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Creative Design: Its Preferences and Evaluation

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Abstract

Design is concern with the ability of a man to mould his environment to suit his material and spiritual needs. However, design preferences and evaluation are valued based judgement which may be knowledge biased, intellectual biased, authority biased or democratic biased. Therefore, this paper seeks to investigate knowledge regarding creative design preferences and how it's being evaluated. A study was also performed to compare the design preference by authority and design preference by public opinion. This was achieved by sampling public preference among the four logos examined by a university authority. The result from the study reveals the contradiction between authority preference and the public preference.

Keywords: Design, Creative Design, Design Preference, Design process, Aesthetics

1. Design Process

The process of designing is an activity of mind, integrating and coordinating between functions and aesthetic. It's when drawing skills and technical know-how managed to fuse harmoniously, thereby solving technical problems together with artistic values (aesthetics). Therefore, good design is a combination of three entities which are technology, culture and art/aesthetic (Fig. 1).

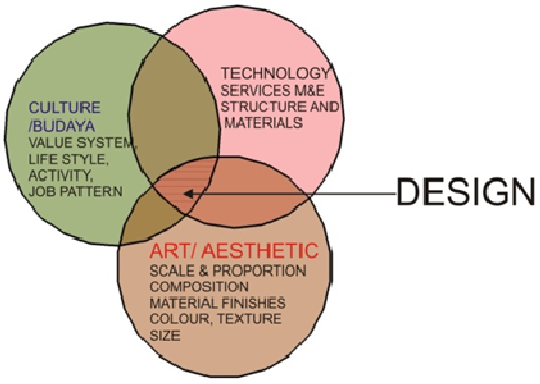

Figure 1: The three entities that makes-up a good design

Some of the qualities of a good design are:

- When an object or space please you because of its function and visually appealing.
- When the creation has a strong unique feature with less similarity to others in shapes and forms that conforms to functions (creative solution).
- When you get emotionally attached to the design.
- When art and technology is in harmony, complimenting each other.

1.1 Fundamental Knowledge for Designing

The fundamental knowledge needed in order to create a good design is grouped into two which are: knowledge in science and technology; and knowledge in art and humanities (Table 1).

Table 1: Fundamental knowledge needed to create a good design

Science & Technology	**Art & Humanities**
➢ Production Technology ➢ Applied Technology ➢ Material Science ➢ Fundamental of Human Science	➢ Aesthetics ➢ Colour ➢ Human Needs: Perception (Product Emotion & Empathy) ➢ Communication Skills: Information Technology (IT), ability to draw, to visualise and verbal skills.

1.1.1 Science and Technology

This is a term used to encompass the relationship between science and technology. The term science is a systematic enterprise that builds and organises knowledge in the form of testable explanations and predictions about the universe while technology is the process of applying the findings of science and other forms of enquiry to applied situations. Technology involves the making, modification, usage and knowledge of tools, machines, techniques, craft, systems, methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal or perform a specific function. According to Wikipedia (2012), science and technology significantly affect human as well as other animal species' ability to control and adapt to their natural environments. Some of the areas in science and technology where designers need fundamental knowledge include production technology, applied technology, material science and human sciences.

i. Production Technology: this involves applying the work of research to develop new products and processes.

ii. Applied Technology: According to Wikipedia (2012), it is the application of scientific knowledge transferred into a physical environment. It is the application of human knowledge to build or design useful things.

iii. Material Science: This is an inter-disciplinary field which involves the properties of matter and its applications to various areas of science and technology. It is an applied science concerned with the relationship between the structure and properties of materials.

iv. Human Science: this is the study and interpretation of the experience, activities, constructs and artefacts associated with human beings. According to Wikipedia (2012), the study of the human science attempts to expend and enlighten the human being's knowledge of his or her existence, its interrelationship with other species and systems and the development of artefacts to perpetuate the human expression and thought.

1.1.2 Art and Humanities

Art involves the expression or application of human creative skill and imagination, typically in a visual form while humanities studies human conditions, using methods that are primarily analytical, critical or speculative as distinguished from the mainly empirical approaches of the natural sciences. Some of the knowledge required under arts and humanities includes; aesthetics, colours, human needs (perception, product emotion and empathy) and also communication skills.

i. Aesthetics: This are set of principles underlying and guiding the work of a particular artist or designer. It is a branch of philosophy dealing with the nature of art, beauty and taste, with the creation and appreciation of beauty. Aesthetics are usually accomplished by shape, texture, colour, type of material, symmetry and simplicity of the repeated pattern used in the design.

ii. Colour: Colour is the effect on something's appearance of the way it reflects light (Oxford English Dictionary, 1999). According to Kendra (2012), they are powerful communication tool and can be used to signal action, influence mood and cause physiological reactions. Therefore, it is important for designers to have the fundamental knowledge of how they can use the appropriate colour during design process.

iii. *Human Needs:* Some of the human needs include perception, product emotion and empathy. This is because consumers no longer want product that just do the right thing but also make them feel the right way. Therefore, human perception, emotion towards product, and empathy are fundamental knowledge designers must have. Perception is the organization, identification and interpretation of sensory information in order to represent and understand the environment (Schacter, 2011). Emotion is defined by Oxford English Dictionary (1999) as an intense feeling contrasted with reason. Emotions differ from moods in term of time and physiological effects; emotions elicit a sharp change with a physiological change while moods are longer and less intense (Carson, 1997). Empathy is a sense of understanding another person's feelings. It is the capability to recognize feelings that are being experienced by another sentient or semi-sentient being. Designers needs to have the fundamental knowledge of these (perception, product emotion and empathy), as they will help in making customers engaged with products rather than being just a loyal purchaser. Also, it will help designers not to waste time designing product that doesn't fulfil customer's expectation (Olalere, Aziz & Ramli, 2012).

iv. *Communication Skills:* This is the ability to express ourselves or to get our ideas across. As a designer, communication skills are one of the fundamental knowledge required in order to work effectively. Some of these skills include; knowledge of information technology, ability to draw and also to visualise. Also, verbal skills are very important because our use of language has tremendous power in the type of atmosphere that is created at problem-solving table.

1.2 Types of Design

Design is valued based and both the design concept and design philosophy are both based on values adopted by the designer. Traditionally, designers are ego-centric; that is, they regard themselves and their own opinions or interests as being the most important or valid. However, of late, designers are now being eco-centric; they are now environmental conscious.

Types of design can be described along two aspects; Art biased and Technology biased. An art biased design focus mainly on the perception, aesthetic value, culture and product emotion while technology biased design aims at the functionality, with little or no aesthetic value (see Fig. 2)

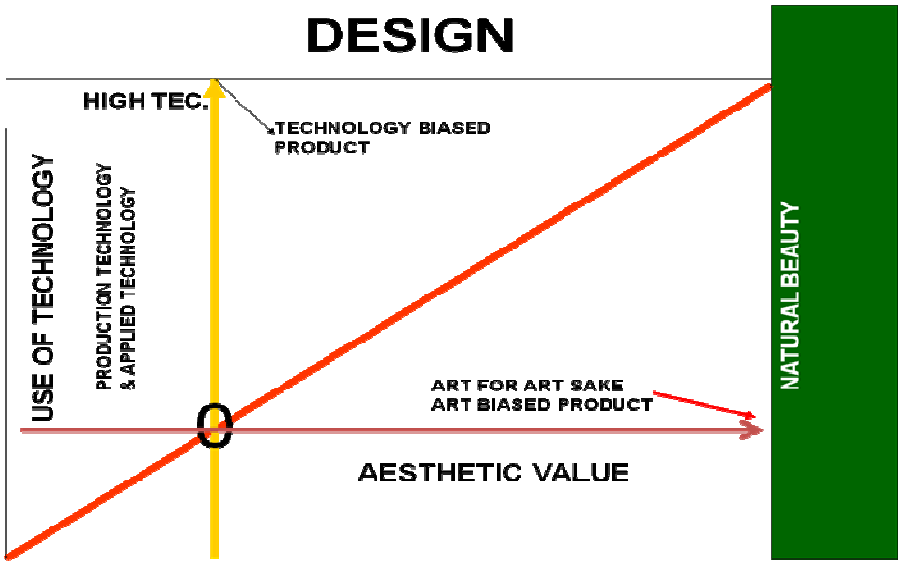

Figure 2: Types of design described along two aspects

2. Design Preferences and Evaluation

Design can either be achieved with technological approach or artistic approach (see Fig. 3), however both can be combined together to create a unique and innovative design. Technical designs focus more on the functionality and are always achieved with the application of technology; therefore, such designs are technology biased. While artistic design focus more on the aesthetic value which is achieved with the application of art; therefore, such designs are art biased.

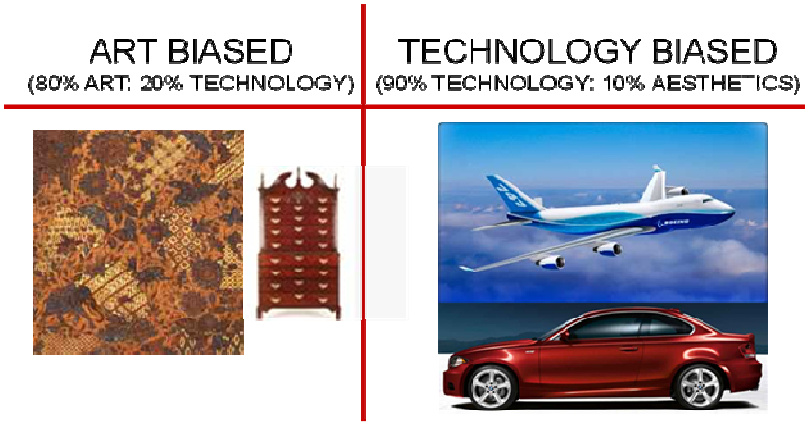

Figure 3: Art and technology biased design

Design preference is an evaluative judgement in the sense of liking and disliking an object or design (Scherer, 2005). However, it does not mean that a preference is necessarily stable over time. Preference can be notably modified by decision-making processes, such as choices (Brehm, 1956; Sharot, De Martino, & Dolan, 2009) and also in unconscious way (Coppin, et al, 2010). Lichtenstein & Slovic (2006) also defined preferences as an individual's attitude towards a set of objects, typically reflected in an explicit decision-making process. Therefore, design preferences and evaluation are valued based judgement which may be; knowledge biased, intellectual biased, authority biased and democratic biased.

2.1 Knowledge biased

Knowledge is a familiarity with something (Lucinda & Martin, 1999), which includes facts, information, descriptions or skills acquired through experience or education. It can be more or less formal or systematic. Therefore, design selected/choose based on the knowledge of the individual or group of people is known as knowledge biased preference. Fig. 4 shows examples of design preferences by knowledge.

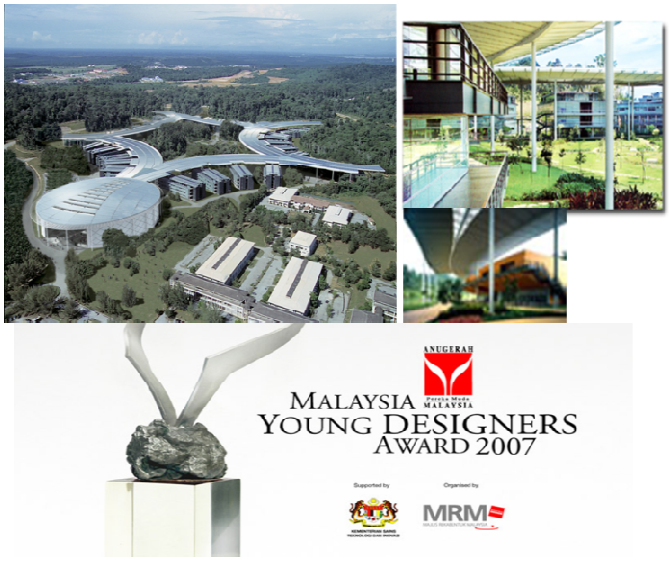

Figure 4: Examples of design preferences by knowledge

2.2 Intellectual biased

Intellectual is a specific variety of the intelligent which is strictly associated with reason and thinking (Wikipedia, 2012). Some design preferences are based on individual reasoning or thinking, such preferences are called intellectual biased preferences.

2.3 Authority biased

Authority is a right conferred by recognized social position (Wikipedia, 2012). It is the scope of an entity's legitimate power when acting on behalf of government. This directly or indirectly influence some design preference, because, some designs are preferred or used not because of expert advice or opinion, but based on the choice made with legitimate power of authority. Therefore, such designs are called authority biased preferences. Fig. 5 shows some design preferences by authority.

Figure 5: Examples of design preferences by authority

2.4 Democratic biased

Democratic is an approach where all eligible individuals have an equal say in the decision that affect them. It allows people to participate equally, either directly or through elected or randomly selected representatives. Therefore, design preferences by public opinion are democratic biased. However, since the general opinions of people are sampled, this approach is believed to be a little more reliable in choosing design preferences.

3. Study

This study aim to compare design preference by authority (authority biased) to the design preference by public opinion (democratic biased). Based on the four logos (Fig. 6) that was critically considered during the inception of Universiti Malaysia Kelantan (UMK), this study sampled students' opinion and preference among the four logos (logo C was the one selected by the university authority).

Logo A	Logo B	Logo C	Logo D
UMK UNIVERSITI MALAYSIA KELANTAN	UNIVERSITI MALAYSIA KELANTAN	UNIVERSITI MALAYSIA KELANTAN	UMK UNIVERSITI MALAYSIA KELANTAN

Figure 6: The four logos sampled

3.1 Method

Firstly, questionnaire with the four logos was given to some group of participants (N=352), they were asked to select the logo they most preferred. The participants include 296 students from Universiti Malaysia Kelantan (UMK), 16 students from Universiti Technology Mara (UiTM) and 40 students from Universiti Pendidikan Sultan Idris (UPSI). After this, another questionnaire with three logos (minus the logo with the highest vote at the first sampling) was given to another group of participants (N=146), they were also asked to select their preferred logo out of the three logos. The participants at this second sampling include; 86 students from Universiti Technology Malaysia (UTM) and 60 students from Universiti Islam Antarabangsa Malaysia (UIAM). This second sampling was done so as to know the other preference apart from the one most preferred at the first sampling.

3.2 Result

The result from the study is analyzed in Table 2 below, using the "Japanese spirit and values-consensus formation".

Table 2: Result of the study

UNIVERSITIES	UMK UNIVERSITI MALAYSIA KELANTAN	UNIVERSITI MALAYSIA KELANTAN	UNIVERSITI MALAYSIA KELANTAN	UMK UNIVERSITI MALAYSIA KELANTAN
UMK (296) UiTM (16) UPSI (40)	10 (3.4%) 0 0	235 (79.4%) 16 40	16 (5.4%) 0 0	35 (11.8%) 0 0
352	2.8 %	82.7 %	4.5 %	9.9 %
UTM (86) UIAM (60)	47 (55%) 60 (100%)	NOT GIVEN NOT GIVEN	17 (19.8%) 0	22 (25.6%) 0

3.3 Discussion

Generally, the result produced interesting findings. Firstly, the first sampling reveals that logo B is most preferred followed by logo D, while logo A has the lowest preference. Also, from the result of the first sampling, there was a wide gap between the most preferred (logo B) and the other three logos. And all the participants form UiTM and

UPSI preferred logo B. However, the second sampling gives a contradictory result as logo A that has the lowest preference in the first sampling was most preferred at the second sampling (with the absence of logo B). Also, participants from UIAM (60 students) all selected logo A as their preference.

Therefore, from the study, logo B and A were the preference in the first and second sampling respectively. These two logos are the design preferences by public opinion; however, the design preference by the university authority is logo C which contradicts the public preferences.

Conclusion

Design preferences as an individual's attitude toward a set of designs is an explicit decision-making process. Therefore, preferences vary by individual and this is influenced by our belief, culture, profession, knowledge etc. However, it's better to have broad base views in making decisions in design, most especially when public or some group of people will be affected by the decision made. In the light of this, this paper performed a study to compare the design preference by authority with that of the public opinion. The result from the study shows a wide contradiction between the preference of the authority (authority biased) and the preference of the public (democratic biased).

References

Brehm, J. W. (1956). Post-decision charges in desirability of choices alternatives. *Journal of Abnormal and Social Psychology*, 52, 384-389.

Carlson, R. (1997). *Experienced cognition*. Mahwah, NJ: Lawrence Erlbaum.

Coppin, G., Delplanque, S., Cayeux, I., Porcherot, C., & Sander, D. (2010). I'm no longer torn after choice: How explicit choices can implicitly shape preferences for odours. *Psychology Science*, 21, 489-493.

Kendra, C. (2012). *Colour psychology: How colour impact moods, feelings and behaviours*. Retrieved September 6, 2012, from http://psychology.about.com/od/sensationandperception/a/ colourpsych.htm

Lichtenstein, S. & Slovic, P. (2006). *The construction of preference*. New York: Cambridge University Press.

Lucinda, C., & Martin, N. (1999). *Oxford English Dictionary* (4th ed.). Oxford, UK: Oxford University Press.

Olalere, F. E., Ab, Aziz, S., & Ramli, bin, I. (2012) "The application of computer aided design as tool for building user-centered design in consumer ceramics' product development". *International Journal of Art, Culture and Design Technologies (IJACDT)*, 2(2); Pg 30-42. (ISSN 2155-4196; eISSN 2155-420X). doi:10.4018/ ijacdt.2012070103

Schacter, D. (2011). *Psychology*. Worth Publishers.

Scherer, K. R. (2005). What are emotions? And how can they be measured? *Social Science Information*, 44, 695-729.

Sharot, T., De Martino, B., & Dolan, R. J. (2009). How choice reveals and shapes expected hedonic outcome. *Journal of Neuroscience*, 29, 3760-3765

Wikipedia. (2012). *Applied technology*. Retrieved November 17, 2012, from en.wikipedia.org/wiki/ Applied_technology

Wikipedia. (2012). *Authority*. Retrieved October 17, 2012, from en.wikipedia.org/wiki/authority

Wikipedia. (2012). *Human science*. Retrieved November 17, 2012, from en.wikipedia.org/wiki/ Human_science

Wikipedia. (2012). *Intellectual*. Retrieved October 17, 2012, from en.wikipedia.org/ wiki/intellectual

Wikipedia. (2012). *Technology*. Retrieved November 17, 2012, from en.wikipedia.org/ wiki/technology