nature, and that these discrepancies arise from differences in the assessment of the color of the illuminant. Additionally, the research indicates that variances in the interpretation of hues in equivocal images arise from corresponding predispositions. Furthermore, it is necessary to

estimate one of the two complementary colors as the illuminant hue. Additionally, the human eye is capable of perceiving distinct pixel clusters as either chromatic or achromatic. The findings indicate that the attributes of the dual-pixel hues present in every item exert an impact on a person's color perception.

### **Objectives**

This study aims to explore the intricate relationship between color psychology and consumer behavior among CIT - University CMBA students. The overarching objective is to analyze and comprehend the nuanced ways in which colors influence the decision-making processes of these students in the realm of advertising. To achieve this, specific objectives have been outlined. First, we seek to gauge the level of awareness among respondents concerning color psychology and its associations in advertising, with a focused examination on a spectrum of colors, including red, orange, yellow, green, blue, purple, pink, black, white, and brown. Subsequently, we aim to identify the impact of specific and popular colors employed in marketing on consumer buying behavior within the aforementioned color palette. Furthermore, the study endeavors to scrutinize respondents' perceived effectiveness of color psychology in advertising, particularly in terms of color preferences, purchase decisions, and brand recall. Additionally, the investigation aims to unveil any significant relationships among respondents' awareness levels, buying behavior, and perceived effectiveness of color psychology in advertising. Lastly, the study endeavors to distill insights to inform future researchers, thereby contributing to the evolving discourse on color psychology in consumer behavior studies.

### **Methodology**

#### **Research Design**

This study employed a quantitative research methodology since the major goal is to demonstrate a quantifiable link between color psychology and consumer behavior. To be more explicit, a non-experimental correlational study methodology was utilized to evaluate the link between two variables, namely the use of color psychology in marketing and its influence

on consumer behavior among CMBA students at CIT - University

### **Data Collection**

To determine the size of the sample, the study adopts a methodological framework for data collecting. Given the study's correlational quantitative research methodology, quantitative data gathering methods were used.

The study used survey questions that followed a four-point Likert Scale. The enrollment numbers of the student population of CMBA 2nd Semester Students obtained from the Enrollment Technical Office were used in this research. Furthermore, current marketing and consumer behavior, literature and theories serve as additional data sources.

### **Tools And Data Gathering**

Survey questions using Google Forms were chosen as the major data-gathering strategy for this quantitative study. Surveys were created to obtain useful data on the influence of color psychology on customer behavior. Surveys are provided to CMBA participants online to guarantee convenience and to optimize response rates.

### **Research Environment**

The study was conducted at the Cebu Institute of Technology - University (CIT-U), which is located on N. Bacalso Avenue in Cebu City. CIT-U is a recognized academic institution comprising six separate collegiate entities and delivering a complete variety of educational curriculum ranging from elementary to graduate. Collegiate levels. The research participants for this study were chosen exclusively from CIT-U's College of Management, Business, and Accountancy (CMBA). The CMBA includes a wide range of programs, including Business. Administration, Accounting, Tourism, and Management

### **Research Respondents**

The CMBA students enrolled in the second semester of the Academic Year 2022-2023 at Cebu Institute of Technology - University are research participants for our quantitative study. The project intends to recruit 301 CMBA students. Out of a total of 1367 CMBA students

enrolled for the semester. To ensure the representativeness of the sample, we determined the sample size using the Sample Size Formula, considering a 95% confidence level and a 5% margin of error.

### **Research Instrument**

Survey questionnaires were the major form of data collection used to meet the research objectives, in accordance with the quantitative design of the study. The study employed a four-point Likert scale format aligned with the factors found in the study to elicit standardized answers from participants. Finally, the survey questions were distributed online while maintaining the confidentiality and privacy of acquired data.

### **Statistical treatment data**

As the study focuses on color psychology and customer behavior, statistical data treatment is critical in precisely evaluating the link between the direction of the connection between the two designated factors. In accordance with this, the study utilized a quantitative research design and methodology to collect and evaluate data. To guarantee a full statistical treatment of data, the study used weighted mean, frequency, and Pearson's correlation coefficient formula. The use of weighted mean allowed the study to compute the average of the data while underlining the relevance of each value.

### **Results and Discussion**

In this research, the authors aimed to examine how color psychology influences the behavior of consumers, specifically focusing on CMBA students at CIT University. The study provides an overview of the results and subsequent discussion, drawing insights from an analysis of survey responses. The survey aimed to gauge respondents' awareness of color psychology in advertising, the influence of specific colors on consumer purchasing decisions, and the perceived effectiveness of color psychology in terms of preferences, decision-making, and brand recall.

A comprehensive survey questionnaire comprising 37 questions was designed to accomplish the research goal. This questionnaire

was administered to 301 CMBA students at CIT University through Google Forms. The survey was meticulously crafted to gather data on various facets of color psychology and its correlation with consumer behavior. The inquiries encompassed topics such as the connections between colors and specific perceptions, the influence of colors on consumer actions, and the efficacy of incorporating color psychology into advertising strategies.

Upon completing the survey phase, the researchers systematically processed and

analyzed the collected responses. Statistical measures, including weighted mean and frequency, were applied to derive insights into the level of awareness, consumer buying behavior, and the perceived effectiveness of color psychology in advertising. Additionally, Pearson's correlation coefficient formula was employed to identify any significant relationships among these three objectives. The subsequent sections present the key findings extracted from the data analysis, followed by a comprehensive discussion of the results.

*Table 1. Results of the Level of Awareness of Color Association in Advertising Survey Questionnaire with their Corresponding Mean Score n = 301*

No	Indicators	Mean	Category
1	I know that Red is frequently utilized in marketing because it triggers intense emotional responses.	3.52	Strongly Agree
2	I know that Orange is commonly employed to promote food and beverage products as it arouses appetite.	3.27	Strongly Agree
3	I know that Yellow, linked to feelings of joy and positivity, is frequently utilized in advertising to convey these sentiments.	3.49	Strongly Agree
4	I know that Green is associated with nature and health, and is often used to promote environmentally-friendly and healthy products.	3.59	Strongly Agree
5	I know that Blue is typically used in marketing to convey trustworthiness, security, and dependability.	3.49	Strongly Agree
6	I know that Purple is often associated with luxury, and is often used to promote high-end products and services.	3.18	Agree
7	I know that Pink is often associated with femininity and romance, and is often used to promote products targeted at women.	3.70	Strongly Agree
8	I know that Black, symbolizing sophistication and refinement, is frequently used to endorse upscale products and services.	3.45	Strongly Agree
9	I know that White is often associated with purity and simplicity, and is often used in advertising to convey these feelings.	3.68	Strongly Agree
10	I know that Brown is used in advertising to evoke feelings of warmth and comfort.	3.12	Agree

**Descriptive Ratings:** 3.25 to 4.00: Strongly Agree; 2.50 to 3.24: Agree; 1.75 to 2.49: Disagree; 1.00 to 1.74: Strongly Disagree

The awareness individuals have of color associations significantly influences how they perceive advertisements. Table 2 below serves as a guide to understanding this impact, offering weight categories, mean ranges, adjectival

ratings, and qualitative interpretations. This framework is essential for assessing how well respondents understand color associations in advertising, as indicated by their scores.

Table 2. Presentation of Mean Range, Adjectival Rating, and the Corresponding Qualitative Interpretations

Weight	Mean Range	Adjectival Rating	Qualitative Interpretation
4	3.25 – 4.00	Strongly Agree	Highly conscious of how colors are used to convey messages in advertising.
3	2.50 – 3.24	Agree	Moderate awareness of the significance of colors in advertising among people.
2	1.75 – 2.49	Disagree	Slight recognition of the strategic use of colors in advertising.
1	1.00 – 1.74	Strongly Disagree	Little to no recognition of the role that colors play in advertising.

Table 1: Results of the Level of Awareness of Color Association in Advertising Survey Questionnaire with Their Corresponding Mean Score reveals that respondents have a considerable understanding of the links between different colors and their associations in advertising.

CMBA participants at CIT-University acknowledge the colors red, orange, yellow, green, blue, pink, black, and white for their connections to certain emotions, traits, or product types in the context of advertising.

In this study, pink and white emerged as the top colors, scoring 3.70 and 3.68, respectively, showing students' strong awareness of pink's association with femininity and romance and white's association with simplicity. Green,

linked to nature and health, scored 3.59, while red, known for evoking strong emotions, followed closely at 3.52. Both yellow, symbolizing happiness and optimism, and blue, representing trust, security, and reliability, shared a mean score of 3.49. Black, conveying sophistication and elegance, scored 3.45, and orange, often used in food and drink advertising, scored 3.27.

Additionally, the respondents moderately recognized purple (3.18) and brown (3.12), associated with luxury and warmth/comfort, respectively. These results reflect a significant level of understanding among CMBA students at CIT University about the role of color psychology in advertising.

Table 3. Results of the Impact Level of Popular Colors used in Marketing on Consumer Buying Behavior Survey with their corresponding mean score  $n = 301$ 

No.	Indicators	Mean	Category
11	Red creates a sense of urgency and often leads consumers to make impulsive purchases.	3.41	Strongly Agree
12	Orange can create a sense of affordability and can attract budget-conscious consumers.	3.20	Agree
13	Yellow can draw attention to specific elements of a product and may lead consumers to focus on those elements when making a purchase.	3.43	Strongly Agree
14	The color blue has the power to instill feelings of trust and security, potentially influencing consumers to prefer products from a reliable brand.	3.45	Strongly Agree
15	Green can create a sense of environmentalism and sustainability, which may lead consumers to choose eco-friendly products over others.	3.65	Strongly Agree
16	Purple can create a sense of luxury and can appeal to consumers who are ready to spend more for top-quality products.	3.20	Agree



No.	Indicators	Mean	Category
17	Pink can create a sense of femininity and can attract female consumers to products marketed specifically to them.	3.65	Strongly Agree
18	The color black can convey sophistication and appeal to consumers who aim for a stylish and upscale image.	3.47	Strongly Agree
19	White can create a sense of purity and cleanliness, which may make consumers more likely to choose products that are advertised as pure or clean.	3.66	Strongly Agree
20	Brown can create a sense of warmth and comfort and can attract consumers who are looking for products that evoke these feelings.	3.18	Agree
<b>Average Weighted Mean</b>		3.43	Strongly Agree
<b>Descriptive Ratings:</b> 3.25 to 4.00: Strongly Agree 2.50 to 3.24: Agree 1.75 to 2.49: Disagree 1.0 to 1.74: Strongly Disagree			

Table 4 presents a framework that includes weight categories, mean - ranges, adjectival ratings, and qualitative interpretations, designed

to evaluate the influence of color psychology on consumer purchasing behavior.

*Table 4. Presentation of Mean Range, Adjectival Rating, and the corresponding Qualitative Interpretations*

Weight	Mean Range	Adjectival Rating	Qualitative Interpretation
4	3.25 – 4.00	Strongly Agree	High level of impact on buying behavior
3	2.50 – 3.24	Agree	Moderate level of impact on buying behavior
2	1.75 – 2.49	Disagree	Slight level of impact on buying behavior
1	1.00 – 1.74	Strongly Disagree	Little to no impact on buying behavior

Table 3: Results of the Impact Level of Popular Colors Used in Marketing on Consumer Buying Behavior Survey with their corresponding mean score's findings, highlight the significant role various colors play in influencing consumer behavior in advertising. Specifically, pink, with a score of 3.65, is linked to femininity, while green, also scoring 3.65, is seen as promoting eco-friendly product choices. Black, with a score of 3.47, is associated with sophistication, and blue, scoring 3.45, is believed to evoke trust and security. Yellow, with a score of 3.43, is thought to draw attention to specific product features, and red, scoring 3.41, is seen as creating a sense of urgency.

Notably, White received the highest mean score of 3.66, strongly suggesting its association with purity and cleanliness, which

influences consumers to opt for products advertised as such.

Additionally, the respondents moderately concurred with the effects of purple, orange, and brown in advertising. Purple, scoring 3.20, is seen as conveying luxury, appealing to consumers ready to pay more for high-end products. Orange, also with a score of 3.20, is associated with affordability, attracting budget-conscious consumers. Meanwhile, Brown, scoring 3.18, is linked to warmth and comfort, drawing in consumers seeking products that evoke these sensations.

The findings indicate that the aforementioned colors significantly influence the purchasing decisions of CMBA students at CIT University when they are incorporated into marketing strategies.



*Table 5. The Results of the Perceived Level of Effectiveness of Color Psychology in advertising, specifically in terms of: Color Preferences, Purchase Decision, and Brand Recall Survey with their corresponding mean score n = 301*

No.	Indicators	Mean	Category
<b>Color Preferences</b>			
21	There are times when the color of a product seems to capture my attention.	3.66	Strongly Agree
22	Color, in my view, improves marketing materials. In Promotions, ads, etc. will be easier to read than in black and white.	3.49	Strongly Agree
23	I'm likely drawn to a product's color.	3.46	Strongly Agree
24	I enjoy seeing displays of products that are colorful.	3.37	Strongly Agree
25	I believe that the color used in the marketing materials influenced my perception of the product/service.	3.53	Strongly Agree
<b>Purchase Decision</b>			
26	I intend to buy a particular product based on its color.	3.19	Agree
27	I am willing to buy a product when the color of the product appeals to me.	3.51	Strongly Agree
28	I am likely to enter a new store with striking colors.	3.20	Agree
29	I believe that colors used in marketing materials influence my perception of the production or service.	3.47	Strongly Agree
30	I believe that colors influence my purchasing decisions as a consumer.	3.28	Strongly Agree
<b>Brand Recall</b>			
31	I believe that color can increase my ability to recognize brands.	3.53	Strongly Agree
32	I believe that having the ability to distinguish between Colors of products and brands shorten search times.	3.40	Strongly Agree
33	I believe that Color is a useful method for identifying distinct from another brand.	3.54	Strongly Agree
34	I am likely to pick up an item that has a new or different color brand to see what it is like.	3.31	Strongly Agree
35	I rely on the color of the product when buying an unfamiliar brand.	3.14	Agree
36	I believe that colors used in marketing materials can create a memorable brand image in my mind.	3.46	Strongly Agree
37	I believe that color sets the mood of brand expression.	3.56	Strongly Agree
<b>Average Weighted Mean</b>		3.42	Strongly Agree

Table 5 investigates the efficacy of color psychology in advertising within three distinct categories: color preferences, purchase decisions, and brand recall. These categories shed light on how color impacts consumer behavior across various facets. In the Color Preferences category, it was apparent that colors significantly influenced consumers, with the statement "Colors of a product seem to capture my attention" achieving the highest mean score of 3.66, indicating a high level of effectiveness.

Respondents strongly affirmed that color in marketing materials shapes their perception of the product or service (3.53) and enhances the readability of marketing materials (3.49). They also expressed a likelihood of being attracted to a product based on its color (3.46) and enjoying vibrant displays of colorful products (3.37). These findings underscore the pivotal role of color in attracting consumer attention and creating visually appealing marketing materials.

Transitioning to the Purchase Decision category, three out of five factors received strong agreement from respondents. Product appeal led with the highest mean score of 3.51, followed by the influence of color on the perception of the product or service (3.47) and the impact on purchasing decisions (3.28). This suggests that the color of a product influences consumers when they make purchasing decisions. Respondents also indicated being enticed to enter a store with striking colors (3.20) and being inclined to purchase a product based on its color (3.19).

In the brand recall category, respondents acknowledged the role of color in enhancing brand recognition and differentiation. They strongly agreed that color sets the mood of brand expression (3.56), enables brand distinction (3.54), increases brand recognition (3.53), and creates a memorable brand image (3.46). Additionally, respondents believed that colors aid in differentiating between product and brand colors, reducing search time (3.40), and making them more likely to explore items with

new or different color brands (3.31). Respondents also rely on the color of a product when purchasing an unfamiliar brand (3.14). These findings underscore the significant impact of color on brand recognition, expression, and consumer interactions with products and brands.

In summary, Table 3 illustrates the perceived high effectiveness of color psychology in advertising across various aspects of consumer behavior. It emphasized the crucial role of color in capturing attention, influencing purchasing decisions, and enhancing brand recognition and differentiation. Colors were identified as setting the mood of brand expression, increasing brand recognition, and creating lasting brand images in consumers' minds. To delve deeper into the relationships between level of awareness, consumer Buying Behavior, Color Preferences, The Pearson's Correlation Coefficient was utilized to ascertain the correlation and significance between Purchase Decision and Brand Recall.

*Table 7. Test of Significant Relationship between the Perceived Level of Color Psychology in Advertising, Level of Awareness and Consumer Buying Behavior n = 301*

Color Psychology in Advertising	Variables	r Stat	P-value	Decision	Interpretation
Color Preferences	Level of Awareness	0.605	<.001	Reject H0	Significant
	Consumer Buying Behavior	0.612	<.001	Reject H0	Significant
Purchase Decision	Level of Awareness	0.516	<.001	Reject H0	Significant
	Consumer Buying Behavior	0.565	<.001	Reject H0	Significant
Brand Recall	Level of Awareness	0.536	<.001	Reject H0	Significant
	Consumer Buying Behavior	0.636	<.001	Reject H0	Significant

Table 7 displays the outcomes of assessing significant connections between the perceived influence of color psychology in advertising, awareness levels, and consumer purchasing behavior. Pearson's correlation coefficient formula was applied to gauge the strength of these relationships, denoted as the r Stat. The column labeled "P-value" shows the significance level, while the "Decision" column indicates whether we reject the null hypothesis (H0) based on the

p-value. In all cases, the P-values were less than 0.001, indicating statistical significance (OPEX Resources, 2019), leading to the rejection of the null hypothesis for all relationships. This provides evidence supporting the alternative hypothesis (Ha) that there is a significant relationship between color psychology and consumer behavior among CIT-University CMBA students. To facilitate the understanding of variable r, a table is given.

Table 9. Interpretation of the Correlation Coefficient

<b>r value</b>	<b>Relationship</b>
$\pm 0.70$ or higher	Very strong positive (negative) relationship
$\pm 0.40$ to $\pm 0.69$	Strong positive (negative) relationship
$\pm 0.30$ to $\pm 0.39$	Moderate positive (negative) relationship
$\pm 0.20$ to $\pm 0.29$	Weak positive (negative) relationship
$\pm 0.01$ to $\pm 0.19$	No or negligible relationship
0	No relationship [zero correlation]

Pearson's correlation coefficient values reveal the strength and direction of connections between variables. In terms of color preferences, there is a robust positive correlation with both the level of awareness ( $r = 0.605$ ) and consumer buying behavior ( $r = 0.612$ ). Similarly, purchase decisions exhibit a substantial positive relationship with the level of awareness ( $r = 0.516$ ) and consumer buying behavior ( $r = 0.565$ ). Furthermore, Brand Recall demonstrates a robust positive association with the level of awareness ( $r = 0.536$ ) and consumer buying behavior ( $r = 0.636$ ).

In summary, these results underscore the significant and strong associations between color psychology in advertising, the level of awareness, and consumer buying behavior among CMBA students at CIT University. The noteworthy positive correlation coefficients imply that color preferences, level of awareness, and brand recall have the potential to influence consumer behavior.

## Conclusion

This research, titled "Neuromarketing: An Analysis of the Influence of Color Psychology on Consumer Behavior Among CIT-University CMBA Students," confirmed a significant link between color psychology and consumer behavior. It showed that CMBA students at CIT University are quite aware of color psychology in advertising, understanding color's association with emotions and products.

Key findings include the substantial impact of color psychology on preferences, purchasing decisions, and brand recall among 301 respondents. These insights are crucial for marketers and advertisers aiming to use color psychology to influence consumer behavior. By aligning marketing strategies with color associations and consumer perceptions, campaigns

can more effectively connect with their audience.

The study successfully met its objectives, which included analyzing color psychology's effect on consumer behavior, assessing awareness of color associations in advertising, and determining the influence of specific colors on purchasing behavior. It also examined the perceived effectiveness of color psychology in advertising in terms of preferences, purchase decisions, and brand recall, and investigated the link between awareness, buying behavior, and the effectiveness of color psychology.

The research highlights the strategic importance of color in advertising due to its significant influence on consumer choices. Future studies can build on these findings to further understand color psychology's role in consumer behavior, aiding marketers in refining their strategies for greater impact.

## Recommendations

Taking on the extensive investigation carried out for the study "Neuromarketing: An Examination of Color Psychology's Effect on Consumer Conduct Among CIT-University CMBA Students," a number of important. There are recommendations made for next researchers looking to build on this topic and deepen our comprehension of the subject.

*For business owner.* Using the framework that this study established, future researchers could Profit from the information and conclusions that this study produced. By investigating various target markets, industry sectors, or geographic settings, Researchers are able to determine how strong and broadly applicable the associations are. found in this investigation. This can be accomplished by doing the study again in several environments or use

longitudinal study methodologies to track shifts in customer behavior with time.

*For CMBA students*, there are applications to be gained from this study and marketers with experience. Subsequent investigators can seek to translate the scholarly results into practical suggestions that may be implemented in real-world marketing initiatives. Moreover, this work will help future researchers by operating their own company to determine which colors are most accurate to customers. Through industry-specific research, scientists can determine the best color schemes for various product categories, target markets, and promotional goals. This will provide marketers with data-driven insights to increase customer interaction and maximize their marketing efforts.

*For future studies*, in order to determine causes and exert more control It is advised to use an experimental study strategy when dealing with variables. By adjusting certain color stimulus and seeing how that affects customer behavior, Researchers are better able to comprehend the dynamics of cause and effect between color decision-making in consumers and psychology. Experimental research makes possible more authority and provide light on the processes that underlie color's impact on the actions of consumers. Using the framework that this study established, future scholars could Profit from the information and conclusions that this study produced. By investigating various target markets, industry sectors, or geographic settings, Researchers are able to determine how strong and broadly applicable the associations are. found in this investigation. This can be accomplished by doing the study again in several environments or making use of longitudinal study methodologies to observe changes in consumers behavior over time. The recommendations made here provide as a foundation for future researchers to overcome methodological constraints, broaden the body of knowledge, investigate novel research methodologies, and close the divide between business. By expanding on this study, academics and industry professionals may fully utilize color psychology's ability to influence customer behavior and provide efficient marketing techniques in a market that is getting more and more competitive.

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