Study on Texture of Eco-material in Logo Design

ロゴデザインにおけるエコマテリアルの質感に関する研究

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ロゴをデザインする場合、色や形をはじめとし、様々な要素に配慮する必要がある。これまでロゴデザインに関する研究では色や形に関する研究が多々行われてきたが、素材の質感に関する研究はあまり行われていない。だが、素材もイメージを左右する大きな要素であり、研究の必要性はあると考えられる。そこで本研究ではロゴの一要素としてエコマテリアルの質感に着目し、素材の

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1. Introduction

Design elements such as color, shape, line, tone, texture, proportion and direction are used to design logo. Color and shape were the most explored elements of design. For over 60 years, researchers have studied the effect of color in marketing, branding and as more companies go global, the studies were extended to the research about the cross-cultural meanings and associations of colors [1-5]. In terms of symbol design, the guidelines for selecting or modifying logos were provided [6-8]. How designs of logos were perceived, and their effects on consumers responses were examined; and accompanied by studies about the effect of different degrees of redesigned logos on consumers’ brand attitude [9-11]. In terms of font design, the guidelines to help managers in selecting typeface that reflects their brand image was develop [12-13].

However, the role and importance of texture in logo design has not received enough attention.

Every surface or material has its own visual and physical texture. Physical texture also known as tactile texture refers to the physical appearance or character of the surface. Tactile texture appeals to our sense of touch. The sense of touch can accompany the visual perception. Also, the memory based on experience provides a sensory reaction or sensation of touch by visual analysis of the texture [14].

Use of texture together with other logo design elements, could extend the options of creativity and increase the possibilities for logo to convey a variety of messages and emotions. The idea is to use textures more freely and especially in case of eco-brands, because logo created with additional texture is employing the image of eco-materials and therefore can more clearly express the eco-image of company. Logo texture can play an important role in the logo design.

2. Purpose of Research

The purpose of research is to find which textures of eco-materials could team up with new logo design to express the eco-image of company. This research concentrates on the idea to use the texture of eco-material as a logo design element to promote the eco-image of company.

Figure 1. Samples of logos with eco-materials
4. Results of Experiments

The results of the experiment with logos are based on mean values and standard deviation values. The most highly ranked mean values above 3.30 are highlighted in bold numbers (Table 1). In all the case studies of six brands Leaf and Wood received the highest ranked mean values. Range of mean values of Leaf is 3.40 (Honda) – 3.90 (Mitsubishi). Range of mean values of Wood is 3.48 (Toyota) – 3.88 (Lexus). In five cases out of six (except case study of Mitsubishi), Bamboo received high ranked mean values. Range values of Bamboo is 3.24 (Mitsubishi) – 3.60 (Honda).

5. Student t-test

Student t-test was performed to determine if the averages of two logo samples are significantly different. This test can give some insights about the relationship between the texture of eco-material and logo design. 11 t-tests were performed to test if for the six variables (six eco-materials), there is a clear difference between two logos. The difference appears to be significant in Small stones and Leaf. In five cases the computed p-value of variable Small stones was lower than the significance level alpha=0.05 and the null hypothesis H0 was rejected. In case of comparison between Mitsubishi - Honda the computed p-value of variable Leaf was lower than the significance level alpha=0.05 and the null hypothesis H0 was rejected.

From the Student t-test results it is possible to define that within this experiment the texture of Small stones did not fit for Suzuki logo and the texture of Leaf worked well for the Mitsubishi logo.

6. Conclusion

The mean values of six case studies revealed that Leaf (3.67) and Wood (3.67) received the highest ranked scores. Bamboo (3.42) goes in the third place. The final conclusion is that in the case studies of six companies and six selected materials with eco-image the best materials to use for logos to express eco-image are Leaf with Wood and after that Bamboo.

In the experiment with logos of six brands in addition to the feel and look of textures of eco-materials, the balance of shape of logo and texture of eco-material played an important role in the evaluation and decision processes.

This research answered the question about suitable textures of eco-materials, but did not explain the relationship between logo design (shape, composition, proportion) and textures of eco-material (texture, color). The explanation of this relationship could be an interesting topic for the future research.

References


Table 1. Mean values and standard deviation of logos with textures of eco-materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Honda</th>
<th>Lexus</th>
<th>Mazda</th>
<th>Mitsubishi</th>
<th>Suzuki</th>
<th>Toyota</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MV  SD</td>
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<td>MV  SD</td>
<td>MV  SD</td>
<td>MV  SD</td>
<td>MV  SD</td>
</tr>
<tr>
<td>Leaf</td>
<td>3.40 1.12</td>
<td>3.52 1.20</td>
<td>3.66 1.17</td>
<td>3.90 0.93</td>
<td>3.78 1.07</td>
<td>3.76 1.19</td>
</tr>
<tr>
<td>Bamboo</td>
<td>3.60 1.11</td>
<td>3.38 1.03</td>
<td>3.52 1.03</td>
<td>3.24 1.10</td>
<td>3.44 0.99</td>
<td>3.32 1.10</td>
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<tr>
<td>Wood</td>
<td>3.72 0.97</td>
<td>3.88 1.04</td>
<td>3.68 0.82</td>
<td>3.58 1.05</td>
<td>3.66 0.94</td>
<td>3.48 1.25</td>
</tr>
<tr>
<td>Linen</td>
<td>3.28 0.97</td>
<td>3.26 0.88</td>
<td>3.12 1.02</td>
<td>3.36 1.12</td>
<td>3.22 0.95</td>
<td>3.20 0.90</td>
</tr>
<tr>
<td>Jute</td>
<td>3.28 0.93</td>
<td>3.20 0.81</td>
<td>3.12 0.87</td>
<td>3.30 0.86</td>
<td>3.34 0.87</td>
<td>3.52 0.97</td>
</tr>
<tr>
<td>Stones</td>
<td>2.16 0.89</td>
<td>2.50 1.04</td>
<td>2.38 1.07</td>
<td>2.34 0.89</td>
<td>1.82 0.77</td>
<td>2.18 0.94</td>
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</tbody>
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