Color and POP: The Effective Use of Colors for Point of Purchase Displays

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ABSTRACT
This research examines the impact of color on consumer attention to point of purchase displays. Over 500 customers were observed as they walked passed one of 17 point of purchase displays. Attention level varies significantly by background color of point of purchase display with blue/green backgrounds attracting the most attention and white backgrounds attracting the least attention. Font or accent color did not appear to significantly influence attention in this study.

INTRODUCTION
POP and Brand Image
Choosing the right color for Point of Purchase displays (POPs) and packages is important. According to Thomas Madden, many people tend to create brand images based on what they see rather than the actual performance of the products or the services (Madden, et al., 2000). Colors used in a company logos, POP displays, and advertisements have great impact on creating brand image. Jim Peter, editor of Brand Packaging magazine says that, “People do not take time to read anything.” The real communication tool for the marketers and packagers are colors and shapes of the package (Spreitzer, 2001). Especially for point-of-purchase displays, appearance determines the attention rate. Content message and description of the product are not as important to the customers as colors viewed.

There are three keys to assess the color performance used in promotions. The first key is if targeted customers like the color or not. The second key is whether the customer can remember the color or not. Good retention of the POP color often results in repeat purchase of the product. And the third key is how well the customer can associate the colors of the POP to the actual product (Whitfield & Wiltshire, 1990). If the color of the POP is not tied to the image and color of the product or company, the function of transferring attention from the POP to the product may fail. Consistent use of the same color for promotion and products is necessary to build brand image efficiently.

Images of products are often created by the product packaging, product color, and advertising tools, including point-of-purchase displays (Cheskin, 1954, pg. 43). It is very easy for customers to transfer the sensation from the POP to the product. In many cases the reason a company changes its logo color is to change the perception of the company or to attract a different market segment. Xerox Corporation changed the color of the company logo from blue to red. The color red resembles hot, exciting, and a happy atmosphere. The company’s intention was to promote its innovativeness and variation of product lines (Madden, et al., 2000). Hello Kitty, Sanrio Company’s most successful character, which was first introduced in 1974 targeting children 12 year olds and younger, originally was white with a red background, (Sanrio, 2003). While new characters and figures were being introduced in the market one after another, Hello Kitty was losing its ability to retain the newer generation’s attention. The character, with white on a red background, was seen as childlike, and Sanrio Company had to create a new brand image that could also satisfy the needs of young adults. In 1992, Sanrio Company introduced Hello Kitty with a pastel pink background that targets teenagers as well as working females. Use of a soft-touch color for the background of the character effectively transformed its brand image from “childlike” to “young adult,” attracting wider generations in Asian countries. By the year 1994, Sanrio Company regained 90 percent of its original sales. Today, the pink Hello Kitty has more than 500 product lines, including a limited edition automobile, credit card, laptop computer, and rice cooker, which strictly target adult customers (Ko, 2002).
Importance of Color

Colors are very important and are studied in physiological and psychological fields, as well as the marketing field. Approximately, 80 percent of all the information a person receives is visual. A person’s optical data includes shapes and colors with color information making up more than 40 percent of this data (Kueppers, 1982). Marketers understand that individual color perceptions and preferences are created based on a combination of optical, sociological, and psychological features. Using the right color in product promotions can greatly contribute to company sales. Advertising materials located inside retail stores, especially, can directly affect the customer’s purchasing mood and decision. Approximately $12 billion is used solely for point-of-purchase displays every year, which ranks as the third largest expenditure, after TV and print advertising (Marketing Mix, 2003).

Accompanied with an effective color choice, POP displays can have the best exposure to customers. Leatrice Elisman, a director of the Pantone Color Institute, denotes that “emotion and color are strongly related,” and it is important that the color appears to the customer at the particular moment of purchasing (Sanabria, 2001).

Purpose of Project

The objective of this project is to gain an understanding of which colors are commonly used for point-of-purchase displays (POPs) and customer reaction to these colors in the retail setting. Finding out general rules for the relationship between colors used in POPs and effectiveness of these colors will allow implementation of more sophisticated promotions in the marketplace.

Psychological and Social Color Associations

Use of proper colors can greatly enhance the productivity and comfort in the business setting and in human life. Individuals tend to have different color preferences for their clothing, furniture, and cosmetics. However, many universal reactions and images of colors can also be found (Birren, 1950, pg. 141). Some reactions or images are socially or culturally based and others may simply be unconscious human reactions. Information on color associations provided in the following section was collected from multiple sources including color specialists and nonprofit color research organizations. (See sources listed in bibliography). While most sources supported and complemented each other in regard to color associations, some color associations appear to be controversial.

Orange indicates cheapness, distressed, disturbed, and upset. This is because bright orange reflects a lot of light. Orange is also seen as a happy color and it indicates passion, sensuality, and paganism. Orange-yellow has the best visibility among all the colors.

Blue indicates tender, soothing, wealth, trust, integrity, security, dependability, efficiency, happiness, high quality, and distinction. Blue is the most popular color among Americans but does not remain in memory well.

Red indicates excitement, passion, extroversion, stimulating, hot, festival, vibrant, active, and love. “In the red” is a phrase insinuating financial losses. Wearing a red tie suggests shrewdness and ambition. African Americans prefers red more often than White Americans.

Purple indicates stateliness and dignity. It has an expensive image in Japan, China, and South Korea, but has an inexpensive image in the United States. African Americans prefer this color more than White Americans.

Figure 1. Hello Kitty—Original and New Color Schemes
Yellow is associated with cheerful, jovial, joyful, happy, and sunshine. Use of yellow can be seen as fun-loving and having a good sense of humor. It is the most distracting color and gains the greatest visibility when combined with either blue-black or violet-blue.

Black is associated with powerful, strong, masculine, masterful expensive and formal. Because of the darkness, some people associate this color with passivity or sadness as well.

Gray is seen as a very serious and formal color. The color indicates strength, exclusivity, success as well as passivity.

Brown is perceived by many people in the U.S. as sad.

White implies pureness and cleanliness. This color is thought of as the most basic color and it is favored by many industries. This color creates an illusion that widens spaces when used as wall paint. White is the third most popular color in the U.S.

Green implies nature and relaxation. Green stands for balance, fairness, and calmness. It is the second most popular color, after blue, for Americans according to the Color Marketing Group.

Pink denotes health. “In pink” is a phrase insinuating good health. Pink has the image of a soft fluffy bunny and the use of tinted pastel pink for walls may reduce a person’s blood pressure.

Color Visibility and Effectiveness

Color visibility is determined by the hue and the color category such as red or purple. A pure hue indicates a primary color with no shades, tints, and tones (Cheskin, 1954, pg. 13). Some colors have higher visibility than others and darker hues usually have better visibility than lighter hues. Red, green, blue, and yellow are known as the four primary hues. A pure hue has greater visibility and power of attraction than tinted or darkened colors. In terms of preference, color research has shown that when a person likes the pure hue of a color, she or he will typically like the same color in different hues (Cheskin, 1954, pg. 17). For example, if a person likes the green color, she or he will have a positive attitude toward all the variations of green, including tinted green and dark green. Within various pure hues, visibility and effect on human eyes is not the same. Normally, hues with greater visibility easily fatigue eyes due to excessive stimulation of the eyes (Color Matters, 2003). Pure hues with strong visibility can negatively affect people’s feelings when they are exposed to them for a long time (Dickey, 1999).

Warm Colors. Louis Cheskin, an author of the Color Guide for Marketing Media denotes in his book that generally, warmer colors have more visibility than cooler colors. Warmer colors include yellow, orange, and red. Cheskin says that yellow objects can catch people’s attention better than any other colors (Cheskin, 1954, pg. 33). His experiment concluded that yellow is more easily retained and enhanced in human memory; conversely blue can easily diminish in memory (Cheskin, 1954, pg. 35). Along with attention-getting, bright orange-yellow and yellow are also known to be the most distracting and irritating of colors. People perceive yellow or orange-yellow as “sunshine,” “warmth,” and sometimes “cheap.” Thus, use of yellow or orange POP displays for luxury products and special services may occasionally result in a decrease in sales. These colors may be effectively used in discount stores or fast food restaurants to indicate their products are a good deal or inexpensive. This theory may explain the yellow smiley face used as the trademark for the most successful multinational discount store -- Wal-Mart. For another example, Wienerschnitzel, a hotdog restaurant chain reported a 7 percent increase in sales after adding a little orange in its company logo (Madden, et al., 2000).

Cool Colors. Cool colors include blue, green, and black and are favored by U.S. citizens due to their calming functions (Madden, et al., 2000). Blue is often used in financial institutions such as banks, because the color indicates wealth, trust, and security (Madden, et al., 2000). Cool colors or lighter colors can also make an object look bigger. Those colors create the illusion of space (Malay Mail, 2000). An interior coordinator, Judith Miller, suggests changing the wall color to pale gray because of its functionality. The color pale gray has one of the least visibilities and is not closely related with a pure hue; thus, it is comforting to the human eye (Miller, 2000). However, the use of soothing and relaxing colors in retail stores can be too comfortable to the customers’ eyes and those POP displays may become easy to miss or ignore.

Combination Effect of Color. While each color is associated with specific meanings, images, and reactions, another reaction or image, whether conscious or unconscious, can be created when used with another color. Most
POP displays used in the market combine several colors. By choosing the right combination, visibility of the POP can increase significantly. For example, pink increases its visibility when adapting to a black background while it decreases in visibility when adapting to a red background. According to Louis Cheskin, the author of the *Color Guide for Marketing Media*, yellow or orange-yellow with a blue-black or violet-blue background is more visible from a distance than any other combination of colors (Cheskin, 1954, pg. 32). The image associated with the pairing of two or three colors may be based on previous social or cultural experiences. For example, in Japan the combination of red on white symbolizes celebration and is often used for weddings or New Year celebrations. In China, the combination of red on black shows the contentment and is often used for wedding invitations. In Mexico, red and white indicates the Sacred Heart of the Catholic Church (Madden, et al., 2000).

Finding out the most effective color to use in the POP is not as easy as finding out the most “attention getting color.” Knowing how people associate colors that they see in the point-of-purchase display with product image is important and may change when combined with other colors. Likewise, an attention getting color strategy may be perceived differently in different industries due to different brand images and different target demographics. Even if the POP display is eye catching, it can lose the customer’s interest if it is not appropriate or offends customers due to eye-soaring or flashy colors.

**PRIMARY RESEARCH**

Based on the secondary research, several predictions and hypotheses were made.

*Hypotheses*

**Hypothesis 1: Gender.** Since some point-of-purchase displays mainly target toward one gender, such as men’s shirts and Barbie dolls, there may be some differences in attention based on gender of the customer. Also, females are likely to spend a longer time on shopping so there may be significant differences by gender for the gender-neutral products as well.

\[ H1: \text{There is a relationship between gender and customer attention level.} \]

**Hypothesis 2: Color.** Testing this hypothesis is very crucial for clarifying whether color has any impact on attention paid to point-of-purchase displays. Also, by documenting attention levels by color category, the most effective and attention getting color can be determined. Secondary research suggests that yellow or orange-yellow has the most visibility compared to other colors in similar conditions.

\[ H2: \text{There is a relationship between colors and visibility.} \]

**Hypothesis 3: Color Combinations.** According to the secondary research, a yellow-orange font with a blue-black or a violet-blue background has the greatest visibility. How effective or how significant those colors are will be tested with this hypothesis and the best combination of colors will be determined if there is any.

\[ H3: \text{There is a relationship between color combination used in a display and visibility.} \]

**METHOD OF OBSERVATION**

In order to test the hypotheses developed from the secondary source materials, observational research was conducted. The observations took place in Wal-Mart, ShopKo, and K-Mart in the La Crosse area on three Saturday evenings. All the retail stores used were discount stores, and these stores are usually identified as competitors. Choosing a similar type of retailer to observe provides a similar buying environment and buying behavior. Saturday evenings were chosen for the observation day since it is a popular shopping time for many people. During this time, most people are not in as much of a hurry as during the week, and more customers may be paying better attention to point-of-purchase displays. The observation schedule is shown in the table below.
Table 1. Data Collection Schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Store</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday</td>
<td>March 15</td>
<td>7:30-7:45pm</td>
<td>Wal-Mart</td>
<td>#1, 2</td>
</tr>
<tr>
<td>Saturday</td>
<td>March 29</td>
<td>7:00-8:30pm</td>
<td>ShopKo</td>
<td>#3-6</td>
</tr>
<tr>
<td>Saturday</td>
<td>March 29</td>
<td>8:50-9:30pm</td>
<td>K-Mart</td>
<td>#7-10</td>
</tr>
<tr>
<td>Saturday</td>
<td>April 5</td>
<td>7:30-8:00pm</td>
<td>K-Mart</td>
<td>#11-12</td>
</tr>
<tr>
<td>Saturday</td>
<td>April 5</td>
<td>8:30-9:20pm</td>
<td>Wal-Mart</td>
<td>#13-17</td>
</tr>
</tbody>
</table>

A total of 17 POP displays and 506 customers were observed through this study. For each POP, 30 customers passing within approximately three feet of the POP were recorded. According to Inland’s theory, a company that specializes in promotions including POP strategies, 70 percent of purchasing decisions are made within a three-foot zone of the product (Marketing Mix, 2003). Due to the busy traffic in the walkways at Walmart, a systematic sample of one out of every two customers was recorded. For each observation the following information was recorded: gender, store, product, product type, location of the POP, pricing strategy, the POP deal, the POP size, the POP type, the POP color (dominant color and accent/font color), number of POP dimensions (1 dimension vs. 2 dimensions vs. 3 dimensions) and degree of customer interest and attention.

**POP Location.** Observations were only chosen from either main walkways or end of aisles. The primary reason for choosing these locations was to eliminate possible dissimilar shopping patterns of customers within the aisles compared to main walkways. Another reason these locations were selected was due to the availability of larger sized POPs. In main walkways, the POPs are relatively larger and usually get more attention from customers.

**Pricing Strategy.** Before recording the pricing strategy, the mean price was calculated based on all or 20 competing products available in the store. To be classified as regular priced, the product (brand) price was within 10 percent of the mean product price for that product category. Similarly, if the product price is 10 percent cheaper than the mean price, it was noted as a discount-priced product, and if the price is 10 percent more expensive than the mean price, the item is considered a premium-priced product. The category of pricing strategy indicates whether the product is more expensive than the mean price of like products (premium pricing), similar to others (regular pricing), or cheaper than others (discount pricing).

**POP Deal/No Deal.** Typically customers are more likely to pay attention to products and POP displays selling products on deal (e.g., sale), especially when they are not loyal to a certain brand. To be considered “deal pricing,” the message written in the POP display must indicate the discount price compared to the original market price. Some customers may change their purchasing behavior and attention level to the POP when exposed to a great product deal or sale.

**POP Type.** POP displays are sorted into three types: a poster, a stand from the floor, or a shelf display.

**POP Dimensions.** The dimension of the display could be 1 dimensional, 2 dimensional or 3 dimensional.

**Color.** Two separate entrees for color was recorded due to possible variations in attention based on color dominance (background vs. accent/font) and color combination used in the POPs. Some color combinations increase visibility when combined properly, while ineffective color combinations can reduce visibility of the POP.

**Sizes of the POPs.** Size is recorded since more attention is expected to be drawn by larger POP displays. A small display is one less than 20 inches square, a medium display is 20-25 inches square and a large display is one that is larger than 25 inches square.

**Attention Level.** Attention level is the dependent variable and primary variable of interest in this study. Customers were coded into three categories. The highest attention level (2) is when a customer stops and shows an obvious interest in the product or the POP display. A medium attention level (1) occurs when customers move their heads and give a brief look to the POP display. The least attention (0) is recorded if the customer ignores the POP.

**Cross Tabulation Findings**

The data was tested using cross tabulation tables and chi-square analysis. Several were not statistically significant in term of influencing customer attention level. These include: gender, store, POP deal, POP type, POP location, POP accent/font color, and POP dimension. The variables having statistically significant relationships with customer attention level were: product, product type, pricing strategy, and POP dominant color. In Figures 2-5, attention level 0 (ignore or don’t notice) is constantly shown in light blue, level 1 (brief look) is shown in purple, and level 2 (stop and look) is shown in yellow.

**Gender.** Customers’ attention level based on gender is visualized in Figure 2.
The graph shows a very similar pattern of attention for male and female customers. A relatively large sized point-of-purchase display, like the ones observed in this study (see Figures 7-21), received attention from approximately 40 percent of the customers passing within three feet of the POP display.

**Product Type.** Attention varied significantly by product as shown in Figure 3. Products that were ignored by approximately 70 percent of customers during the observation were Hanes, Pantene, and pills - One a Day and a calcium pill. While DVDs had the most direct attention (level 2), when attention levels 1 and 2 were combined Kodak film and the Ever Start (car battery) had the most attention.

**Pricing.** Pricing level was another statistically significant aspect determined by the 95 percent confidence level. This indicates that customers react differently when the product promoted on the POP are cheaper or more expensive than other similar products in the same retail store. Not available or N/A in Figure 4 indicates that there was no other competing product to compare to determine its pricing strategy.
**Color.** SPSS showed that there is a relationship between background or dominant color of the POP and customer attention level.

**Figure 5.** Attention Level by Color

Figure 5 indicates the relationship between attention level and the dominant color of the POP. It tells that yellow was ignored the least (level 0). This may be because the color yellow has the highest visibility and catches brief attention the most compared to other colors as was discussed in the previous section. Attention level 2 shown in Figure 6 better visualizes colors that made customers stop and look at the POP or the products.
Figure 6. Stop and Look Attention by Color

As it shown in the pie chart, blue and green as a background color received the most attention and white received the least attention. From the observations in this study, blue and green were used most frequently as the background for POP displays and this strategy seems to work well.

FINDINGS AND CODING

Pictures of the POP displays observed are shown below accompanied with important data. It clarifies how each POP was coded in the analysis as well as how effective these POP displays were at attracting attention. Each POP picture is numbered according to order of observation.

#1
Store: Wal-Mart
Product Type: DVD
Location: Main Walkway
Dominant/Background Color: Blue/Green
Font/Accent Color: Red/Wine Red
Stop & Look Percent: 36.7%
Comment: Mainly somewhat old DVDs
66% cheaper than mean price of other DVD

Figure 7. DVD
#2
Store: Wal-Mart
Product Type: CD
Location: Main Walkway

Dominant/Background Color: Red/Wine Red
Font/Accent Color: Yellow/Orange

Stop & Look Percent: 13.3%
Comment: Not many people showed interest

Figure 8. CD

#3  <Picture Not Available>
Store: ShopKo
Product Type: Kodak Film
Location: End of the aisle

Dominant/Background Color: Yellow/Orange
Font/Accent Color: Red/Wine Red

Stop & Look Percent: 16.7%

Figure 9. Shirt

#4
Store: ShopKo
Product Type: Men’s shirt
Location: Main Walkway

Dominant/Background Color: Red/Wine Red
Font/Accent Color: White

Stop & Look Percent: 3.3%
Figure 10. Pepsi

#5
Store: ShopKo
Product Type: Food
Location: Main Walkway

Dominant/Background Color: Blue/Green
Font/Accent Color: White

Stop & Look Percent: 26%

Figure 11. Toy Barbie

#6
Store: ShopKo
Product Type: Toy
Location: End of the aisle

Dominant/Background Color: Pink
Font/Accent Color: Blue/Green

Stop & Look Percent: 19%

Figure 12. Cosmetic

#7
Store: K-Mart
Product Type: Cosmetics and Hair Product
Location: End of the aisle

Dominant/Background Color: Pink
Font/Accent Color: Beige

Stop & Look Percent: 20%
#8 <Picture Not Available>
Store: K-Mart
Product Type: Expert Loreal Cosmetics and Hair Product
Location: End of the aisle
Dominant/Background Color: Red/Wine Red
Font/Accent Color: Pink
Stop & Look Percent: 13.3%

Figure 13. Battery, Energizer

#9
Store: K-Mart
Product Type: Battery
Location: End of the aisle
Dominant/Background Color: Black
Font/Accent Color: Pink
Stop & Look Percent: 13.3%

Remark: Both batteries (#9 and #10) had the same attention rate of 13.3%.

Figure 14. Battery, Duracell
#11
Store: K-Mart
Product Type: Cosmetics and Hair Product
Location: End of the aisle
Dominant/Background Color: White
Font/ Accent Color: Gold/ Beige
Stop & Look Percent: 0%
Comment: Using similar colors in background and font color did not attract the best attention.

Figure 15. Hair Product, Pantene

#12
Store: K-Mart
Product type: Food
Location: Main Walkway
Dominant/Background Color: Red/ Wine Red
Font/ Accent Color: Blue/ Green
Stop & Look Percent: 6.7%

Figure 16. Food

#13
Store: Wal-Mart
Product type: Food
Location: Main Walkway
Dominant/Background Color: Blue/ Green
Font/ Accent Color: White
Stop & Look Percent: 26%
Comment: This POP observation was to see if there is any difference in customer reactions for similar products from Wal-Mart and K-Mart (#12).

Figure 17. Oreo
Figure 18. Pill, One-a-Day

#14
Store: Wal-Mart
Product type: Pill
Location: Main Walkway

Dominant/Background Color: Blue/ Green
Font/Accent Color: Yellow/ Orange

Stop & Look Percent: 0%

Figure 19. Pill, Calcium

#15
Store: Wal-Mart
Product type: Pill
Location: Main Walkway

Dominant/Background Color: Blue/ Green
Font/Accent Color: Yellow/ Orange

Stop & Look Percent: 6.7%

Figure 20. Pill, Allergy

#16
Store: Wal-Mart
Product type: Pill
Location: Main Walkway

Dominant/Background Color: Pink
Font/Accent Color: White

Stop & Look Percent: 10%
CONCLUSIONS
This research suggests the components that statistically influence customer attention include the product, the product type, pricing strategy, and the dominant color of the POP. When developing a POP promotional plan, an effective pricing strategy and proper use of color may increase customer attention while shopping. A blue/green background received the most attention and a white background received the least attention. As was discussed in the secondary research section, blue and green is also the most favored color by Americans, and therefore, may be the best color to use for the POP background to earn attention.

In this study, some components were found to not significantly influence customer POP attention. These components include gender of the customer, the store, the POP deal, the POP type, the POP location, the POP font, and the POP dimensions. Regarding the POP location, this research was limited to end of the aisle and main walkways. There may be a difference in attention by location if within-aisle POP displays were observed.

LIMITATIONS
After completion of the research, there are still some things that are not clear or are ambiguous. During the research, I tried to cover as many dependent variables as I could; however, there are several situations that I could not assess. Those situations include the mood of the customer, special needs of the customer, past actions of the customer, and personal product preferences. Mood of the customer changes from day to day, minute to minute, and it is almost impossible to track. The customer could be angry and may not pay attention to the POP due to mood or time constraints.

The customer may need a specific product and may look at the product and the POP display, regardless of the display characteristics. For example, if it were raining outside, a POP related to rain products such as an umbrella may receive more attention on that specific day.

Also, it is hard to observe past action of the customer. The customer may not pay attention to a POP if he/she has already seen the POP or has recently purchased the product. Likewise, a customer may look at a POP because the person recently purchased the product and was satisfied so is willing to buy more. My assumption during the observation process was that there was no change in customer attitude when encountering a POP for a second or third time.
BIBLIOGRAPHIC REFERENCES


