EXPLORATION OF CULTURAL ELEMENTS AND DESIGN OF CULTURAL
CREATIVITY PRODUCTS IN REMOTE DISTRICTS

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ABSTRACT

This research explored unique cultural elements in remote districts and developed cultural creativity products to conform to local culture image in consideration of cultural, creative, artistic and functional aspects. In order to achieve the objective, this study takes the remote districts in Pingtung County image in Taiwan as an example. The cultural elements can be explored from understanding the historical perspective and the local culture in Pingtung County, then combined the cultural elements and life popular product by way of creative design. During creative development stages, CAD software was used to design a series of cultural creativity products. Afterwards, the prototypes of cultural creativity products are made by rapid prototype system. The research development model can be extended to develop related cultural creativity products for other remote districts. Also, results in this study can be provided valuable references for academic circles and related industries.

KEYWORDS

Cultural Creativity; Remote District; Cultural Element; Cultural Creativity Product.

1. INTRODUCTION

Globalization is an important channel for helping the growth companies. However, the pursuit process of the globalization, how to preserve local characteristics to create a distinguishing feature is increasingly important for the enterprise (Moalosi et al., 2004). The cultural creativity industry is the activity of local actions based on the thinking of the globalization. The globalization is the social life striding across space and time by separating out the social situation and resulting in the interactive correlation process among society, culture, system and individual (Featherstone, 1993; Giddens, 1990).

Cultural industries have been defined as systems for controlling innovation through gatekeeping processes (Hirsch, 1972). The cultural industry fits the fashion industry, since a new collection is produced through a sequence of gatekeeping activities, which were identified by Blumer (1969). For example, while examining Italian fashion as a cultural industry, it can be interpreted as the product of negotiations between the interests of collective actors and those of individual actors. In other words, it operates as a system for the production of social meaning (Hesmondhalgh, 2002; Mora, 2006).
The cultural creativity industry has listed as Taiwan's national prioritize plan since 2002, and become one of the most important industries in recent years. In 2009, the cultural creativity industry was included in one of six emerging industries in Taiwan. Many countries devote themselves to combining the cultural creativity with life products by using creative design to develop cultural creativity products with the functionality, art and cultural element and promote attached values of the life products (Lee, 2010). Additionally, the cultural creativity industry is one kind of creative industries combining culture, economy, technology, creativity, design, emotion, and humanity and can promote attached values of the life products via converting cultural connotation to creativity element. In the affluent society, the cultural connotation has already become product itself the important special characteristic. During the age of knowledge economy, how to create the maximum use efficiency and value under the limited resources becomes the industrial strategy for all countries in the world. Combining the utilization creativity, the innovation strength, technical ability, cultural art and the technology not only have the high economic efficiency but also lead the employment opportunity. The cultural creativity industry can achieve the above-mentioned benefits.

Each country has the unique history, special culture, and the particular representative image. For example, France's Eiffel tower, Australia's kangaroo and koala, US's free goddess, Japan's Mt. Fuji, Thailand's four sides Buddha and so on. Also, Taiwan owns unique histories and cultures. It is necessary to develop several life products with cultural image in Taiwan to enable the majority peoples to approve. Local identity is from personal experience through the emotional experience of the environment and activities into shared memories to become a part of self-experience (Claval, 1998; Massy & Jess, 1995). In addition, it is important to inherit and market culture in order to establish representative cultural image by using the cultural creativity product (Lee, 2011). In view of above descriptions, it is necessary to develop a series of products with cultural image in Taiwan to enable the majority peoples and foreigners to approve.

The objective of this research is to develop cultural creativity in exploring unique cultural elements in remote districts. Furthermore, the research would like to develop the cultural creativity products to conform to local image in consideration of cultural, creative, artistic and functional aspects. In order to achieve the objective, this study takes the remote districts in Pingtung County image of the Taiwan as an example. The cultural elements can be explored from understanding the historical perspective and the local culture in Pingtung County, then combined the cultural elements and life popular products via creative design. During the creative development stage, the CAD (computer aided design) software is used to design and construct 3D Model of the cultural creativity products. Afterwards, the prototypes of cultural creativity product made by rapid prototype system are adopted to evaluate the cultural image. Additionally, the development model in this study can be extended to develop related cultural creativity product for other remote districts in Taiwan. Furthermore, research results can be provided valuable references for academic circles and related industries.
2. METHOD

This study focuses on exploring the unique cultural elements in Pingtung County and designs a series of cultural creativity products. Therefore, several research stages including data collection with regard to local culture, extraction of the cultural elements, the creative transformation of the cultural elements, idea development of the cultural creativity product design, feasible assessment of the creative ideas, 3D modeling by CAD software, and 3D solid models by three-dimensional rapid prototype system are necessary.

2.1 Data Collection and Extracting the Cultural Element

In the first stage, this research wants to understand the characteristic of the local culture by data collection, investigation and analysis. Consequently, the questionnaire about the Pingtung County image is used to help collecting cultural image data. After completing the investigation, the cultural image of Pingtung County was able to be understood by statistical analysis. In other words, cultural elements regarding the Pingtung County image can be extracted the important characteristic from these representative cultural images.

2.2 The Creative Transformation of the Cultural Elements and Feasible Idea Assessment

The study adopted the characteristic of the cultural element and transformed them into idea of the cultural creativity product by computer vector graphics. Afterwards, this study applied the focus group method to explore the relationship between the popular life products and the cultural elements. The focus group method is often used for to appraise the users’ demand by brainstorming of the group. More detailed descriptions and procedures about focus group method have been clarified in related researches (Caplan 1990; Goldman and McDonald 1987; Greenbaum 1998; Krueger, 1988; Morgan, 1998; O’Donnell et al. 1991). For example, Lee (2010) extracted the cultural image of the representative landscapes regarding Kaohsiung image of the Taiwan and pondered the creative way to match the suitable daily necessities. This study also uses the focus group method to evaluate the feasible ideas of the cultural creativity products.

2.3 Construction of the 3D CAD Model by Rapid Prototype System

The three-dimensional printing system is used to make the 3D mockup of the cultural creativity products. For the sake of accurately controlling the precise size of the culture creativity products and to help the following assessment, the 3D CAD software adopted here is necessary. Also, 3D CAD software is able to carry on the interference inspection. After evaluating the commercial feasibility, the three-dimensional rapid prototype is applied to make the realistic mockup of the creative products.

2.4 Apparatus/Material

The 3D CAD software and high-tech hardware are adopted in this study. Regarding the 3D CAD software, the SolidWorks is adopted to construct the 3D models of the feasible ideas regarding the cultural creativity products in this research. After finishing the modeling of the 3D CAD, the rapid prototype system (Dimension SST 768) is used to
assist in making realistic 3D mockups. With regard to the operating process of the Dimension SST 768, seven streamlined steps are described as follows:

Step 1: Construct 3D models of the feasible idea of the cultural creativity products by 3D CAD software (Solidworks used in this study).

Step 2: Convert 3D file format producing by the Solidworks to STL accepted by the rapid prototype system.

Step 3: Adjust the XYZ axis direction of the 3D model to the proper perspective and process the STL.

Step 4: Estimate the model and support material needed by the output model and allocate the 3D model file on the suitable position of the forming pad on the rapid prototype system.

Step 5: Confirm above correct steps and push the “start” button on the interface of the rapid prototype system to form the 3D mockup.

Step 6: Utilize the vise to separate model material from the support material.

Step 7: Utilize the ultrasonic cleaner to clean up the 3D mockup.

Regarding the illustrations of the forming process of the rapid prototype system, please see more detailed descriptions referred to the research content by Lee (2010).

3. EXPLORATION OF THE CULTURAL ELEMENTS

3.1 Remote Districts in Pingtung County Explored in this Study

Considering the characteristics of township, the main townships of the remote districts in Pingtung County were explored in this study includes Fangshan, Shuangliu, Dafu, Hengchun, Dongyuan, Jiadong, Sandimen, Wutai, etc.

3.2 The Cultural Element for each Township

This study designs a questionnaire with enclosed type in order to explore cultural elements regarding the remote districts in Pingtung County. A total of 200 residents living in Pingtung County over 10 years participated in this investigation, 108 males and 92 females, with ages ranging from 18 to 65 (mean=43.6, SD=8.5), and possessed quite familiar cultural transition in Pingtung County. Results showed that the main representative cultural elements for each township included “Irwin Mango” in Fangshan Township, “Hat Mountain” in Shuangliu Township, “Stone Vase” in Dafu Township, “Onion, Sisal, and Port Tea” in Hengchun Township, “Butterfly Ginger” in Dongyuan Township, “Siniensis” in Jiadong Township, “Wild Lily” in Sandimen Township, “Clouded Leopard and Eagle” in Wutai Township and so on.

3.3 The Relationship between the Main Representative Cultural Element and Life Products by Focus Group Method

This studyextracts the cultural image for each township by way of focus group method. Six product designers are invited to participate in the focus group. One of the six product designers is elected as the chairman of the focus group. In this study, the focus


