The role and significance of color when choosing cars

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The research was conducted in two steps; an online survey to determine how people choose color for car and whether they are willing to allocate more financial resources to get the desired color. The second part of the research was carried out at certain traffic locations of the city of Zagreb where it was examined which colors of cars were most presented. The results obtained in the online survey as well as collected data were compared with the research carried out by BASF, analyzing the color distribution on the European car market The results coincide with the study conducted by BASF, black, white and gray are the dominant colors.

Introduction

At the beginning of serial production of cars, color didn't play a role in the decision to buy a car. In the early 20th century, the first cars were produced mostly in darker color variants, the dominant color was black. In the middle of the 20th century, bright and vivid colors prevailed, while today customers are mostly choosing achromatic colors. Recently, metallic colors or colors with additional effects predominate. As the automotive industry has developed through history, the customer show needs for new and more pleasing colors. Today, car companies offer seemingly endless color choices, so even the most discerning customers can find the color for themselves. From traditional standpoints like black and gray to unusual colors like purple, orange and yellow, car manufactures are doing everything in their power to attract potential customers with their products. The existence of a wide range of color palettes raises the question of whether the consumer will choose a color of car based on a simple choice of color or whether the choice of color will reflect his psychology [1]. It has been proven that people have certain mental and physical reactions when experience colors Fehrman and Fehrman [2]. Difference in cultures also affect the experience of color. In western culture, white signifies purity and innocence, while in China and India is associated with death.

The research conducted with an online survey and collecting samples of cars on the streets with the aim of whether the preferences of customers regarding car colors are reflected in their car purchase. The obtained results were compared with the European research conducted by BASF.

With the mass production of cars, color did not play a significant role in buying cars. In the early 20th century, the first cars were produced mostly in dark colors, mostly dominated by black. Henry Ford's famous sentence was: "You can buy a Ford model T in any color as long as it's black." However, the first few years of production (1908-1913.) were produced in gray, red and green [3]. Blue and green colors were so dark that they looked more like black than blue and green. The black paint proved to be more durable, it was cheaper, more resistant to scratches and, thanks to nitrocellulose varnishes, it dried quickly, which enabled faster production of the car. At the time, Ford's goal was to produce a cheap and safe car that the average American worker would be able to afford.

After World War II, car industry developed quick and car buyers were looking for futuristic vehicles that were equipped with the latest technology. The cars had one or two colors and large chrome extensions. In 1995, over 1000 Ford car owners participated in the survey, the results confirmed that the most important characteristics were color and appearance of car. Some participants felt that light colors allowed greater visibility on the road, while others felt younger and more modern in colorful cars. There were customers who didn't like bright colors as well as chrome extensions. In 1954, Chrysler made two cars, Le Comte for men and Le Comtesse for women [4]. Although based on the same Chrysler Newport vehicle, Le Comte had more masculine colors like bronze and black, and La Comtesse had more feminine colors such as pink and white.

In the 1970s, there was a shortage of fuel and a sense of ecology developed, cars become compact, earth colors prevailed (brown, olive green and beige). In the 1980s, there was an increase in sales of minivans and the most popular colors were black and red [5]. The 1990's were a period of growth for SUVs.

BASF conducted a survey of what are the most popular car colors. BASF divided cars into 5 categories: small city and city cars, compact cars and sedans, luxury cars, sports cars and luxury cars. The goal of BASF's report is not just to uncover currently popular colors but to predict which colors will in vogue in the next few years.

The research was conducted in 2 steps with the aim of obtaining the results of the influence of colors on the car experience. The research was conducted at several intersections by counting cars and recording color in relation to the car class. Data collection was carried out in Zagreb on the main roads during traffic jams in order to collect as many cars as possible. Cars are divided to small city cars, city cars, compact cars, sedan cars, caravans, minivans, coupe, SUV, luxury cars and sport cars. 1630 car class and color were collected.

The second part of the research was conducted through an online survey. 637 participants participated in online survey. The first few questions were general, about gender, age, color and type of car, etc. The remaining questions relate to the car type and color offered. Each question contained one class of car and the colors (same for each type of cars). Participants rated the most appropriate color on a 5-point scale (grade 1 doesn't match at all, grade 5 is excellent).

Discussion

By monitoring the traffic, the representation of small city cars was 125, city cars 377, compact cars 266, sedan cars 198, caravans 318, minivan 74, coupe 35, SUV 160, luxury cars 70, sports cars 7.

The results of obtained data are presented in Figures 1-5, together in comparison with BASF results.

In the case of small cars, the largest presence of colors are white (26 %), red (16 %) and black (13 %). In the case of city cars, most colors refer to white (25 %), silver (24 %) and red (18 %). By monitoring the traffic of compact cars, the most cars were white (29 %), black (22 %) and silver (19 %). In case of sedan cars, silver color (31 %) is on first place, followed by black (21 %). In the case of caravans, silver is most present (35 %), followed by white (21 %) and black (18 %). It is similarly for rest of car types, expect for sports cars where black and red colors prevaile.
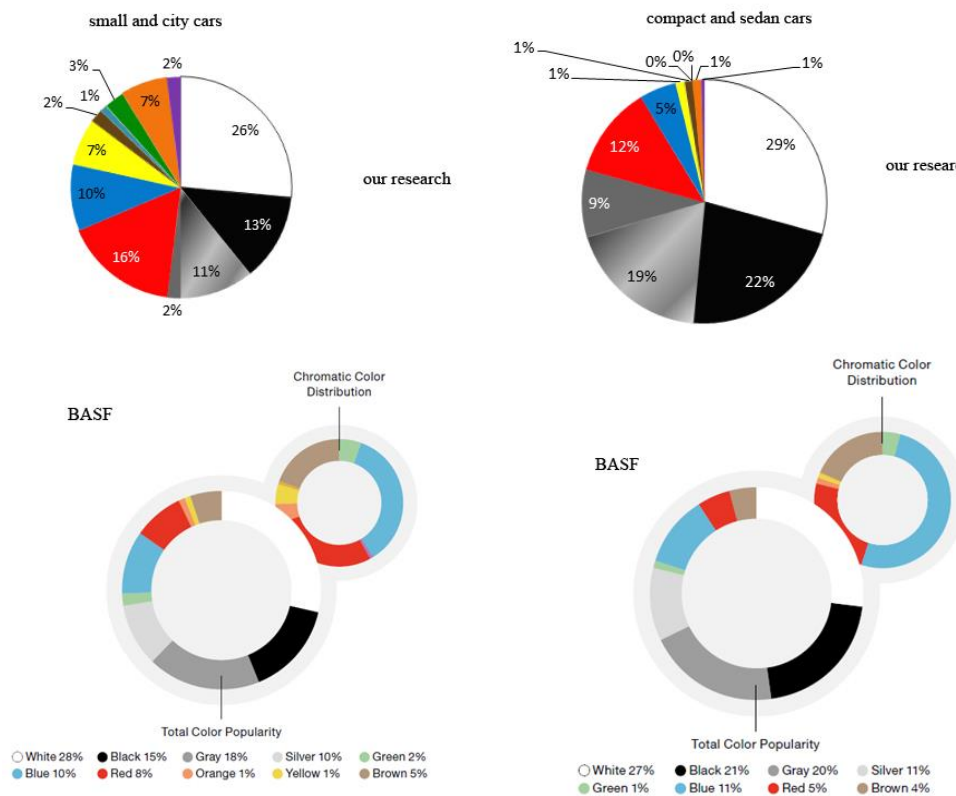

Figure 1 (left): Results comparison for small and city cars.
Figure 2 (right): Results comparison for compact and sedan cars.

The results compared to the studies conducted by BASF mostly coincide. Overall, white, black, gray and silver are still the most common colors. In small city and city cars, larger deviations are only present in gray and red. Differences in blue, red and gray have been noticed in compact and sedan cars. With luxury cars, there is a difference with white color.

637 participants partipicated in online survey, of which 76,5 % were women and 23,5 were men. Most of them were between ages 18-25 (70,2 %), followed ba 26.30 (20,6 %) and 31-40 (4,4 %). Among all cars types they had to choose the one that met their needs. Most participants (30,3 %) answered that compact cars would suit them best, while 27 % chose city cars. For most participants (47 8), car represents a "need" for them, while for 441 ot them it represents mobility. To the question "When choosing a car color, you are guided…" (multiple choice), most respondents (426) answered they choose a car with preferred color, while 249 of them choose base on existing experience (mainteace). The next question was about color they would choose for the car. In the first place with 41 % was mettalic color, followed by ordinary color without additional effects (27,3 %) while in third place was matte color (21 %). More participants have black car, followed by gray and blue. When asked "Would you set aide an average of 500-1000 euros more for the desired color of the car, 65,1 % of participants answered that they are not ready to set aside that amount. Most respondents (30,9 %) participants answered that they

would not buy old car with a color they don't like. The following questions are similar for all types of cars and the offered colors were the same (shown in Figure 6).
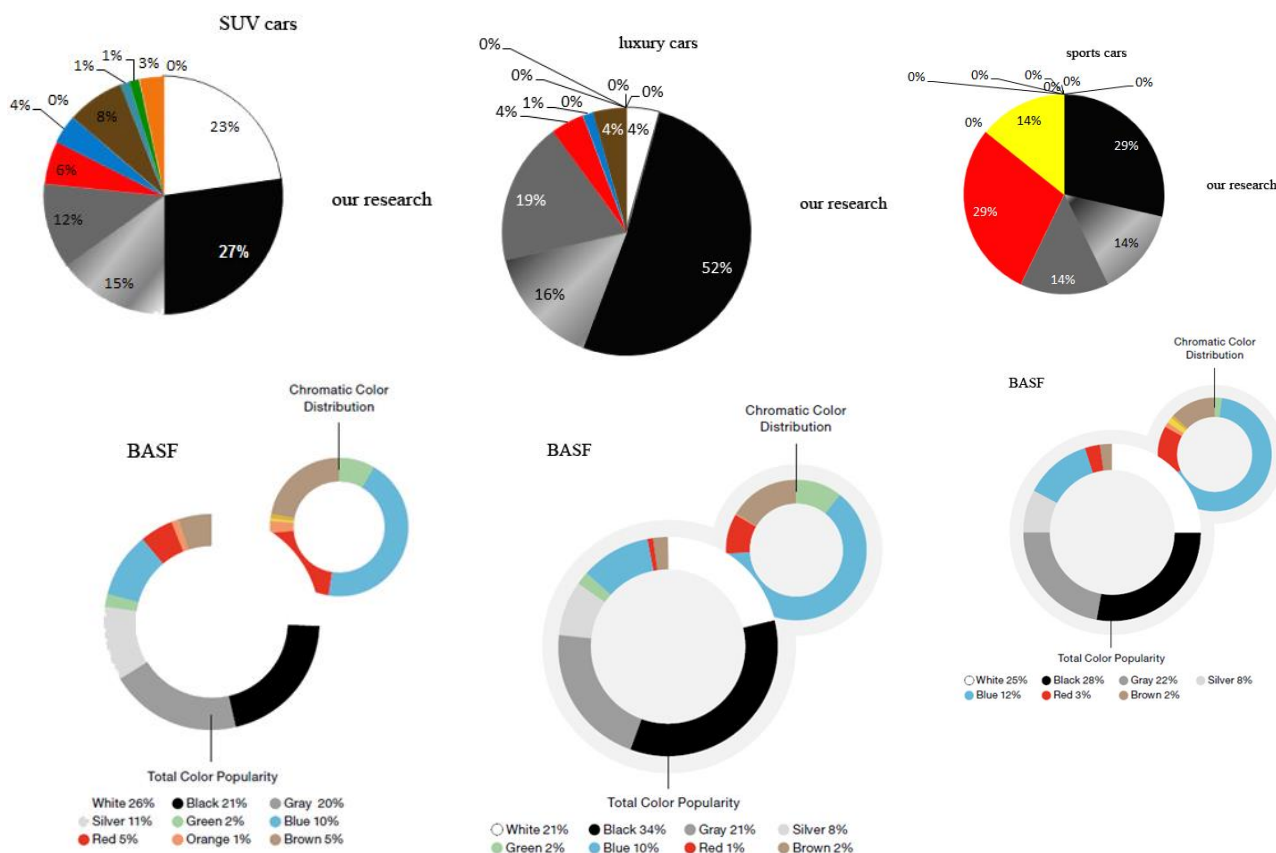

Figure 3 (left): Results comparison for SUV cars.
Figure 4 (middle): Results comparison for luxury cars.
Figure 5 (right): Results comparison for sports cars.

Figure 6: Example from an online survey Car class and offered colors.

The results for desired colors for small cars are black and white, same for city cars, compact SUV cars. In the case of sedan cars, they choose black and dark grey, the same for caravans. They choose black, white, dark grey and silver for minivans. For coupe they choose black and red color, while for luxury and sports cars black and silver.

Conclusions

Two research were conducted in order to determine whether customers are guided by their color preferences when buying a car or not. The first research involving counting cars at intersections in Zagreb during times of traffic jam. City, compact and caravan cars have been shown to predominate on the road. The most common car colors were white, black and gray. In an online survey, respondents answered that when buying a car, they are guided by the preferred color, although they choose black, white and silver for different types of cars. This is probably due to the ease of car maintenance. They like cars with metallic colors the most, but they wouldn't spend extra money to get the color they want. Although brightly colored cars or a combination of 2 colors can be seen today, they are still in the minority.

References

1. Fehrman KR and Fehrman C (2004), *Color: The Secret Influence* (second edition), Pearson.
2. Becker D (2016), *Color Trends and Selection for Product Design: Every Color Sells a Story* (first edition), William Andrew.
3. https://www.shutterstock.com/blog/car-design-throughout-history - last accessed 15 October 2019.
4. https://www.allpar.com/ - last accessed 5 November 2019.
5. http://www.classis-car-history.com/ - last accessed 6 September 2019.