

THE IMPORTANCE OF COLOR IN PRODUCT CHOICE AMONG YOUNG HISPANIC, CAUCASIAN, AND AFRICAN-AMERICAN GROUPS IN THE USA

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Abstract

Our research paper focuses on understanding the importance of color in product decision making among Hispanics, Caucasians and African-Americans who are under 25 years of age in the U.S. We include a literature review and survey results for young adult ethnic groups. Our analysis indicates that color is very important when buying certain product categories for the young adult population.

Keywords: Marketing, Consumer Behavior, Color and Product Choice, Young Ethnic Consumer

INTRODUCTION

The market for young ethnic consumers has become a very important consumer segment in the U.S. This segment has been a key demographic in terms of both size and expenditures for the past decade. According to the U.S. Census, the number of young consumers, those between the ages of 15 to 24, has soared to above 43.6 million presently (U.S. Census 2010). They are realistic, optimistic and exhibit a strong need for individuality in their self-expression. They spend their money primarily on clothing, video games, magazines, food, soft drinks and snacks (www.sideshare.net). They have money to spend and they influence household spending of big and small purchases. They also influence 81% of family apparel purchases and 52% of other purchases such as family cars (Carter, 2011). Marketers have been aiming at and targeting this diverse and growing crucial age group not only in the U.S. but also around the world. Marketers appreciate these young adult consumers because they are trendsetters in fashion, music, entertainment, ideas and attitudes. Many companies want to keep them as customers as they age (Kotler and Keller, 2012).

The U.S. population is highly ethnically and racially diverse. As of the 2010 Census, the U.S. population was 63.7% White, 12.2% African American and 16.3% Hispanic. The Hispanic population grew 43% between 2000 and 2010. It is now 16.3% (50.4 million) of the population and expected to make up 18.9% of the population by 2020 (Kotler and Keller, 2012). According to the Census Bureau, the U.S. Hispanic population is projected to reach 132.8 million by 2050 which would be 30% of the nation's total population (Westlund, 2009). The examination of racial and ethnic group distribution nationally shows that the non-Hispanic White population is still numerically and proportionally the largest major race and ethnic group in the U.S. Overall, the U.S. population is becoming more racially and ethnically diverse over time (Census, 2010).

LITERATURE REVIEW

Marketers know color has a strong power to create brand image, affect the buyer's decision making process and change the mood of consumers. Color can contribute to differentiating products from competitors and creating positive or negative feelings about products (Grossman and Wisenblit, 1999; Singh, 2006). Demographic differences such as age, gender and ethnic group cause consumers to accept and perceive color differently. Young people are more open than their elders to experiment with color. Perception of color is different between age groups, for example: red represents love and blood for teens but blood and passion for the 55 and older age group. In the same research, young adults prefer different shades of blue than older age groups. According to recent studies, there are specific ethnic differences in color choice (Silver, 1998; Crozier, 1996; Jemason, 2005). Hispanics are usually drawn to brighter, stronger, more intense colors. African Americans prefer deeply saturated colors and Asian Americans have a significantly lower preference for green than any other ethnic segment. African Americans and Hispanics lean proportionately more toward purple, Asians toward pink and Caucasian toward green.

Blue is the number one overall choice of color by all ethnic groups. Ethnicity also plays a role in the preference of different colors and different shades of blue among Caucasians, African Americans and Hispanics (Paul, 2002). Color is one of the primary purchasing considerations among consumers and is a very important factor for product choice (Clarke and Honeycutt, 2000). There are a number of studies that suggest that consumer color choice depends on demographic factors, such as age, gender, ethnicity and socio-economic level. (Boyatzis and Varghese, 1994; Krishna, 1972; Choungourian, 1968). Color response is learned and can be changed overtime (Adams and Osgood, 1973; Hupka, et al., 1997). In addition, color preferences can be affected by external factors such as geographic location (urban vs. rural) and climate (Wagner, 1988). Marketers know that an average consumer's decision to purchase a product is based, up to over 60%, on its color (Singh, 2006; pcimag.com).

In general, color has the potential to affect a consumer's overall perception of a product and the persuasiveness of purchase decisions (Sable and Akcay, 2010). Color has different meanings and perceptions in different cultures (Aslam, 2006; Madden, et al. 2000). The knowledge of consumers' color choices enables marketers to identify and offer the right product color. Color is also used to attract, draw attention, create a purchase intention, and desired atmosphere in retail stores (Bellizi, et al., 1983; Kerfoot, et al., 2003). The importance of color is a function of the average life and price level of a product. Consumers are more likely to be focused on color in their choice of high priced, high involvement and long life products. In contrast, for low involvement products consumers are more flexible in their choice (Grossman and Wisenblit, 1999). In general, understanding color choice and responses of consumers for various products has become very complicated because consumers have developed a wide range of color associations for various products. Marketers should be aware that color is more important for value-expressive products as opposed to utilitarian type products (Ogden, et al., 2010; Akcay, et al., 2011).

HYPOTHESES

We would like to test the following hypotheses:

1. Color is a very important factor in the purchase of many products by young Hispanic, African American and Caucasian consumers.
2. Color preferences may vary by gender in the young consumer market.
3. The importance of color might vary by various ethnic segments in different product categories.

SAMPLE SIZE AND QUESTIONNAIRE

In this paper, we analyzed the importance of color in product purchasing decisions among the young adult ethnic population. We distributed 600 questionnaires and used convenience sampling among young adults with 477 usable questionnaires. The response rate was about 80%. The questionnaire was divided into four sections. The first section dealt with the importance of color for the young adult population when they make a decision about purchasing products. The second section asked respondents about the rate of importance for color in various product categories. The third section focused on favorite colors for different products that are frequently purchased by young adults. The last section covered demographic variables such as ethnicity, gender, and age. We can summarize the demographics as follows, 15% of the respondents were Caucasian, and 67% were Hispanic, 18% were African-American, with the remaining belonging to a few other ethnic groups such as Asians and Native Americans. Forty four percent of respondents were male and 56% were female. About 69% of them grew up in an urban setting, 14% grew up in the suburbs, and the remaining 17% grew up in rural areas. An overwhelming majority of the respondents, 73%, are from low-income families. Ninety two percent of them had a high school education and the majority were under 25 years old.

METHODOLOGY

We used ordinal logit and multinomial logit models. We wanted to use these models because in determining the color preference it is important to control various other variables that might affect the color preference such as age, gender, where the respondents grew up, and family income. Also, it is much easier to analyze categorical variables using these models while controlling for other variables that might influence the color choice. We chose a model like this because of the categorical variables that we have in our survey. Logit models are derived from linear probability models, which are about dichotomous response variables. Because the expectation of a Bernoulli random variable is simply its probability, this can be used to advantage. Suppose Y is a Bernoulli variable and we would like to estimate it by a simple linear regression equation $Y_i = \beta_0 + \beta_1 X_i + u_i$. Then the conditional expectation can be interpreted as its success probability:

$$E(Y_i=1|X_i)=\beta_0+\beta_1 X_i=P_i$$

Yet there are some issues with this kind of interpretation because estimated values can be negative or greater than one. Hence, consider the representation of the probability in a different way

$$P_i=E(Y_i=1|X_i)=\beta_0+\beta_1 X_i=\frac{1}{1+e^{-(\beta_0+\beta_1 X_i)}}$$

But after all this can be simply stated as

$$\frac{P_i}{1-P_i}=e^{\beta_0+\beta_1 X_i}$$

When we take the log of the above expression, call it L_i we have the logit model – simply log it –

$$L_i=\log\left(\frac{P_i}{1-P_i}\right)=\beta_0+\beta_1 X_i$$

Now the way we interpret the estimated regressand in terms of odds is that positive values of L indicate increasing odds for one and negative values indicate decreasing odds for one.

The discussion above is for dichotomous outcome but we are interested ordinal multi values as well simply multinomial outcomes. In any case if the relevant coefficient is positive and significant then going from one category to the other increases the log odds.

In case of multinomial logit, the interpretation is very similar: this time the comparison is with respect to a base category. As we increase or change the categories the relevant coefficient will give the increase in the odds.

ANALYSIS AND RESULTS

It would indeed be somewhat important to give some demographics of the respondents. In Figure 1 we present the distribution of the importance of color across various product categories indicating the importance of color. Overall color is important when it comes topurchasing items. For about 50% of the respondents, color is either extremely important or very important and our regression results show that this does not depend on race, color, and income. The distribution is somewhat skewed to the right indicating that for the majority, it is either very important or somewhat important.

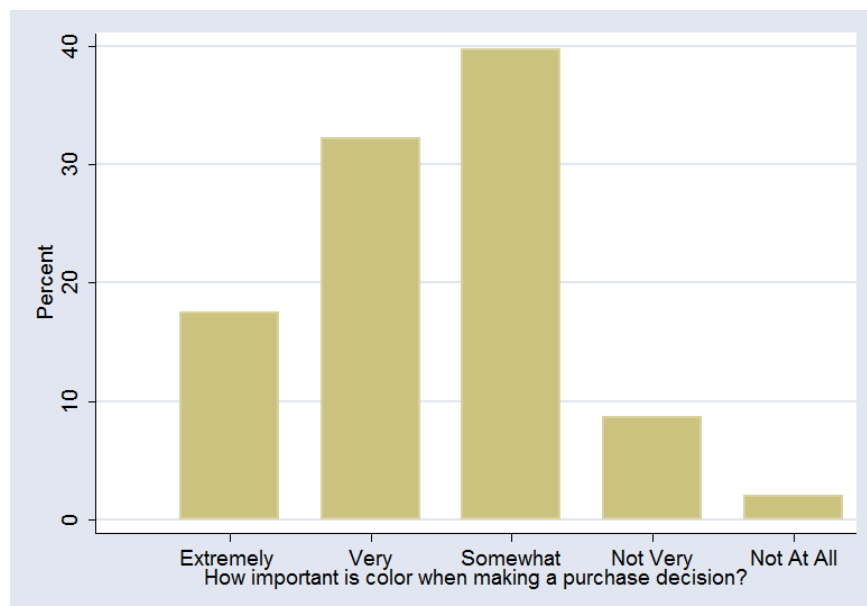


Figure 1: Distribution of the Importance Color

Figure 2 gives the distribution of the importance of color by gender. Surprisingly, nearly 60% of males said that overall color is important when buying an item; the percentage is a little more than 40% for females.

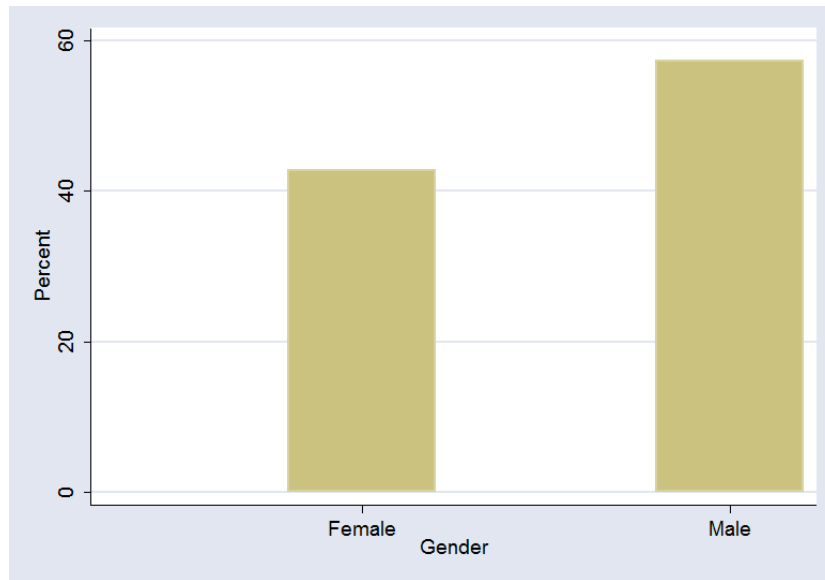


Figure 2: Importance of Color by Gender

In Figure 3, we present the distribution of importance of color by race. Color is most important for the Hispanic teenagers, 60% of them said they color was important, followed by African-Americans, of whom nearly 20% says that color is important when purchasing an item.

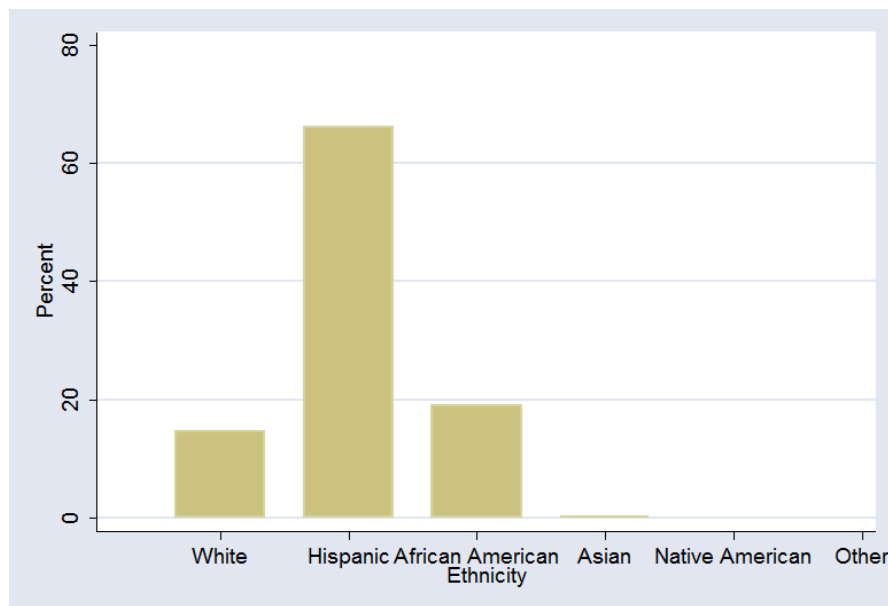


Figure 3: Importance of Color by Race

Our analysis indicates the following results for various categories of consumer goods:

- **Clothing-** For this category of goods color is very important, the distribution is left skewed, 85% of them say it is important in varying degrees. It is more important for girls than boys, but age reduces its importance. Favorite colors are red, blue, and black.
- **Shoes or Sneakers-** The distribution is left skewed; 80% of the respondents say it is extremely or very important. Importance is the same for girls or boys but by age its importance decreases. Favorite colors are black and white.
- **Cell Phones-** The results present a symmetric distribution; it is more important for girls than boys. No other demographic or socio-economic characteristic seems to be important. Black is by far the favorite color regardless of ethnicity or gender.

- **Backpacks or Hand bags-** The distribution is weakly left skewed. Color is more important for girls than boys. As household income increases it becomes more important. The color of choice is by far, black.
- **iPods, MP3 Players-** This somewhat presents a symmetric distribution. It is more important for girls. Color seems to be more important for those who grew up in the suburbs than someone who grew up in a rural area. Black is the favorite color but red, blue, white are also preferred.
- **Computers: laptop or desktop-** This variable yields a symmetric distribution but by age color becomes even less important. Black by far is very important.
- **Play Stations and Xbox-** Color is not at all important, resulting in a right skewed distribution. In this category it is more important for boys than girls. Black and white are favorite colors.
- **Watches-** The importance of color for this category of goods yields a symmetric distribution, no distinctions among the groups. Favorite colors are black and white.
- **Digital Cameras-** Color is important for certain categories within groups, yielding a right skewed distribution. It is more important for whites than others and for girls than boys. Favorite colors are black, gray, red, and blue.
- **Hats-** Color is somewhat important but not too much; more important for boys than girls. More important for people who grew up in rural areas or urban areas than the suburbs. By age its importance decreases. Favorite colors are black, red, blue, and white.
- **Umbrellas-** When buying umbrellas color is not very important; preferences yield a right skewed distribution. It is slightly more important for those who grew up in the suburbs. Favorite color is black.
- **House Paint-** The color of house paint is very important: 60% say extremely important or very important. It is much more important for girls than boys. More important for those people who grew up in rural areas than suburbs. Favorite colors are white, blue, red.
- **Bathing Suits-** This is another category of goods for which color is very important; much more important for girls than boys. No other distinguishable characteristics. Favorite colors are black, red, and blue.
- **Sunglasses-** Color is very important when choosing sunglasses. It is more important for Hispanics and African Americans than whites, for girls than boys. The favorite color of sunglasses is Black.

CONCLUSION

Overall our research indicates that color is important to individuals between the ages of 15 to 24, regardless of gender, demographics, or socio-economic background. Yet, it is still possible to distinguish levels of importance when it comes to product color. Girls rate color significantly more important than boys. Some important categories of goods for which color is more important for girls than boys are clothing, cell phones, backpacks or handbags, iPods or MP3s, digital cameras, house paint, bathing suits and sunglasses.

Another important trend that we observed is that the importance of color decreases by age: the older the person is the less important the color of the product becomes. For example, as the buyers get older color becomes less important for items such as computers, clothing, and hats. We also found that while young adults distinguished among various colors (black or white play stations, black, gray, red, or blue digital cameras) our results indicated that black is the most favorite color for many different items.

While we consistently observed that color is an important product characteristic, we did not find that preferences vary significantly on the basis of ethnicity except in one product category- sunglasses. The color of sunglasses is truly, statistically significant; more important for African Americans and Hispanics than Whites, and black is the most preferred color. For young adult ethnic consumers color choice appears to be very important for value-expressive products such as clothing, shoes, handbags, bathing suits, etc. Color choice is less important for utilitarian (functional) type products such as: cell phones, iPods, computers, game systems, MP3 players and, digital cameras among young ethnic consumers.

In conclusion we can say that product color is very important among young adults, more important for this age group than older age groups; more important for girls than boys, and race is not an important characteristic in determining color preference except in the case of sunglasses.

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