

EMOTIONAL DESIGN: STUDY OF THE COLOUR PREFERENCES OF IRANIAN USERS

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ABSTRACT

This paper is concerned with emotional design, which can influence user experience and combine it with happiness and enjoyment. Emotions have a crucial role in human ability to understand the world. Today, users buy a product, not only for functional aspects of it, but also they are attracted to emotional usability of the product. Therefore, designers are more focused on emotional aspects of design. The products that are designed based on emotional design are more desirable and bring more satisfaction to the user.

Colour is one of the fundamental elements of emotional design, which can stimulate different senses of users. Colour can strongly affect the form of the product and the feeling of the user. A product with appropriate colour gets more popular and will find a good market. Appropriate colour not only matches with the form and function of the product, but also matches with the culture and preferences of the user. In order to be able to select an appropriate colour for a product, there is a need for having a good knowledge of preferences of the users.

Therefore, a case study was performed to investigate the Iranian preferences regarding colours. For this aim a questionnaire was made and filled by eighty five Iranian men and women between 20 and 30 years old. Data were analyzed by Excel computing software. The results of this study can be used by designers for selecting appropriate colours for different products.

Keywords: Emotional design, product design, colour

1 INTRODUCTION

Nowadays, the market places, malls and shopping centres are full of many products, which are so different in their functions and appeals. Today, designers are not only responsible for users' operational behaviour, but also for their emotional needs. The Emotional Design Method focuses on stimulation of human sensations such as pleasure, happiness, and satisfaction by products attributes.

This paper is concerned with emotional design method and its aspects such as, forms, functions, textures and colours. In order to achieve more practical experiences in emotional design method, a case study on colour aspect carried out.

2 EMOTIONAL DESIGN AND ITS ASPECTS

In our time "the enjoyment of use" is followed as a design target [1]. Products that can bring the enjoyment of use facilitate interactions and lead to better results. It could be said "Emotional aspects of products are more important than their functions" [2]. People do not choose products only for their functional specifications. They expect that a product act as a live creature and have emotional aspects [3]. In order to obtain attention of the users in the competitive market, a product needs to be different among its category [4]. The emotional design audiences are specifically designers, programmers, engineers, inventors and manufacturers who intend to enhance the effectiveness and emotional content of the products for users all around the world [5]. It could be mentioned that emotional design is neither a style, nor a method, which specified for a certain group. It is an approach to stimulate users' sensations and attentions to change human beings' needs and expectations.

Designers consider emotions as a pivotal aspect of their works, due to the importance of its influence on the purchasing decision [6].

Considering emotions in design, gives opportunities to producers and designers who are able to focus on users as stakeholders. Therefore, designers can use the emotional factors as a profit element in the products. It seems that in future the design will mostly focus on the appearance of the product to stimulate the users' senses and their feeling [7].

Emotional design method is mainly based on four aspects; form, function, texture and colour. Form as a one of the most poetic and rhetorical factors in design, is seen in countless variations from cubist simplicity to metaphorical ambiguity. Form plays the role of an informative messenger that attracts consumers through devices, offering a unique sensibility. The message of emotional design would pass via both geometric and non-geometric forms [8].

In emotional design, designers have translated functions into emotion through human senses. In fact emotional design generates psychological effects through physical devices to transform the nature of function. Functions can be visible or invisible, physical and psychological [8].

Material stimulates human sensations by vision and touch. Touch is the most analytic of senses [9]. Today designers use different materials and technologies such as the transparency of composites and the incredible quality of elastomers to develop the aesthetics, functions and the emotional quality of their products. However, using of the natural materials is more effective and practical than artificial and synthesis ones.

Colour is one of the most significant stimuli that could be interpreted via the physical world around us. Colours in products are usually affected by age, sex, social groups, education and professions. Colour is a sensitive factor that does not follow any certain rule and pallet, but displays a plurality in which primary colours, complementary and transparency appears [8].

Therefore, selecting the right colour for a product that would be able to stimulate its users' sensations is important. For this aim, psychological and cultural studies would be useful. Colours as significant symbols have various meanings and been resulted of civilizations, religions and traditions [10].

Colour as an important factor in emotional design is able to develop product attributes, increase the power of forms, identify the product functions and offer the sense of high quality [8].

3 CASE STUDY

The aim of this study is to identify the taste of colour among Persian people, to obtain instructions for product designers with emotional approach. These instructions would help designers to select appropriate colours for their products. A suitable colour offers a range of emotions such as happiness, reliability and satisfaction to users.

For this study a questionnaire was prepared based on the emotional design studies. The colours that offered in the questionnaire were selected from the Faber Castle's standard pallet of 120. This questionnaire was sent to 100 people between 20 to 30 years old via internet. 85 people; 49 women and 36 men replied by filled questionnaire.

In order to analyze the results, the colour was classified to several groups, based on people trends to warm and cold colour, dark and light colour and so on.

This study had two steps. At the beginning, the Persian people general tastes were identified. Then the relations between colours and the aesthetic factors in emotional design were studied. In order to identify the Persian people general tastes, first some questions were asked about their ideal colour. Then the colour of their bedrooms' wall was questioned, due to the importance of it as a factor for evaluating people sensitivities to colours.

As the results show, people tastes clearly could be divided in two different sides; warm colours and cold colours. Although, there are more tendencies to warm colours such as red and pink. In total, forty six percent of the participants selected warm colours from yellow to magenta and forty three percent preferred cold colours from light blue to olive-green. Surprisingly nobody chose black as the favourite colour. (Figure 1)

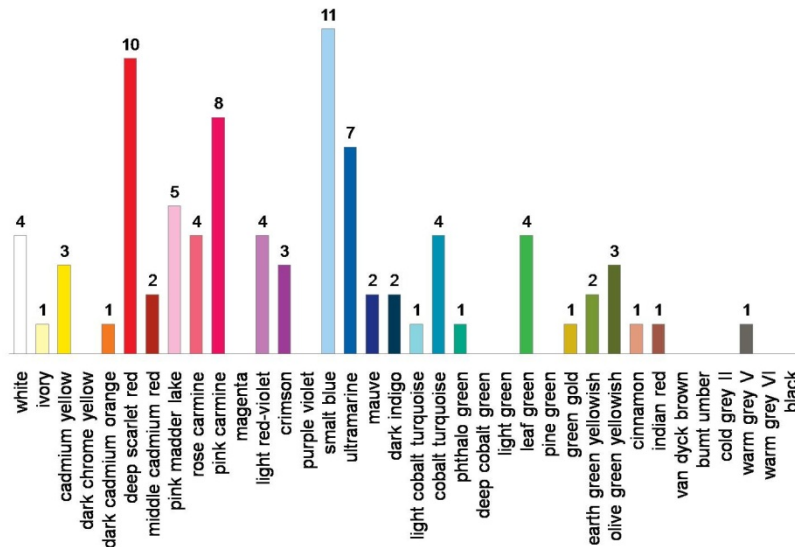


Figure 1. The favourite colour of the participants

The results regarding bedrooms colours show that the walls of the bedrooms of sixty four percent of participants were white and thirteen percent were ivory. Therefore it could be said that seventy seven percent of people had not colourful bedrooms. (Figure 2)

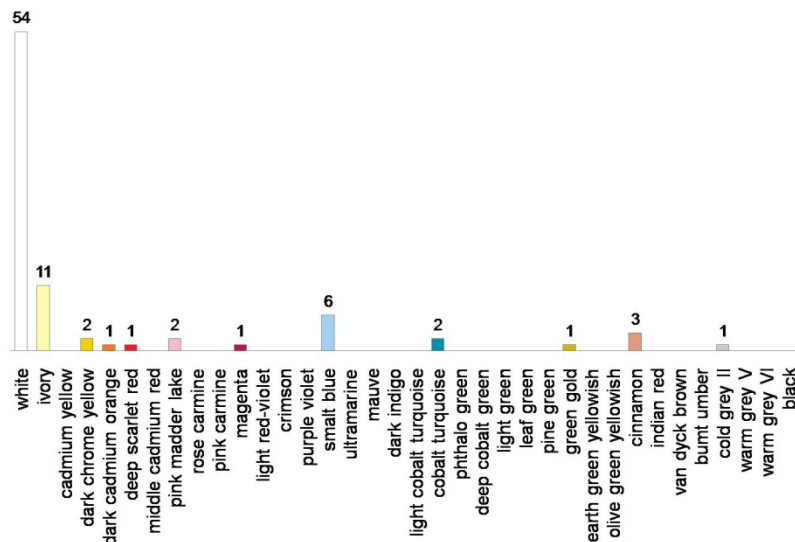


Figure 2. The colour of the participants' bedrooms

In order to find the relations between colours and aesthetical factors, sensations such as happiness, excitement, comfort, safety, confidence, satisfaction, comprehensibility, reliability and their Antonyms were questioned.

Eighty percent of participants related warm colours, especially deep scarlet red to happiness. Nobody chose brown, grey and black colours for this word. (Figure 3)

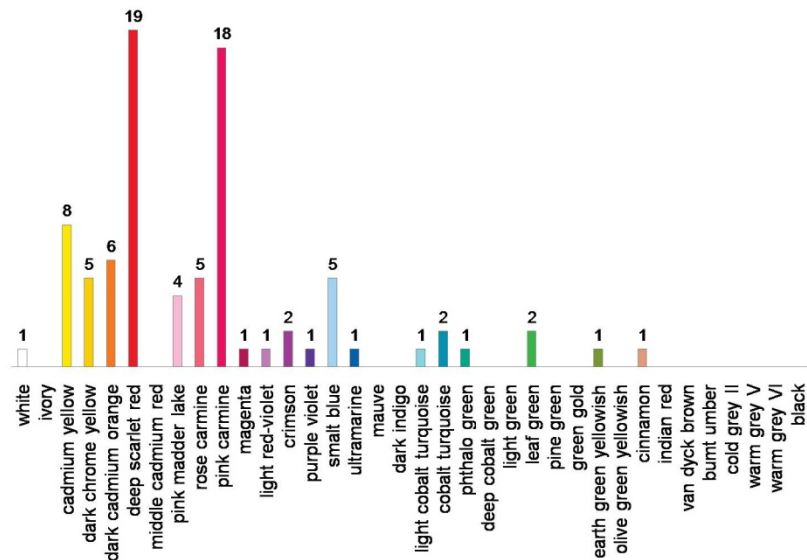


Figure 3. The selected colours for happiness

Seventy two percent of people related brown, grey and black colours to sadness; 39% grey, 24% black and 9% brown.

Seventy six percent of people, who participated in this study, related middle cadmium red and dark pink to excitement. 50% of people chose red as colour of excitement and obviously there were no hint to white, cobalt, green, brown and grey. 74% related boring word to cobalt, green, brown, grey and black colours. (Figure 4)

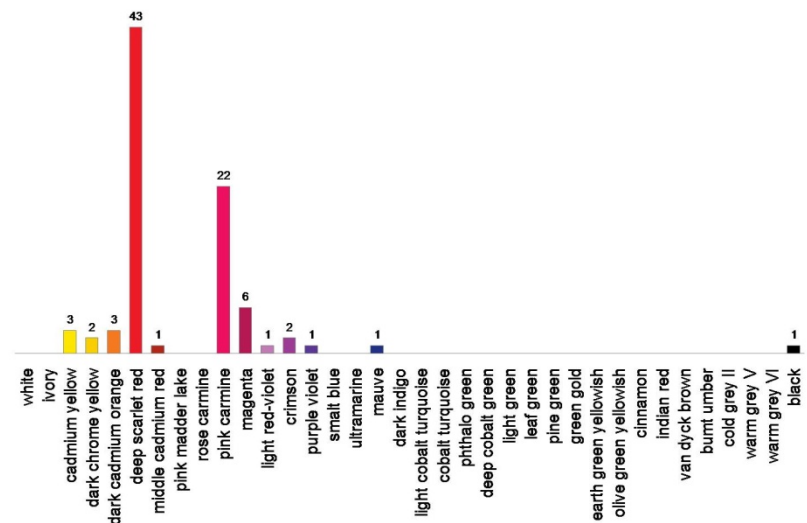


Figure 4. The selected colours for excitement

The light colours such as; light blue, white, light pink, light violet, light cobalt, ivory and light green were related to comfort by 60% .On the other side, 47% of people suggested olive-green, brown, grey and black for discomfort. Among 85 participants 8 persons related deep scarlet red to discomfort sensation. Seventy two percent of people agreed on the close relation of safety to blue colour. Also warm colours were chose as a sign for danger by 42%. As a standard red is an international symbol for danger and it is used in different places such as fire fighter station and equipment. Cold colours especially blue were selected more than any other colours for indicating confidence sensation by 56% of participants. On the contrary, warm colours chose to indicate instability.

For satisfaction, 50% of people chose blue and green. On the other side, 51% of participants related dissatisfaction to brown, grey and black colours.

White more than any other colours was suggested for Comprehensibility phrase. 61% of people in this study related this phrase to blue, white and green.

On the other hand, deep scarlet red, olive-green, grey and black were considered as incomprehensibility.

The cold colours such as white, blue and green, specifically blue were suggested for reliability by 66% of people, because of their influence on decreasing blood pressure of human beings. (Figure 5)

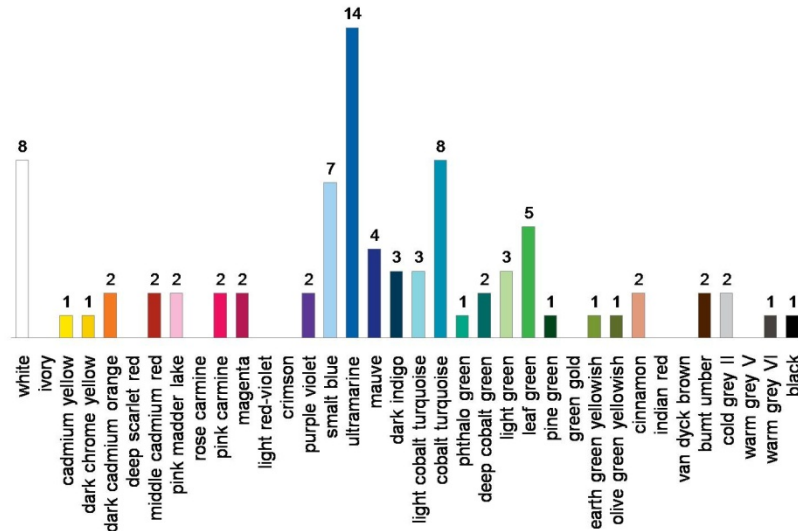


Figure 5. The selected colours for reliability

4 CONCLUSION

Emotional design approach leads to products that are adapted to modern users' needs and feelings. Today, users are not only interested in functions and durability, but also in happiness and enjoyment. Studying the human feelings and users' requirements could be the best and easiest way to facilitate choosing the design attributes such as colours. Studying the colour and its psychological effects on human beings, not only help designers to choose appropriate colours, but also give them more information about their customers.

Emotional design influences products through different channels. Colour is one of the most powerful factors, which stimulate people senses with its psychological effects. Therefore, choosing colours according to people trends would result in successful design.

As a result of present study it can be concluded that Persian people are sensitive to colours and their effects in daily life. Some of the results of this study clearly give an instruction to designers for choosing colours. For instance, designers can increase the excitement feeling by using red colour in their products.

Choosing appropriate colours in products attracts customers and increases sales rates. It also generates nice feelings such as pleasure and happiness in the customers. This success only would be achieved by performing various case studies. In addition, considering personal factors such as age, sex, taste and culture of the users is helpful.

If design of a product take place locally, adapting designs with users' needs and tastes would be easier. For example, Persian people prefer warm colours like red and pink that brings excitement rather than cold ones.

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