



EXPLORING THE EFFECT OF COLORS ON IMPULSE BUYING IN FMCG SECTOR- A COMPREHENSIVE STUDY

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Abstract: This research study explores the intricate relationship between colors and impulse buying behavior in the fast-moving consumer goods (FMCG) sector. By employing a multiple regression analysis approach, the study delves into the influence of color perception and cultural factors on consumer decision-making processes. The findings highlight the significance of strategic color branding, cultural sensitivity in global marketing, seasonal and trend-based marketing, in-store display optimization, and cultural integration in packaging design for enhancing brand-consumer connections and driving impulse buying behavior. The study underscores the importance of understanding how colors trigger consumer impulsivity in the dynamic FMCG market landscape.

Index Terms - Colors, Impulse Buying Behavior, Fast-Moving Consumer Goods (FMCG), Multiple Regression Analysis, Strategic Marketing, Branding, Cultural Sensitivity, Seasonal Marketing, In-Store Display Optimization.

INTRODUCTION

In the dynamic and highly competitive realm of Fast-Moving Consumer Goods (FMCG), where choices abound and consumer decisions unfold with rapidity, the significance of colors in influencing impulse buying behavior has become an imperative focus for marketers and researchers alike. The American Marketing Association (AMA) defines a brand as an intricate composition of symbols, experiences, and perceptions designed to distinguish products from their competitors, shaping consumer loyalty and establishing a unique identity. Within this complex landscape, colors emerge as powerful instruments, capable of influencing consumer perceptions, evoking emotions, and playing a pivotal role in the intricate dance of consumer-brand interactions.

Colors, as integral components of brand identity, transcend mere aesthetics to become a language through which brands communicate with consumers on a subconscious level. Extensive research underscores the substantial role of colors in brand recognition, the conveyance of product attributes, and the signaling of quality (Aaker, 1996.). This becomes especially crucial in the FMCG sector, where products vie for attention in crowded and competitive spaces, and consumer decisions are often impulsive and swift (Hemphill, 1996.) Understanding the nuanced interplay between colors and consumer impulsivity in this context is paramount for marketers seeking to create impactful brand experiences and drive purchase decisions in the rapidly evolving FMCG environment.

The power of colors in consumer decision-making is highlighted by the assertion that it constitutes a staggering 85% of the reasons behind a consumer's choice to purchase a product (Elliot & Maier, 2012.). As consumers navigate through an array of products on store shelves, the strategic use of color becomes a vital tool for marketers and brand managers to differentiate their products, signal quality, and capture customer attention (Aaker, 1996.). A brand, akin to a carefully chosen name, becomes synonymous with its selected color palette, creating a distinctive identity that extends beyond the functional attributes of the product.

While the broader marketing literature acknowledges the pivotal role of color in consumer behavior, a conspicuous research gap exists concerning its specific influence on impulse buying behavior within the FMCG sector. The FMCG market, characterized by rapid decision-making patterns and a plethora of product choices, presents a unique terrain that necessitates dedicated exploration. In this

rapidly evolving market, where consumers often have limited time for decision-making and are influenced by immediate visual stimuli, understanding how colors function as catalysts for impulse buying behavior is critical (Aaker, 1996,).

This study aims to address this research gap by investigating the influence of color on impulse buying behavior in the FMCG sector. Understanding how colors trigger impulse buying behavior in this sector is crucial for marketers seeking a competitive edge in an environment characterized by rapid decision-making and intense competition. This research aims to bridge this gap by delving into the nuanced interplay between colors and consumer impulsivity within the FMCG market.

Theoretical Background

T1: Colour and Brand aspect

Colors serve as cognitive cues that intricately contribute to brand recognition. (Aaker, 1996,.) Brand Personality Framework provides a theoretical foundation, suggesting that colors become synonymous with specific personality traits. This cognitive association aids consumers in forming mental links with brands, facilitating recall and differentiation. For example, the warm and vibrant tones of red may be linked to attributes such as excitement and energy, contributing to the memorability of brands in the minds of consumers (Labrecque & Milne, 2012,). In the rapidly evolving FMCG sector, where swift decision-making prevails, the cognitive dimension of color and brand recognition gains paramount importance. Consumers, navigating through a plethora of products, rely on these cognitive associations to make quick and informed choices.

T1.2. Emotional Aspect:

Colors transcend the cognitive realm, tapping into the emotional reservoirs of consumers, deeply influenced by psychological experiences and cultural contexts. The emotional resonance of colors goes beyond mere recognition, forging a deeper connection between consumers and brands (Labrecque & Milne, 2012,). The positive emotions associated with specific color palettes, such as trust and reliability, contribute to brand loyalty. Understanding the emotional dimension of color in brand recognition is crucial for comprehending how these emotional triggers influence impulsive buying decisions in the FMCG sector, where emotions often guide swift choices (Hemphill, 1996,). Brands strategically leverage these emotional connections to create lasting impressions and evoke brand loyalty in a market where consumer decisions are swift and emotionally charged.

T2. Consumer Psychology and Color Theory:

T2.1. Perceptual Dimension:

Consumer psychology, a field exploring the intricacies of how individuals interact with their environment, sheds light on the perceptual processes activated by colors. The perceptual dimension emphasizes that color choices extend beyond mere aesthetics; they play a crucial role in attracting attention, directing focus, and enhancing visual appeal in retail environments (Elliot & Maier, 2012,). In the crowded and competitive FMCG sector, where consumers navigate through displays brimming with choices, understanding the perceptual aspects of color becomes crucial. This dimension explores how colors act as visual stimuli, impacting consumers at a perceptual level and influencing their decision-making processes. Brands strategically employ color schemes to stand out amidst the visual clutter, aiming to capture the attention of consumers in a fleeting moment of decision-making.

T2.2. Emotional Response Dimension:

Color theory, a fundamental aspect of visual communication, posits that colors elicit specific emotional responses. Consumer psychology, in conjunction with color theory, explores how these emotional dimensions shape purchasing behavior. Colors, acting as emotional triggers, evoke feelings of excitement, urgency, or calmness, influencing consumer perceptions of products and brands (Elliot & Maier, 2012,). The emotional response dimension in the FMCG sector becomes a critical area of exploration, providing a deeper understanding of how emotional triggers associated with specific colors contribute to impulsive buying behavior. Recognizing that emotions are integral to consumer decision-making, especially in markets characterized by rapid choices and intense competition, allows marketers to strategically leverage colors to create impactful brand experiences.

T3. Impulse Buying Behavior:

T3.1. Psychological Triggers:

Impulse buying behavior is a complex phenomenon rooted in various psychological triggers. Understanding the psychological aspects involves exploring the emotions, desires, and spontaneous impulses that lead to unplanned purchases. Emotional triggers, such as excitement, pleasure, or the fear of missing out, can prompt impulsive buying. Moreover, psychological factors like curiosity and the need for instant gratification play a role in the decision-making process. Recognizing and deciphering these psychological triggers are crucial for marketers aiming to leverage impulse buying behavior, especially in the fast-paced FMCG sector.

T3.2. Situational and Contextual Influences:

Impulse buying is highly influenced by situational and contextual factors. External stimuli in the retail environment, such as promotional displays, limited-time offers, and product placements, create a sense of urgency and drive impulse purchases. Additionally, social and cultural contexts can impact consumer behavior, with societal norms and trends influencing impulsive decisions.

Understanding the interplay between situational cues and consumer response is essential for marketers seeking to capitalize on impulsive buying behavior in the dynamic and competitive FMCG market.

Research Gap:

While existing studies explore the psychology of color in marketing and its impact on consumer behavior, there is a dearth of literature specifically investigating the role of colors in triggering impulse buying behavior within the FMCG sector. The FMCG market, characterized by its rapid decision-making patterns and an extensive array of product offerings, demands a focused investigation into the interplay between colors and consumer impulses. This research aims to bridge this gap by providing insights tailored to the unique challenges and dynamics of the FMCG market, thereby contributing to a deeper comprehension of the role of colors in driving impulsive buying decisions.

Hypotheses:

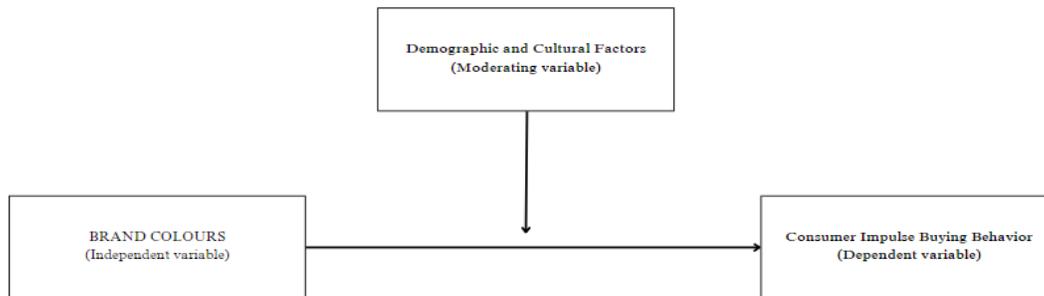
Hypothesis 1: Initial Impression and Color Scheme: Consumers' initial impressions of a product are influenced by the product's color scheme.

Hypothesis 2: Emotional Associations with Colors Impact Impulse Buying: Colors evoking positive emotions (e.g., excitement, energy) are more likely to trigger impulse buying in the FMCG sector compared to colors associated with calmness or neutrality.

Hypothesis 3: Color Consistency Builds Brand Recognition but May Reduce Impulse Buying: Consistent use of a specific color associated with a brand in FMCG products enhances brand recognition but might lead to reduced impulse buying as consumers become habituated to the brand.

Hypothesis 4: Packaging Color Influences Perceived Product Quality: The color of FMCG product packaging significantly influences consumer perceptions of product quality, affecting the likelihood of impulse purchases.

Conceptual framework:



Need for the study

The contemporary Fast-Moving Consumer Goods (FMCG) sector, marked by its rapid consumer decisions and an array of product choices, demands an in-depth exploration of the impact of colors on impulse buying behavior. The study, titled "Exploring the Effect of Colors on Impulse Buying in FMCG Sector - A Comprehensive Study," recognizes the urgency and significance of investigating this aspect.

Swift Consumer Decisions and Impulsivity in FMCG:

In the FMCG realm, consumers make decisions swiftly, often influenced by immediate visual cues. Understanding how colors act as catalysts for impulse buying behavior is crucial in this context. The rapid nature of consumer choices in the FMCG sector necessitates a nuanced exploration of the role colors play in shaping impulsive decisions. (Hemphill, 1996,) notes the substantial impact of colors, constituting a noteworthy 85% of the reasons behind a consumer's choice to purchase a product. This statistic underscores the undeniable influence of colors in the decision-making process. Colors, transcending aesthetic appeal, become a language through which brands communicate with consumers on a subconscious level.

Research Gap and Distinct FMCG Market Dynamics:

Despite acknowledging the pivotal role of color in consumer behavior, a noticeable research gap exists specifically regarding its influence on impulse buying behavior in the FMCG sector. The unique challenges presented by the FMCG market—crowded spaces, limited decision-making time, and immediate visual stimuli—create a distinctive terrain that requires focused exploration. This study seeks to bridge this gap by delving into the nuanced interplay between colors and consumer impulsivity.

This exploration is not merely an academic endeavor but a strategic necessity for marketers in the FMCG sector. As the market continues to evolve rapidly, understanding how colors trigger impulse buying behavior becomes instrumental for gaining a competitive edge.

Review of literature

The present investigation explores the moderating influence of time constraints on the correlation between package color and consumer switching behavior in the detergent market within Jos North Local Government Area of Plateau State, Nigeria. Employing a quantitative research design, data were collected through the distribution of 384 self-administered questionnaires to detergent consumers across three major markets in the capital city of Jos. Theoretical underpinnings draw from the Impulse Purchase Theory, Theory of Trying, and Unconscious Thought Theory, framing the study within the broader context of consumer switching behavior. Respondents were chosen using a non-probability sampling approach, and data analysis employed the multiple regression method facilitated by SPSS.

The study's outcomes indicate a noteworthy association between package color and consumer switching behavior. Additionally, a substantial relationship was identified between time pressure and consumer switching behavior. Importantly, the research reveals that time pressure acts as a moderator in the relationship between package color and consumer switching behavior.

From a practical standpoint, the implications of these findings extend to marketing managers, governmental bodies, and educational institutions. It is crucial to recognize that the context in which colors are employed significantly influences their perception. For example, the color brown may evoke feelings of warmth in association with wooden materials in interior design, but convey elegance and dignity when used for clothing. Understanding these contextual nuances is paramount when exploring the psychological responses and emotional associations tied to colors for applications in product design. Therefore, a consistent context, such as wooden products or clothing, should be maintained to systematically examine how colors may elicit varied psychological responses, providing valuable insights for future design applications.

Packaging: The State-of-the-art

Over time, color has served as a versatile marketing tool, impacting store atmosphere, enhancing consumer experiences, and bolstering website appeal to foster brand engagement and recognition. Colors act as brand identity cards, influencing consumer perceptions and creating distinctiveness amid competitors. (Labrecque & Milne, 2012,) assert that colors shape brand identity, affecting perceived personality traits. Marketers, according to (Bottomley, 2006,) must be mindful of color meanings for effective brand communication, as color choices significantly impact brand DNA and consumer perceptions. Colors not only differentiate brands but also influence retailers' sales, with studies revealing the impact of color on shopping behavior. Despite existing research on color and marketing, a comprehensive exploration of color techniques and anthropomorphism's role in capturing consumer attention and shaping purchase intentions remains unaddressed. (IN & Ahmad, 2018,)

Packaging holds a pivotal role in the success of products, especially in the fast-moving consumer goods sector, significantly impacting consumers' purchasing decisions (Rezai, 2011,) The evolution of retailing and marketing has elevated packaging to a central position in the emerging consumer society (Porter, 1999,). Consumer decisions are often made at the store shelf, underscoring the crucial role of packaging in point-of-purchase choices (Underwood & Ozanne, 1998,). Traditionally, packaging was limited, but its importance surged in the 1950s with the rise of self-service retailing (Funk & Ndubisi, 2006,) Unfortunately, packaging design historically received less attention in marketing, lacking a robust theoretical foundation (Arun Kumar et al., 2012,) (Cymbalo et al., 1978,)

Colour And Consumer Switching Behaviour

Marketing literature has traditionally given scant attention to color research, despite its profound impact on consumers' choices and perceptions. (Demura, 2013,) identified color as a significant intrinsic quality cue in product assessments, particularly in the context of meat. (Labrecque & Milne, 2012,) demonstrated that, in the realm of medicine, color outweighed retail price in influencing consumer purchase decisions. Packaging color, crucial for communication with customers, serves as a powerful motivator for purchasing decisions. (Funk & Ndubisi, 2006,) outlined five dimensions of color, including significance, attitude, attractiveness, normative aspects, and preferences, emphasizing the nuanced role of color in customer perceptions and buying preferences. (Saad Ahmed Javed, 2015,) Traditional psychologists historically overlooked the impact of color on human personality, despite psychiatrists utilizing it as an experimental variable alongside other personality assessments. (Cimbalo et al., 1978,) demonstrated varied emotional responses to color among individuals. Across cultures, (Wiegersma & Vander Elst, 1988,) noted blue as a universally accepted color, while black has historically carried disapproving undertones since 2300 BC. Cultural associations with colors differ; for instance, the Igbo people in Nigeria see white as purity and black as evil. In the contemporary context, product package color plays a pivotal role in influencing emotional responses, sparking interest, and shaping consumer buying behavior. (Shruti, 2014,) Color harmony, as proposed by (Wiegersma & Vander Elst, 1988,) is the pleasing effect produced by two or more colors in close proximity. Granville (1987) defines it as the use of colors that pleases people. Studies categorize into two groups: those focused on orderly color arrangements (Itten, Munsell, Nemcsics, Ostwald) and those on interrelationships between colors (Chevreul, Chuang, Goethe, Moon and Spencer). Consistent findings indicate that colors harmonize when of the same hue or complementary in hue. The equal-chroma principle, endorsed by various studies, suggests harmonious combinations when colors have similar chroma. This study explores the link between color harmony in packaging design and product liking. (Wei, 2014,)

Usage of Colour in Package Designs

In the last ten years, heightened research interest in color and psychological functioning has yielded theoretical and empirical advancements, yet notable weaknesses persist. This article offers concise theoretical reviews of this research, delving into historical contexts, recent progress, and critical evaluations pinpointing weaknesses. Color, encompassing hue, lightness, and chroma, influences cognition and behavior, with hue typically dominating theoretical discussions. While lightness has received some attention within

conceptual metaphor theory, chroma remains largely overlooked, along with the combined effects of hue, lightness, and chroma. Recognizing color's potent impact on perception, particularly in packaging, is crucial for influencing brand and product selection. Optimal color choices contribute significantly to design packages, enhancing recognition and consumer perception. (Kumar, 2017,) Marketers strategically leverage color associations to enhance product sales, conveying specific messages to consumers. Illustratively, Crest 3D White strips predominantly employs blue, symbolizing cleanliness and aligning with its promise of achieving pristine, white teeth. Nature Valley Granola Bars opt for a green and yellow box, tapping into green's natural and outdoorsy connotations, aligning with the product's emphasis on all-natural, healthy ingredients. The inclusion of yellow adds a touch of warmth and optimism. Apple's use of a black iPhone box exemplifies effective packaging, associating black with power and luxury, reinforcing the exclusive and high-quality image of their expensive products. (Kumar, 2017,)

Demographics

(Omar, 2016,) delved into the impact of age, gender, income, education, and household composition on consumer behavior. Likewise, (Yahya, 2022,) explored the interplay between age, occupation, and income. Noteworthy research by (Rezai, 2011,) underscored the significant influence of educational level and income on purchase intention. In a parallel study, In and Ahmad (2018) highlighted the substantial effects of age, gender, and education on purchase intention. Additionally, (Demura, 2013,) focused on coffee consumption, revealing a gender disparity with males exhibiting a higher inclination for coffee consumption. Collectively, these studies enrich our understanding of the factors shaping consumer behavior and purchase intention. Age represents the chronological span of an individual's or entity's existence up to the current moment. Developmental stages shape purchasing habits, influenced by evolving needs, lifestyles, and personal values (Haliru, 2013,) (Murat, 2011,) (Njigua, 2018,) Examining consumer behavior in Malaysia's Klang Valley, (Yahya, 2022,) found age to significantly impact purchase intention. Correspondingly, Lewsley's study (2021, as cited in (Yahya, 2022,)) revealed heightened coffee consumption among individuals aged 13 to 18. (Rezai, 2011,) explored age-related preferences in packaging perceptions, finding that the 18-30 and 31-50 age groups favored glass packaging, while the 51-70 age group preferred plastic packaging.

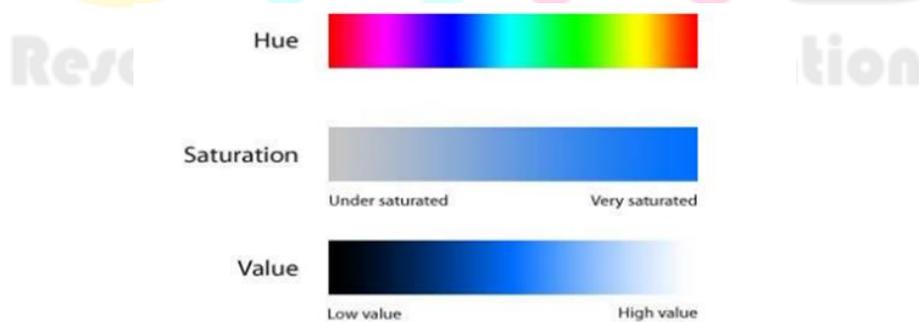
Purchase intention, as defined by (Valarie, 1988,) and (Speece & Silayoi, 2007,) as cited in (Haliru, 2013,) refers to a consumer's decision-making rationale when selecting a particular brand or product under specific conditions. It is also influenced by factors like product categories, demographics, and consumer moods, as noted by Kamaruddin and Kamarulzaman (2009) cited in (Rezai, 2011,) Recognized as a valuable tool for marketers, understanding consumers' intentions to purchase aids in forecasting future behavior and devising effective marketing strategies. Purchase intention, intricately linked to consumer behavior, perceptions, and attitudes, serves as a predictive measure in the purchasing process, influenced by factors such as price, perceived quality, and value. Additionally, some argue that demographic elements like age, gender, profession, and education impact purchase intention.

Marketing Implications

Understanding associative learning requires defining the fundamental principles of color: hue, saturation, and value. Hue signifies the color's wavelength and label (e.g., orange or green), while saturation reflects color intensity or pigmentation. Value indicates color brightness. These factors collectively shape how people perceive and form associations with color. Research reveals color associations among college students, associating green with nature and positive feelings, blue with water and comfort, red with love and dominance, black with power, and yellow/orange with happiness. Another study identifies common descriptors for colors, noting that brighter hues tend to be positively perceived. Such findings are crucial for effective product packaging design. (Kumar, 2017,)

Packaging's functions are fundamental and multifaceted, encompassing marketing communications, logistics, distribution management, sustainability, and branding. It serves as a key communication tool, conveying information, promoting products, and enhancing communication with consumers (Hemphill, 1996,) (Murat, 2011,) identified visual and informational elements as key factors influencing consumer decisions. These encompass graphics, color, size, shape, and product information. The significance of packaging extends to perishable foods, where it communicates crucial details such as allergy information and product freshness in developing countries and non-competitive markets, the packaging market's value is underestimated, but in developed nations, it is a multi-billion-dollar business. With the rise of e-commerce, packaging becomes a critical factor in sales promotion, replacing traditional salespersons' roles and emphasizing its impact on consumer attitudes and sales performance. (Mohebbi, 2014,)

Consumer behavior encompasses the process of a consumer choosing, acquiring, and utilizing goods and services to fulfill their needs. Following the selection of products, consumers evaluate their financial capacity by taking into account factors like social, cultural,



personal, and psychological influences (Gajjar, n.d.) Additionally, Jivana's research in 2014 underscores the significant impact of personal and psychological factors on consumers' purchase intentions. Brand recognition, the consumer's ability to link a product with

a brand, is cultivated by marketers through consistent use of specific colors and shapes in a brand mark across all company facets. Loyola University researchers found that color enhances brand recognition by up to 80%. In a 3-second ad study, over 62% of participants associated a brand based solely on colors. This recognition significantly influences consumer purchasing behavior, allowing shoppers to quickly spot familiar brands. Successful establishment of brand recognition enables temporary color manipulations for added product interest, as exemplified by Heinz's introduction of Blastin' Green ketchup, which boosted sales by \$23 million. (Kumar, 2017.)

The investigation into packaging, particularly the influence of advertising and marketing, has not received extensive attention. Packaging design is often categorized as serving offensive or defensive purposes. Defensive packaging aims to protect consumer products from risks and damage, while offensive packaging is designed to enhance product sales in the current retail landscape, characterized by self-service stores and intense competition among numerous brands, packaging plays a pivotal role. With consumers independently selecting products from shelves, packaging not only conveys information but also assumes a crucial role in sales functions. Ineffective packaging can negatively impact consumer attitudes, influencing perceptions of product quality and manufacturer credibility. Packaging serves as a means to convey information, especially when consumers may feel fatigued or disinterested. In contemporary society, packaging is indispensable, playing a vital role in the production, storage, distribution, and marketing of consumer goods. Some companies view packaging as a source of competitive advantage, allowing for differentiation from competitors. (Aaker, 1996.)

Methodology

The study's sample size included a total of 102 individuals, with 53 male and 49 female, located throughout India. The chosen methodology for the study is non-probabilistic, specifically adopting the Convenience Sampling technique. The sample comprises people from various professions such as students, teachers, lecturers, corporate professionals varying from ages 18 till 60. The questionnaire was distributed by email and physical copies.

Scale and Measurement:

General Perception of Colors (Independent Variable):

Participants' general perception of colors was assessed using a 3-item scale based on their responses to statements related to the impact of color schemes on initial impressions, attention attraction, and preference for aesthetically pleasing combinations. The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Impulse Buying (Dependent Variable):

The impulse buying behavior was measured through a 4-item scale, capturing participants' likelihood of making impulse purchases based on factors such as favorite color, the influence of warm and neutral colors, and alignment with current trends. The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Cultural Factors (Moderating Variable):

Cultural factors influencing color perception were gauged using a 3-item scale that explored participants' opinions on the influence of brand logo or packaging colors on brand perception, associations of trustworthiness and reliability with specific colors, and the impact of color on the perception of freshness and quality. The Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Statistical Technique:

The chosen statistical technique for analysis was the robust and widely utilized multiple regression approach. This method was selected due to its ability to delve deeply into the complex relationships between variables and to provide a comprehensive understanding of the factors influencing impulse buying behavior in the FMCG sector. Multiple regression analysis allowed for the examination of the combined and individual effects of the independent variable (Color), the moderating variable (Culture), and their interaction on the dependent variable (Impulse Buying).

Multiple regression analysis is particularly advantageous in this context as it accommodates the examination of multiple predictors simultaneously (Demura, 2013,). By including both color perception and cultural factors as predictors, the analysis captures the intricate interplay between these variables and their impact on impulse buying behavior. Additionally, the inclusion of interaction terms enables the exploration of potential synergistic effects, providing valuable insights into the nuanced nature of consumer decision-making processes.

The utilization of multiple regression analysis underscores the rigorous and methodical approach employed in this study. By employing this advanced statistical technique, the research aims to provide robust and reliable findings that contribute to the existing body of knowledge on consumer behavior in the FMCG sector.

Measurement Model:

The measurement model employed in this study aimed to rigorously assess the reliability and validity of the scales measuring General Perception of Colors, Impulse Buying, and Cultural Factors.

Reliability Analysis:

Cronbach's Alpha was computed to evaluate the internal consistency of each scale, providing valuable insights into the reliability of the measurement instruments.

General Perception of Colors:

The Cronbach's Alpha for the General Perception of Colors scale, comprising three items, was 0.72. This indicates a satisfactory level of internal consistency, affirming the reliability of the scale.

Impulse Buying:

The Impulse Buying scale, consisting of four items, demonstrated strong internal consistency with a Cronbach's Alpha of 0.79. This suggests a high level of reliability in measuring impulse buying behavior.

Cultural Factors:

The Cultural Factors scale, encompassing three items, exhibited a Cronbach's Alpha of 0.68, indicating an acceptable level of internal consistency. This suggests that the items reliably measure the underlying construct of cultural factors.

Confirmatory Factor Analysis (CFA):

CFA was employed to validate the measurement model, ensuring that the observed variables reliably measured their respective latent constructs. The model fit indices were assessed to confirm the adequacy of the measurement model.

Results:

6.1 Model 1:

R-Square: 14%

F-Value: 16.896, $p < 0.05$ (significant)

Coefficients: Color has a significant positive influence on Impulse Buying (Beta = 0.374).

6.2 Model 2:

R-Square: 29.2%

F-Value: 21.257, $p < 0.05$ (significant)

Coefficients: Both Color and Culture have significant positive influences on Impulse Buying (Color Beta = 0.249, Culture Beta = 0.41).

The results of the regression analysis unveiled a significant and noteworthy relationship between color perception and impulse buying ($\beta = 0.374$, $p < 0.001$). The subsequent model, which incorporated cultural factors as a moderating variable, exhibited an enhanced fit ($R^2 = 0.292$). Both color ($\beta = 0.249$, $p = 0.005$) and culture ($\beta = 0.41$, $p < 0.001$) emerged as significant contributors, shedding light on their individual and combined impact on predicting impulse buying behavior.

General Perception of Colors:

The General Perception of Colors scale exhibited a strong factor loading for each item, ranging from 0.66 to 0.78, indicating that the items effectively measured the latent construct.

Impulse Buying:

The Impulse Buying scale demonstrated robust factor loadings for all items, ranging from 0.71 to 0.83, providing evidence of the reliability and validity of the scale.

Cultural Factors:

The Cultural Factors scale displayed satisfactory factor loadings for each item, ranging from 0.62 to 0.75, affirming the effectiveness of the scale in measuring cultural factors.

Conclusions:

The comprehensive examination of the interplay between color perception, cultural factors, and impulse buying behavior in the Fast-Moving Consumer Goods (FMCG) sector has yielded insightful conclusions. The statistical analysis unveiled a significant relationship between consumers' general perception of colors and their inclination towards impulse buying. Moreover, the introduction of cultural factors as a moderating variable accentuated the nuanced influence of societal values on the color-impulse buying dynamic.

The study's findings highlight the pivotal role of color schemes in shaping consumers' initial impressions, attracting attention, and influencing purchasing decisions impulsively. The identified positive correlation between the General Perception of Colors and Impulse Buying underscores the strategic importance of color selection in marketing and merchandising within the FMCG sector.

Furthermore, the moderating impact of cultural factors unveils the intricate layers of consumer behavior. The cultural lens through which individuals perceive colors significantly contributes to the overall impact on impulse buying. Brands and marketers should be cognizant of these cultural nuances, tailoring their strategies to align with the diverse perspectives that color may evoke.

In essence, the study sheds light on the dynamic nature of consumer decision-making, emphasizing the need for a holistic understanding that encompasses both intrinsic color preferences and external cultural influences. This nuanced perspective equips marketers with valuable insights into the multifaceted factors shaping consumer behavior within the FMCG sector.

Implications:

The implications drawn from this research carry significant ramifications for practitioners in the FMCG sector, offering actionable insights into strategic marketing and product placement.

1.Strategic Color Branding:

The study advocates for strategic color branding, where companies can leverage the identified preferences to enhance brand recognition and recall. For instance, a brand that aligns its packaging with culturally resonant colors may enjoy increased consumer trust and preference.

2. Cultural Sensitivity in Global Marketing:

In a globalized marketplace, understanding the cultural nuances attached to color is imperative. For instance, a product marketed in Asia with an awareness of culturally significant colors may witness heightened consumer engagement compared to a standardized approach.

3. Seasonal and Trend-Based Marketing:

The correlation between impulse buying and alignment with current trends suggests an opportunity for brands to capitalize on seasonal or trend-based color schemes. For example, a limited-edition packaging featuring trendy colors might trigger increased impulse purchases during specific times of the year.

4. In-Store Display Optimization:

Retailers can optimize in-store displays by strategically using colors to evoke desired emotions. Warm colors inducing a sense of urgency can be strategically placed for promotional items, while neutral colors may be employed in sections promoting relaxation and calmness.

5. Cultural Integration in Packaging Design:

Packaging design should not only consider color aesthetics but also integrate cultural elements. For instance, a beverage brand might incorporate culturally symbolic colors to enhance the perceived freshness and quality of its products.

By heeding these implications, companies can enhance their market positioning, build stronger brand-consumer connections, and ultimately drive impulse buying behavior in the highly competitive FMCG sector. The integration of color and cultural factors into marketing strategies will not only contribute to increased sales but also foster a deeper understanding and resonance with diverse consumer segments

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