

## Scientific article

# Creating and testing a logo design for a new brand

Petra Vugec<sup>1</sup>, Dorotea Kovačević<sup>2</sup>, Maja Brozović<sup>2</sup>

<sup>1</sup> 10000 Zagreb, Croatia

<sup>2</sup> University of Zagreb Faculty of Graphic Arts, Getaldićeva 2, 10000 Zagreb, Croatia

\* Correspondence: [dorotea.kovacevici@grf.unizg.hr](mailto:dorotea.kovacevici@grf.unizg.hr)

**Abstract:** Previous research on logo design indicated that colour and shape can both influence people's perception of a logo and brand values. Thus, the purpose of this study was to test the hypothesis that colour hue, typeface style, and shape design may impact the perceived qualities of a new and unknown brand in digital art. Three visual design concepts, three colour hues, and two typeface styles (bold versus light) were used as independent variables in the logo designs which served as prototypes for the final graphic solution. They were presented to 56 participants (between 21 and 44 years of age) using an online questionnaire. A seven-point Likert scale was used for data collection. The results indicated that, among all the variables, only the colour influenced the participants' responses. The red versions of the logo were preferred over the yellow ones. Although the bold typeface was rated better than the light typeface, the difference was not statistically significant. These findings support the notion that colour could be used as an effective visual attribute in logo design. In a broader sense, they also suggest that the testing stage should not be neglected in a successful process of logo development.

**Keywords:** logo, graphic design, visual identity, colour, typeface

## 1. Introduction

Previous research suggests that consumers are influenced by a strong and consistent visual presentation of a company [1]. In order to achieve the most effective visual identity, a logo should be chosen according to relevant and well-defined marketing goals [2]. Given that logo design may be a critical component in influencing consumers' brand perceptions [3], [4], it is important to understand the whole process of logo design and development. The process of logo design consists of both analytical and creative stages, and includes: analysing the competition, brainstorming, creating moodboards and different design solutions, and testing the solutions. Based on the testing results, a designer can select the most appropriate design. This paper presents the process of creating and testing various design solutions for the logo of a new brand called Keyframe Vision. The brand represents a company which is specialized in design activities with an emphasis on animation, 3D modeling, and product design. The service offered by the trade is based on the animation of promotional advertisements, preparation of 3D models for computer games, and photorealistic modeling. The company wants to evoke an impression of professionalism with a touch of minimalism and turn the clients' business ideas into reality through digital realism.

### 1.1. Research questions

It is known that certain logo attributes, such as colour, typeface, and design, evoke symbolic associations which influence overall brand evaluations [5].

Previous studies suggest that different shapes in graphic design can influence people's perception in many contexts. For example, in a packaging research [6], it was found that different packaging shapes can be associated with different expectations regarding a product. Psychological science [7] revealed that the shape of a visual object may have a critical influence on people's attitude toward that object, suggesting that sharp-angled shapes induce lower preference. Additionally, a study on logo design which examined visual shapes and their influence on people's judgments [8] revealed that logo circularity (as well as angularity) influences the inferences which people draw from the brand's products. Following these findings from packaging, psychology and marketing research, we formulated the first research question: Does the shape of a logo influence the perceived qualities of a brand?

Colour is one of the most prominent attributes of two-dimensional visual solutions besides shape. According to Bytyç [9], colour attracts people's attention while they make choices between several different brands, and therefore, it has a notable impact on brand development. The results of a study [5] highlighted the powerful role of colour in visual identity, indicating a strong impact on brand gender perceptions. For example, it was found that blue logos are associated with masculinity, while pink ones evoke feminine perceptions. Ridgway and Myers [10] investigated whether people link any personality traits to brands based on colour associations. They found that a blue logo was connected with confidence, success, and reliability. A green logo was associated with a commitment to the environment, and yellow with excitement. In a study [11] which investigated people's visual attention distribution toward the differently coloured stimuli, it was found that the red colour attracted more attention than blue. In this paper, we were focused on warm colour hues only, and explored the second research question: Does the colour hue of a logo influence the perceived qualities of a brand?

Given that a brand name is the fundamental point of a brand's image [12], the appropriate selection of typeface used for the brand name should not be trivialised. Previous studies showed that the typeface has the ability to alter convincing qualities of textual information and that different typeface styles have specific emotional aspects [13]. In a similar manner, users consistently attribute personality traits to different typefaces based on typographical features and overall appearance [14]. Therefore, our third research question addressed the use of different typeface styles in logo design and it was as follows: Does the typeface style influence the perceived qualities of a brand?

## **2. Methodology**

### **2.1. Design solutions**

To manipulate the shape of the logo, three design solutions were created (Figure 1). The concepts and the development of design solutions were based on a design brief. The visual appearance was based on well-known design guidelines suggested by Gernsheimer [15], such as cohesion, legibility, and attractiveness.

The first solution was based on letters K and V, which are the initials of the brand name. The letter V was rotated in such a way that it looks like a rewind button, which is commonly used in

animation. The two circles represent a key frame. The left circle indicates a starting point, and the right one indicates an end point. Taken together, the circles define a time frame for transition.

The second solution was based on a circular shape which suggested more than just one idea. It represented a movement, an eye, and vision in general. On the left, there is a symbol for the rewind button. On the right, there is the first letter of the brand name. By controlled combination of the positive and negative space, the form of a keyhole was designed, which was associated with the first word of the brand name.

The third design solution was typography-based. In order to convey a message regarding the brand's distinctiveness, a unique typeface was used. The letterform "O" represents an eye and vision. The purpose of the two straight and horizontally oriented lines is to evoke the sense of a controlled movement.



*Figure 1 Three design solutions used in the experiment*

## 2.2. Variables

The three visual design concepts (the first, the second, and the third design solution), three colour hues (red, orange, and yellow), and two typeface styles (bold versus light) were used as independent variables in the experiment. Dependent variables were perceived professionalism and perceived progressiveness of the company.

## 2.3. Questionnaire

An online questionnaire was used to collect the participants' responses. There were 56 participants between 21 and 44 years of age. 59% of them were women. They were presented with all of the variants of the design solutions. For each of them, they were asked to answer the following questions:

“On the basis of the above logo, please rate how professional the company appears to you.” and “On the basis of the above logo, please rate how progressive the company appears to you.” Their responses were recorded on a 7-point Likert scale, ranging from 1 (not at all) to 7 (to a very great extent).

## 3. Results

The data did not follow normal distribution. Therefore, nonparametric statistical analysis was done using the IBM SPSS Statistics software. For the investigation of the effect of the shape design, a Friedman test was conducted on both the perceived professionalism and the progressiveness ratings of the three visual design solutions in all the colours, but no statistically significant differences were found (see Tables 1 and 2).

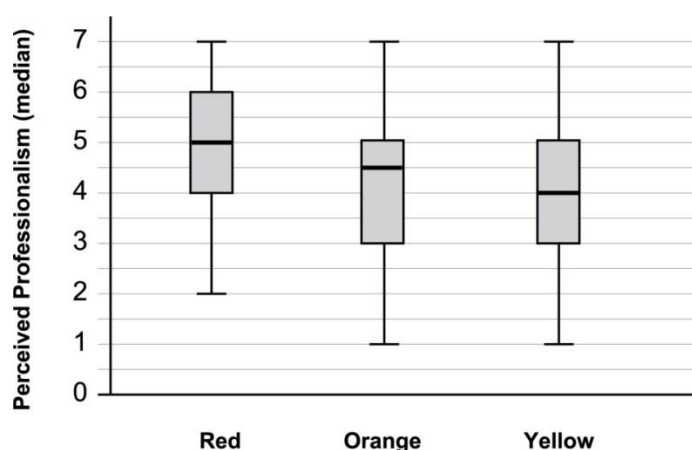
**Table 1** Results of the Friedman test for perceived professionalism

	<b>Red</b>	<b>Orange</b>	<b>Yellow</b>
Chi-Square	1.563	0.624	0.273
df	2	2	2
Sig.	0.458	0.732	0.872

**Table 2** Results of the Friedman test for perceived progressiveness

	<b>Red</b>	<b>Orange</b>	<b>Yellow</b>
Chi-Square	0.442	1.695	1.320
df	2	2	2
Sig.	0.802	0.428	0.512

The Friedman test was also used for the investigation of the influence of the colour hue. No significant differences were found in the perceived progressiveness among the colour hues for all the visual design solutions (all  $p$ s > 0.05). The results showed significant differences in the perceived professionalism between the colour hues for the first design solution,  $\chi^2 = 9.63$ ,  $df = 2$ ,  $p < 0.05$ , the second design solution  $\chi^2 = 13.87$ ,  $df = 2$ ,  $p < 0.05$ , and the third design solution  $\chi^2 = 16.25$ ,  $df = 2$ ,  $p < 0.05$ . Additional analyses with a Bonferroni correction revealed a significant difference between the yellow and the red for the first design solution ( $Z = -2.95$ ,  $p < 0.02$ ), the second design solution ( $Z = -3.13$ ,  $p < 0.02$ ), and the third design solution ( $Z = -2.92$ ,  $p < 0.02$ ), which indicated that the participants preferred the red design solution over the yellow in all the three design solutions. Figure 2 shows a box plot of the perceived professionalism of the visual design solutions. Although the bold typeface was rated slightly better than the light typeface, a Wilcoxon signed-rank tests showed no significant differences between the two typeface styles ( $Z = -1.46$ ,  $p = 0.14$  for the perceived professionalism,  $Z = -0.21$ ,  $p = 0.84$  for the perceived progressiveness), suggesting that the ratings of the perceived brand values were similar for the bold and light typeface.

**Figure 2** Box plot of perceived professionalism

#### 4. Discussion

The aim of the study was to examine the influence of logo design, colour hue and typeface style on the perception of professionalism and progressiveness of a new brand. We found that, among all the variables, only the colour influenced the participants' perception of the brand's qualities. The red versions of the logo were preferred over the yellow ones, suggesting that the participants perceived the brand with the red logo as more professional than the brand with the yellow logo. This is in line with past research. As stated by Kauppinen-Räsänen [16], studies of colour associations in the psychology research showed that colours can be linked to various moods, and that the red hue is linked to a cheerful and joyful mood. Furthermore, the red colour is commonly linked with the idea of activity and strength [17]. It can also be associated with excitement as it is considered an arousing and stimulating colour hue [18]. However, our results do not correlate well with a previous study [19] which explored the effect of colour in logo design, and showed that the respondents had a lower level of brand trust in a red logo brand.

Another factor that was examined in our study was the typeface style which varied in stroke weight. Although the bold typeface was rated slightly better than the light typeface, the difference was not statistically significant. This is in contrast with previous research. For example, the findings of a recent study [20] showed that the typeface influenced the perceived quality of a food brand and the participants' responses. Furthermore, in a study [21] which investigated the influence of brand design elements on the perception of brand masculinity and femininity, it was found that bold logo shapes enhanced the brand masculinity perceptions. Even greater contrast can be found with the results of a study [22] which showed that light typefaces are less preferable than thick typefaces from a subjective point of view. A study [23] on the influence of bold fonts on user preferences also demonstrated a higher level of preference for bold fonts. The lack of consistency among the findings of these studies suggests that more research on the effects of typeface weight on people's perception is needed.

Finally, no significant influence of shape design was found. This means that all three visual design solutions were perceived to be of equal quality. A reason for the successful designs could be a well-thought-out design process on which the creation of the visual design solutions was based [24]. The designer followed all the relevant stages such as competition analysis and design strategy development based on the creative brief. According to Storey and Smit [25], the creative brief has the ability to translate a long-term strategy into a short-term activity, such as ideation. According to Brown [26], it can be helpful to consider a creative brief as a scientific hypothesis, which is a set of mental constraints that gives graphic designer a framework from which to begin. It seems that this framework determined the quality of the design solutions used in this study.

#### 5. Conclusion

Different visual design solutions, colour hues, and typeface styles were used in our study as independent variables in creating variants of logo designs. The results indicated that only the colour significantly influenced the participants' responses to the logo, suggesting the superiority of the red colour hue. These findings support the notion that colour could be used as an effective visual attribute in logo and visual identity design. In a broader sense, our results also suggest that the testing stage should not be neglected in a successful process of logo development.

Still, our study has limitations. Because of the small sample size of participants, we were unable to assume that our findings can be relevant for all age groups and target audiences. Although a huge effort was put into the appropriate selection of typefaces for the logo testing, the inclusion of a larger variety of shapes and fonts in the experiment could offer wider knowledge about how people perceive the qualities of logo design. Future studies should also examine the effects of other visual attributes (such as structure and composition) through which attractive and effective logo design can be achieved.

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