

THE CONSTRUCTION OF THE VALUE ASSESSMENT LEVEL OF CULTURAL AND CREATIVE PRODUCTS

Meng-Chu Chang^{1,2}, Meng-Dar Shieh¹, Kuo-Hsiang Chen³, Hsieh-Chih Chen⁴

¹Institute of Creative Industry Design, National Cheng-Kung University,

²Department of Culture and Creativity, Meiho University,

³School of Art and Design, Fuzhou University,

⁴Department of Information Communication, Kao Yuan University,
R.O. CHINA.

¹x00003127@meiho.edu.tw

ABSTRACT

The value of cultural and creative products is not easy to assess, the purpose of this study is to build a layer for the evaluation of cultural and creative product values from various aspects in order to provide designers with a reference for design evaluation. Studying comprehensively, this paper probes into the relationship between the conversion of cultural value to the design value, and then combines the Modified Delphi Method to collect the expert's opinions, and further integrates three value levels of the product design and the characteristics of its corresponding properties, in the direction on the evaluation of the value of the cultural and creative product.

The study divided the value of cultural and creative products into three levels such as "practical level", "sensory level" and "spiritual level" to summarize the different design orientations of cultural and creative products. The core values of product design with various characteristics are different. The "Practical level" is focused on the actual use or a person's experience of the product. The "Sensory level" is focused on the aesthetic or creativity of the product. The "Spiritual level" is focused on the products' cultural feature, story behind, special emotional or symbolic meaning, etc. Product design can be based on different design requirements, focusing on different levels of values. However, the design of the product has a different value and thus should not focus on the single value level, but should be able to consider the balance of the three. The best product design should be able to combine multiple values and meet the diverse needs of the consumer, which is also a goal to be pursued in the design of the cultural and creative product.

Keywords: Cultural and creative products, Product value, Value level, Design level, Value assessment

INTRODUCTION

Cultural and creative products are created from innovative designs with cultural features. The designers integrate cultural elements into product designs through creative design approaches, so that the products themselves no longer only focus on their functional and aesthetic values, but also add cultural factors in order to meet the spiritual satisfaction when consumers use the product. Nevertheless, cultural and creative product design is not easy to assess. Hence, it is still essential for designers to explore a better way of assessing cultural and creative designs. A layer of cultural and creative products design values is built in this study from various aspects with an attempt to provide designers with a reference direction of design assessments. Studying comprehensively, this analysis probes into the relationship between the value layer of culture and the value layer of the creative design, and then through the "Modified Delphi Method" to collect the expert's opinion and further integrates the three value levels of the cultural and creative product design and their characteristics.

The study is based on Yang Yu Fu's (1998) cultural level theory, Leong's (2003) cultural spatial level theory and Norman's (2004) emotional designs level theory, and integrates relevant extensions. According to the above scholars, the cultural level can be divided into

three levels. One focuses on the social behavior layer, such as the function, behavior, and ritual of products. The second highlights on the physical/material layer, such as the visible appearance of the product, etc. The third emphasizes on the spiritual/ideal layer, such as culture, emotion and symbolic meaning. This study combines the discussion of experts and interviews with scholars, presented "Practical level", "Sensory level" and "Spirit level" to summarize the three value levels of cultural and creative product design, and list six representative characteristics of each value level, serving as the direction for the value evaluation of the cultural and creative products.

The core appeal of each design approach is different than others. A product of industrial design highlights the satisfaction at the practical level. On the other hand, a product of creative design emphasizes more on the satisfaction at the sensory level while a product of cultural and creative design highlights the satisfaction at the spiritual level. However, the design of a cultural and creative product is different from that of typical practical products, product decoration or a work of art. The optimal design of a cultural and creative product should not focus on a single level. Instead, it should reach a balanced state between these three levels including the enhancement at the practical and sensory levels in addition to the spiritual level. The efforts on these three levels should be leveraged depending on the design approach without partiality on any level. The best cultural and creative product design can combine multiple values to satisfy the diverse needs of the consumers, so that the consumers' demand for the product is from "need" to "want" and eventually the "desire" to have this product.

LITERATURE REVIEW

Discussions on value classification

Several scholars proposed different opinions regarding cultural or creative product values. The classification of culture level by Yang Yu Fu (1998), the spatial perspective of culture level by Leong (2003), and the emotional designs level by Norman (2004) are examples of such discussions. The scholars further expounded on the different discussions.

The classification of culture level

In the discussion of the cultural level, Yang Yu Fu (1998) divided the culture into three levels, namely, the natural level, the physical level and the metaphysical level. The natural level is the artifact culture, which is the object and the concrete visible form used by human beings; the physical level is the life culture, which belongs to the system of human interaction; the metaphysical level is the spiritual culture, which is a deep-structured thinking activity, spirit and the language, and refers to the spiritual culture of ideology and conscience which is intangible. Regarding the above-mentioned cultural level, Zheng Yumei (2004) then further reorganize the application of cultural integration design and interpret its connotation. Zheng Yumei believes that Yang Yu Fu's cultural levels are different from each other if they are transformed into the levels of the product design. The natural level focuses on the specific external features, and the physical level focuses on the real life experience. The metaphysical level focuses on the hidden feelings of the spiritual mind.

The spatial perspective of culture level

Leong (2003) proposed three levels of spatial perspective of culture which includes the Outer tangible level, the Mid behavioral level and the Inner intangible level. The Outer tangible level refers to the physical/material part-daily related object and tool; Mid behavioral level refers to the social/behavior part-human related ritual and custom, and the Inner intangible level refers to spiritual/ideal part-emotion, reflected art and religion as shown in figure 1.

With this inverted triangular frame as the foundation, Hsu (2004), Lin (2005, 2007) took a step forward in this, divided into three spatial perspective of culture level corresponding to the three layers of culture, and put forward each cultural layer to design features. Different layers of product design are different, from the Outer tangible level, the Mid behavioral level to the Inner intangible level, to list his response to the product design. The Outer tangible level focuses on the visceral design-appearance, form, color, line, texture, pattern and detail, the Mid behavioral level focuses on the behavioral design-function, usability, operation, safety and user pleasure, the Inner intangible level focuses on the reflective design-self-image, affection and cultural feature. This structure makes a clear response to the nature of the cultural characteristics of the product design.

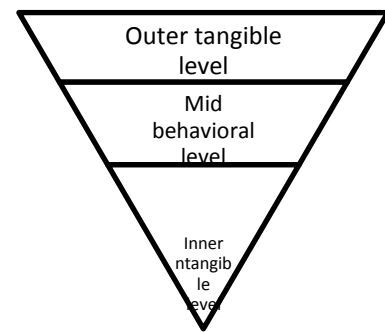


Figure 1. The "spatial perspective" of culture /Leong (2003)

Emotional designs level

Discussion on the level of product value, Norman (2004) proposed Emotional Designs. He believes that a perfect product design must cover three stages: Visceral level, Behavioral level and Reflective level, but also put forward each level corresponds to the design elements that needed emphasis.

Norman (2004) put forward the three levels to match the level of human needs. The Visceral level affects the consciousness before thinking about the design of the product, including the appearance of the product, touch, perception and feeling. The Behavioral level is related to the use of the product and the consumer's experience of the product, but the experience itself contains a lot of factors, such as function, performance and accessibility. Reflective level is the highest level of emotion, and awareness, it is easy to change with culture, experience, education, and individual differences.

Norman proposed the design factors that corresponds to each level, and analyzed the emotional response of the consumers, on the basis of the layer to achieve a complete consumer experience. The Visceral level on the design factors, mainly to strengthen the product's appearance; the Behavioral level corresponds on the design factors, mainly focuses on the effectiveness of the product process and pleasure; and the Reflective level corresponds on the design factors, mainly to strengthen the user's self-image of the product, a personal satisfaction and memories.

The above scholars have discussed the different value levels of cultural and creative product. Saussure (1966) is the first scholar to introduce the concept of linguistics into semiology. He proposed that each sign has two concepts including the signifier and the signified. The signifier indicates the signs that are detectable, audible, and visible at the physical/material layer. On the other hand, the signified indicates the abstract images in one's mind at the spiritual/ideal layer.

This concept can also be used to confirm the value of the actual product. The signifier of product is tangible, visible layer. The signified of product is abstract and intangible. The design of cultural and creative products needs to be both signifier and signified. In addition to the practical value and visual aesthetics, cultural and creative products should also boast the values of culture, emotion, signifier, and other intangible values, such as cultural, emotional or symbolic invisible value, to meet the different levels of consumer demand, which is the cause of cultural and creative products with high added value.

Literature summary – Classification of value layers

The levels of cultural value that is proposed by one of the scholars could be similar to or different from one another as shown in Table 1. Recently, more scholars corresponds the value levels to the design level of the product design. Their models can be classified into three categories. The first category focuses on the physical/material aspect such as a product’s visible appearance or features. The second category emphasizes on the application aspect including product function, users’ behavior and rituals. The third category highlights the spiritual/ideal aspect such as culture, emotion, and symbolic meaning. By summarizing the above discussions, the value levels can be classified into three dimensions, which are respectively the Physical/material layer, Social/behavior layer, and the Spiritual/ideal layer to be described as follows.

Table 1. Value layers of culture

Scholar \ Layers	Physical/Material Layer	Social/Behavior Layer	Spiritual/Ideal Layer
Yang, Yu-Fu(1998)	Natural level	Physical level	Metaphysical level
Leong(2003)	Outer tangible level	Middle behavioral level	Inner tangible level
Norman(2004)	Visceral level	Behavioral level	Reflective level

Physical/material layer

This layer refers to the physical aspect of the product that can be seen, and it emphasizes the aesthetic or creativity of the product. Yang Yu Fu’s (1998) and Zheng Mei’s (2004) Natural level, Leong’s (2003) and Hsu’s (2004), Lin’s (2005) Outer tangible level and Norman’s (2004) Visceral level, these theories focuses on the physical, visible, visual and material aspects. For example, the attributes that are transformed into product design focus on the visible features of the product, such as color, texture, shape, line, surface decoration, and detail processing. On the tangible material level, Dondis (1973) also proposed ten visual elements of graphic design, namely point, line, surface, shape, direction, hue, color, texture, size, and scale. Bowman (1990) sums up five elements of shape specifically, point, line, shape, hue, and texture. This value layer focuses on the "visible" aspect of the product. Scholars have always discussed the visual components, but they are still very similar to the visual elements listed above.

Social/behavior layer

This layer refers to the level of "use" or "user experience" of the product, emphasizing that the design of the product conforms to the consumer's behavior of using the product. The metaphysical level of Yang Yu Fu (1998) and Zheng Yumei (2004), the middle behavioral level of Leong (2003), Hsu (2004), and Lin (2005), and the behavioral level of Norman (2004) focus on the behaviors from the practical and functional aspect of a product. The relevant discussion focuses on the user behavior, ritual customs and other aspects, such as the attribute characteristics of product design, focusing on the practical functions, such as usability, operation, safety, and user pleasure (Hsu, 2004, Lin, 2007).

Spiritual/ideal layer

This layer refers to the psychological aspect of the product, and it highlights the capability of triggering a consumers’ spiritual perception. The Metaphysical level proposed by Yang Yu Fu (1998) and Zheng Yumei (2004), the Inner tangible level by Leong (2003), Hsu (2004), and

Lin (2005), and the Reflective level of Norman (2004) focus on the Inner tangible level. The related discussion focuses on the aspects of feeling, emotion and cognition, such as the attribute characteristics of product design, focusing on the self-image, affection, and cultural feature of the product (Hsu, 2004, Lin, 2007), most of the emphasis is on the inner spiritual satisfaction of the product.

METHODOLOGY AND PROCEDURES

Methodology

This study is based on literature combined with "Modified Delphi Method" to collect the experts' opinion for cultural and creative product's characteristic level of product value of screening. "Delphi Method" is a method of group decision making, anonymous experts collective decision-making, the problem needed to be addressed separately sent to the hands of the various experts consulted, then recovered summary of the collective opinions, and then analyze the results, along with new responses to the questionnaire as a correction to the previous reference of the experts' opinion. Experts then revised their original opinions based on the collected opinions and sum them up so that the distinction between the opinions of the experts is minimized and a consensus on the issues is reached (Hartman, 1981) (Delbecq, Van de Ven, Gustafson, 1975). The features of this study method are to invite experts in relevant fields to systematically collect opinions in an anonymous and written manner about a topic (Patton, 1986) [13], and use the feedbacks from each round to construct questions of the next round in order to achieve expert knowledge sharing (Awad & Ghaziri, 2006), which is a way to converge the experts' independent views and to achieve a final consensus.

Since the Delphi Method is more time consuming and not easy to control when applied, experts' opinion is also prone to conflicts, therefore Murry & Hammons (1995) put forward "a Modified Delphi Method". "A Modified Delphi Method" is substantially the same with the traditional statistical Delphi Method. The biggest difference is that the part of the open-ended questionnaire, typical for Delphi Method, is deleted, and the literature collection or the structured questionnaire developed and planned by researchers is adopted in the first round of the questionnaire, which not only can avoid the shortcomings of time-consumption but also enable expert opinions to focus on the research topics.

In order to save time and enhance the understanding of the interviewed experts about research topics, and enable experts to focus more on the research, the Modified Delphi Method is adopted to survey the experts' opinions. The research invited twelve experts in different areas of the questionnaire, which contains three scholars in the field of product design, three in graphic design, three in cultural and creative fields and three from non-academic background of the design. The study of literature is aggregated based on the first round of the survey. Every questionnaire and the previous questionnaires are collected to reach a consensus.

Study Procedures

This study combines the literature to conduct a survey of experts' opinions with the Modified Delphi Method. The experts enumerate and screen the attributes of the value level of cultural and creative products, and finally select the products through consensus. The most representative characteristic features of the value assessment of cultural and creative products are the most significant.

Expert questionnaire and aggregation 1: Attributes aggregate

The value level of product design and its corresponding characteristics can be concluded from the comprehensive literature. In order to combine the opinions of twelve experts and scholars, this study invites experts to list the attribute of product value level. The first round

of open-ended questionnaire is omitted in a semi-structured way. After inviting the scholars to take reference from the literature, the study makes use of the behavioral, physical, material, and spiritual layers to enumerate the relevant properties. This is displayed in the table below (Table 2).

Table 2. Integration of Attributes of Product Value Layer

Value layers	Attributes
Physical/material layer	point, line, surface, body, space, density, color, hue, shape, size, conjoin relationship, tactile sensation, material, structure, ornamentation, pattern, texture, detail processing, assembly component, dimension.
Social/behavior layer	operability, safety, functionality, practicability, structure, user pleasure, surprise, accessibility, interaction, effectiveness, convenience, durability.
Spiritual/ideal layer	cultural feature, historic significance, social significance, special emotion, special implication, story behind, special custom, symbolic meaning, religious significance, special ritual, ethical meaning, economic system, mythological beliefs.

Expert questionnaire and aggregation 2: Attributes screening

The design of cultural and creative products is distinctive from that of general ones, and their characteristics that consumer value is different from those of general products. Hence, based on the results of the combination of the attributes and characteristics of product value levels, twelve experts are invited to further screen the more essential attributes and characteristics of cultural and creative products from social/behavior layer, physical/material layer and spiritual/ideal layer which are shown below (Table 3):

Table 3. Screening of attributes of cultural and creative products

Value layers	Attributes
Physical/material layer	shape, pattern, color, texture, line, material, detail processing, assembly component, conjoin relationship, dimension.
Social/behavior layer	practicability, user pleasure, functionality, accessibility, interaction, operability, safety, effectiveness, convenience, durability.
Spiritual/ideal layer	cultural feature, story behind, special emotion, symbolic meaning, historic significance, special implication, social significance, special custom, religious significance, special ritual.

Expert Questionnaire and aggregation 3: Attributes ranking

After collecting the attributes and characteristics of cultural and creative products, twelve experts are further asked to rank them according to the significance of the attributes and characteristics of cultural and creative product design on a scale of 1 to 10. 1 signifies the highest importance and 10 is the least important in the design of products that are more valued. According to the survey, the integral and ranking of the attributes and characteristics of the value level of cultural and creative products are as follows (Table 4):

Table 4. Sequencing of attributes of value level of Cultural and Creative Products

Table 4-1 The ranking of Physical/material layer										
Attributes	Shape	Color	Pattern	Texture	Material	Line	Assembly component	Detail processing	Conjoinrelationship	Dimension
Summation	17	33	38	50	63	70	90	91	100	108
Rank	1	2	3	4	5	6	7	8	9	10

Table 4-2 The ranking of Social/behavior layer										
Attributes	Practicability	User Pleasure	Functionality	Accessibility	Operability	Convenience	Interaction	Effectiveness	Safety	Durability
Summation	28	33	39	58	66	75	84	91	92	94
Rank	1	2	3	4	5	6	7	8	9	10

Table 4-3 The ranking of Spiritual/ideal layer										
Attributes	Cultural feature	Story behind	Special emotion	Symbolic meaning	Historic significance	Special implication	Social significance	Special custom	Religious significance	Special ritual
Summation	24	30	53	57	62	69	72	85	100	108
Rank	1	2	3	4	5	6	7	8	9	10

Expert consensus aggregation: Attributes of cultural and creative products

At the end of the research, experts' views are summarized, screens out the attributes of cultural and creative products, and takes the six attributes with the highest ranking from each value level. The results are collected and fed back to scholars for final confirmation. According to the viewpoint of the experts' final consensus, the representative attribute of cultural and creative products are shown below (Table 5).

Table 5. The attributes of cultural and creative products

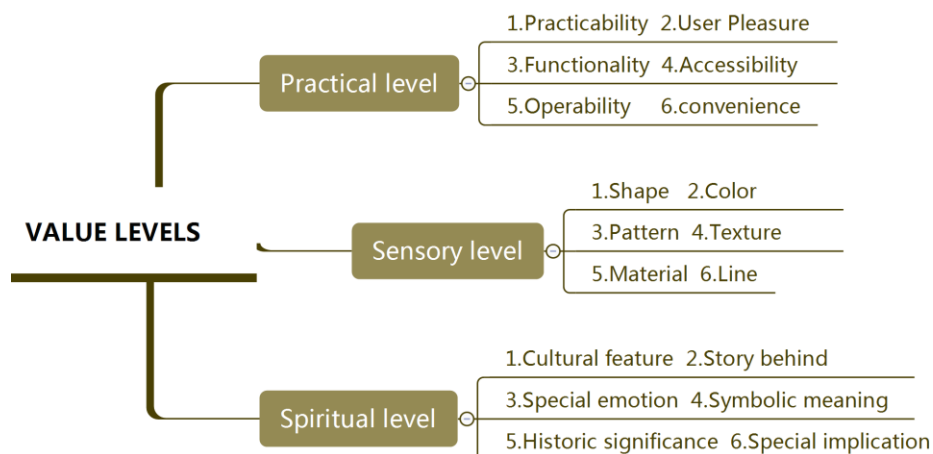
Table 5-1 Physical/material layer attribute characteristics consensus :						
Attributes	Shape	Color	Pattern	Texture	Material	Line
Rank	1	2	3	4	5	6
Table 5-2 Social/behavior layer attribute special degree of consensus:						
Attributes	Practicability	User Pleasure	Functionality	Accessibility	Operability	Convenience
Rank	1	2	3	4	5	6
Table 5-3 Spiritual/ideal layer attribute characteristics consensus:						
Attributes	Cultural feature	Story behind	Special emotion	Symbolic meaning	Historic significance	Special implication
Rank	1	2	3	4	5	6

Through the “Modified Delphi Method” survey, the attributes of the product in the physical/material layer are in terms of shape, color, pattern, texture, material and line, and the attribute features that are more significant at the social/behavioral layer are practicability, user pleasure, functionality, accessibility, operability and convenience. In the spiritual/ideal layer, the more important attributes are cultural feature, story behind, special emotion, symbolic meaning, historic significance and special implication. From the above three value layers and their corresponding attributes, we can see that the attributes of cultural and creative products are different from those of general products. This study is to separate the value layer of cultural and creative products from that of general ones and to further define and classify the value layers of cultural and creative products.

RESEARCH RESULTS

Value levels of cultural and creative products

Table 6. Value levels of cultural and creative products



Based on the above findings, this study intends to summarize a layer of values corresponding to the design of cultural and creative products. The design of cultural and creative products can be divided into three levels according to different attributes, characteristics and design requirements, namely, the "Practical level", "Sensory level" and "Spiritual level" (Table 6).

The product design illustrates different design needs, focusing on a single value and multiple values, but the design of cultural and creative products should be able to have multiple values, while focusing on the Spiritual level, Practical level and the Sensory level without partiality.

Practical Level

On the social/behavior layer of cultural and creative products, based on the review of relevant studies and experts' viewpoint, emphasizing on cultural and creative products are practicability, user pleasure, functionality, accessibility, operability and convenience. This value level focuses on the practical application or consumer's experience of products. In this study, this level of value is called the "Practical level". The cultural and creative design in this level emphasizes whether the design of the product is practical, functional or pleasant.

The "Practical level" belongs to the engineering level. This level refers to the production of functional sound, security and versatility. Consistent with human factors engineering, user-friendly product, it is a physical product-oriented that ables to meet the needs of people (Yan Huiyun, 2014). In fact, the development of a new product is part of the engineering design that takes part in the effort spent and marketing of products in the market (Michalek, Feinberg, and Papalambros, 2005).

Most of the products with "Practical level" as the main demand are general household goods or industrial design products, which focus on the practical application level. Nevertheless, the design of modern products can take into account different needs. This is especially true for the design of cultural and creative products, which need to have multiple values. If the design of cultural and creative products lacks practical value, it will easily become useless product which is not connected in real life. Therefore, cultural and creative product design should consider the needs of "Practical level" to meet the demands for consumer use and experience aspect.

Sensory level

On the physical/material layer of cultural and creative products, based on the review of relevant studies and experts' viewpoint, the attributes and characteristics of cultural and creative products are the product's shape, color, pattern, texture, material and line, This value level focuses on the visual level such as product appearance, which is called "Sensory level". The design of creative products in this value level focuses on whether the visual combination of products is aesthetic or creative.

In the "Sensory level", the different attributes and features shape different aesthetic perceptions and creativity so that a product can generate its unique attractiveness. Blijlevens (2009) pointed out that when a designer is creating a new product, they are concerned about the physical attributes of the product design, such as color, shape, material and size. However, when consumers are choosing a product, they perceive the product's characteristics, appearance, and style as a whole. It can be seen that consumers' perception of the product is not formed by a single visual element, but by combination of different attributes.

"Sensory level" is the key to attract consumers' attention. Ashby and Johnson (2003) believes that if the product only has the basic conditions of function and safety, it can not fully satisfy

consumers, while the aesthetic, association and perceived conditions of the product can improve consumers' taste and personal image, which will affect consumers' purchasing decisions. Hassenzahl (2004) stressed out that the feeling of beauty is the best way to evaluate the overall impression of a product, and the beauty of the product can improve the overall satisfaction of consumers. Blijlevens (2009) pointed out that the appearance of a product can affect consumers' choice. Bahn (2009) also pointed out that the physical aspect of a product is a key factor affecting people's mood and attention. LinRongtai (2013) put forward five qualia factors of emotional value. In addition to engineering, attractiveness, beauty, creativity and delicacy are all senses constructed by visual modeling.

Most of the products with "Sensory level" as their main appeal are creative design products. The core value of their design focuses on the aesthetic and creativity of the products. The design of the products through the innovative collocation and combination of visual elements will produce exquisite, novel and creative feelings, and then promote consumers to produce spiritual joy and touching. Thus, the "Sensory level" is the most important value level for attracting consumers' attention in the design of cultural and creative products.

Spiritual level

On the Spiritual/ideal layer, combining the literature and expert's viewpoints, the attributes and characteristics of cultural and creative products are cultural feature, story behind, special emotion, symbolic meaning, historic significance and special meaning of the products. This level focus on product value in the intangible spiritual level, this study refers to this as the "Spiritual level". In this value level, the design of creative products focuses on whether the design of products can integrate special cultural features, stories, emotions or unique symbolic meanings, historical importance or meanings enabling consumers to further deepen their recognition of the culture or meet the personal demands at the spiritual level.

Verganti (2013) pointed out that the product should be equipped with two levels of meaning. The first level is the practical level which deals with function and performance. The second level is equally important and it is related to the symbol, recognition, and emotion. Throsby (2001), an Australian economist, points out that cultural product is different from other products since it creates not only economic values but also unique cultural values. He believes that cultural values must have certain characteristics, such as aesthetic value, spiritual value, social value, historical value, symbolic value, etc. Among these five types of cultural values, only the aesthetic value is at the tangible material level since it presents a product's external aesthetic characteristics. Other cultural values belong to the intangible spiritual level.

The "Spiritual level" is the value of cultural and creative products which are different from general products. Designers bring the spiritual connotation of products through visual elements such as the shapes, patterns, materials or colors, so that the products no longer focus on their functionality and aesthetics. Consumers can meet the diverse needs of the product through aesthetic perception, culture, story, emotion and other factors, and also includes spiritual satisfaction besides practical and aesthetic.

Classification of cultural and creative product values

Maslow (1943) used the pyramid image to present the theory of demand hierarchy. The demand hierarchy theory according to the intensity of demand is physiological needs, safety needs, love and belonging needs, esteem needs and need for self-actualization. According to the theory of human needs, physical/material needs must be met before mental/spiritual needs. Demands are most common at the bottom of the pyramid while the need for self-actualization is at the top.

In this study, the value levels of cultural and creative products are in different levels in a pyramid according to different core needs. From bottom to top are “Practical level”, “Sensory level” and “Spiritual level”. The bottom to top level deals with the most fundamental needs rather than the importance of the demand. The “Practical level” focuses on product application and experience aspect which is the most common and direct demand in life and is located at the bottom of the pyramid. The “Sensory level” focuses on the visual aspects of the product's appearance and features, and is designed to satisfy the aesthetic and therefore it is at the middle of the pyramid. The "Spiritual level" focuses on the invisible and internal spiritual aspect, emphasizing on the integration of cultural implications, stories and emotions, and at the top of the pyramid as shown in (Figure 2).

Products with different design orientations have different core demands. Practical level focuses on the level of practical application or consumer’s experience of products, such as household goods or industrial design products. Sensory level emphasizes on aesthetic and creativity, such as creative design products. Spiritual level emphasizes on product’s cultural features, stories and emotions which are not only the household goods core demand, but also have different values, different from, decorative goods and works of art.

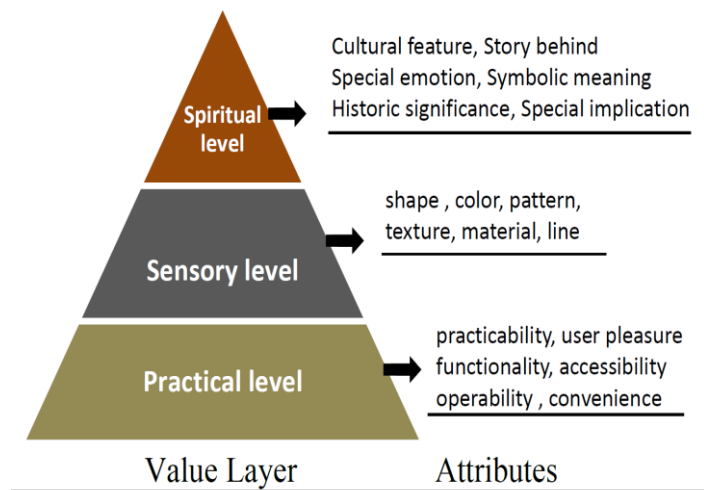
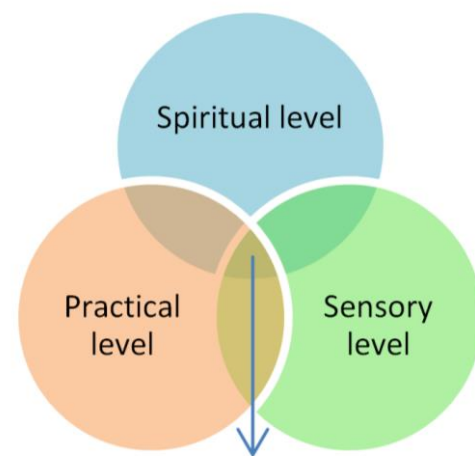


Figure 2. Cultural and Creative Product Value Classification

Scott (1997) believes that cultural products meet the function of the mind more than practicality. Lin (2005) points out that since twentieth century, the development of design has progressed from design for function, to design for friendly, design for fun, and design for fancy, to design for feeling. The development is directed from the satisfaction by functions to the feeling by experiencing, whose core value is evolving from functional and physiological needs to aesthetic and psychological needs. It can be seen that the design of modern products is gradually changing from functional value to spiritual value.

Power (2002) believes that cultural industry is a product and service that determines value by aesthetics, symbols, sensations and experiences. Ho (1996) points out that the difference between cultural and creative products and general products lies in the function of a cultural identity. It is visible that the design of a cultural and creative product is different from the general practical product or the cultural and creative product with the aesthetic as the core. Therefore, the design of cultural and creative products should not focus on a single level of value, but should balance the three levels. In addition to satisfying the basic practical needs of consumers, it can also integrate culture and emotion into product design



An optimal cultural and creative product

Figure 3. Cultural and creative product

through creative design techniques, which not only makes the product have unique aesthetic feeling, but also can arouse the satisfaction and touch of consumers to enhance the competitiveness of products in the market (Figure 3).

CONCLUSION

This research combines the literature summary and expert's viewpoint to try to construct a reference for the evaluation of the value of cultural and creative products. The research divides it into three levels according to different design attributes and consumer's needs, namely "Practical level", "Sensory level" and "Spiritual level". The core values of product design with distinct attributes are different.

The "Practical Level" focuses on product application and experience satisfaction, focusing on product practicability, user pleasure, functionality, accessibility, operability and convenience. The "Sensory level" satisfies people's needs for aesthetic and creativity aspects of product appearance, such as product's shape, color, pattern, texture, material or line. The "Spiritual level" meets the satisfaction of human intangible needs and the performance of the internal spiritual aspect, such as products with special cultural feature, story behind, special emotion, symbolic meaning, historic significance or special meaning.

Nonetheless, the value of cultural and creative product design is diversified. The best cultural and creative product design should not only focus on a single value level, but also take into account the balance of the three levels. Hence, a well-designed cultural and creative product not only has practical value, but also has sensory and spiritual value. The proportion of the three value levels depends on the differences of product design attributes. The visual design attributes have their own preferences but are not neglected. It is the best creative product that can balance the three attributes, and only products that can satisfy the diverse needs of consumers that can trigger the satisfaction and sense of touching, enabling the promotion of consumers' demand for the product from the level of "need" to "want", and then to "desire", thus enhancing the competitiveness of the product in the market. In the future, product designers can base on this attributes before finalizing their products and assess if they have a balance cultural and creative value levels.

REFERENCES

- [1] Ashby, M., & Johnson, K. (2003). The art of materials selection. *Materials today*, 6(12), 24-35.
- [2] Awad, E. M., & Ghaziri, H. (2006). *Knowledge management*. Publisher: Prentice Hall.
- [3] Blijlevens, J., Creusen, M. E. H., & Schoormans, J. P. L. (2009). How consumers perceive product appearance: The identification of three product appearance attributes. *International Journal of Design*, 3 (3), 27-35.
- [4] Cheng, Y. M. (2004). The constructing of cultural design model : The application of Chinese traditional culture in the product styling model. Taiwan: National Taipei University of Technology.
- [5] Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes*. Chicago: Scott, Foresman and Company.
- [6] Dondis, D. A. (1973). *A primer of visual literacy*. Cambridge, MA: The MIT press.

- [7] Hartman, A. (1981). Reaching consensus using the Delphi technique. *Educational Leadership*, 38 (6), 495-497.
- [8] Hsu, C. H., Lin, R., & Chiu, W. K. (2004). A study of Taiwan aboriginal cultural product. Taipei: National Taipei University of Technology.
- [9] Leong, B. D. (2003). Culture-based knowledge towards new design thinking and practice-A Dialogue. *Design Issues*, 19 (3), 48-58.
- [10] Lin, R. T. (2007). Transforming Taiwan aboriginal cultural features into modern product design: A case study of cross-cultural product design model. *International Journal of Design*, 1 (2), 45-53.
- [11] Lin, R. T. (2013). Preface - From curatorial design to creative brokers. *Journal of Design*, 18(4).
- [12] Lin, R. T. (2005). Human Technology: Kansei Designs. *Cultural Creativity, Art Appreciation*, 1(5), 98-103 .
- [13] Lin, R. T. (2005). Cultural creativity design added value. *Art Appreciation*, 1(7), 26-32.
- [14] Michalek , J. J., Feinberg, F. M., & Papalambros, P. Y. (2005). Linking marketing and engineering product design decisions via analytical target cascading. *Journal of Product Innovation Management*, 22(1), 42-62.
- [15] Murry, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *The Review of Higher Education*, 18(4), 423-436.
- [16] Norman, D. A. (2004). *Emotional design: Why WE love (or hate) everyday things*. New York: Basic Books.
- [17] Patton, S. R. (1986). *Infiltration basins as a stormwater management alternative for the Piedmont Region of Georgia*. USA: University of Georgia.
- [18] Saussure, F. (1966). *Course in general linguistics*. New York: McGraw-Hill Book Company .
- [19] Scott, A. J . (1997). The cultural economy of cities. *International, Journal of Urban and Regional Research*, 21, 232-339.
- [20] Throsby, D. (2001). *Economics and culture*. Cambridge: Cambridge University Press.
- [21] Verganti, R. (2009). *Design driven innovation: Changing the rules of competition by radically innovating what things mean*. USA: Harvard Business School.
- [22] Yang, Y. F. (1998). *The cultural foundation of the design: Design, symbol, communication*. China: Asia - Pacific Press.