

## Decompose the Model of Value Creation for Cultural and Creative Industry from Industrial Characteristics

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**Abstract**—For decades, industrial policies in Taiwan are mostly focus on high technology industries and have developed an effective subsidy models. However, over the last few years, the culture and creative industries (CCI) have become another economic force. The culture and creative industries subsequently gained a new challenge on the political agenda. Moreover, Taiwan successful industrial policy and experience in high tech industries is difficult to transfer to CCI. We think the challenge comes from that policy and subsidy model should be adjusted according to industrial characteristics but there remain important gaps in what we know a lack of understanding of how the industrial characteristics influence the CCI to create value; and a clear view of what the strategic investment competitive advantage in these industries lies.

Therefore, we adopted exploratory case study method to analyze deeply one research question: what are the value drivers of CCI. This study found that CCI has four value drivers, which are novelty, complementarity, network externality and resource scarcity. The results of this study will help the growth of the cultural & creative industry in Taiwan, rapidly and successfully improving its competitiveness.

### I. INTRODUCTION

In recent years, cultural and creative industry has become the new industry pursued by different countries, while the definitions and scopes differ according to the policies and industries. It is also called “creative industry”, “culture industry” and “cultural and creative industry”. The definitions and scopes are overlapping and unique upon special industrial structures.

In 1994, Australia first published the white paper of “Creative Nation”, and confirmed the economic orientation that culture creates wealth and development that cultural policy is equal to economic policy. The government of UK founded the “Creative Industries Task Force” in 1997, and proposed creative industry mapping document in 1998. In the document, the term “creative industry” was officially adopted, and the document became the important criterion of similar studies of the governments in different countries (including Taiwan, New Zealand, Singapore and Australia) and cities (such as Queensland, London and Barcelona) [13]. The United Nations Conference on Trade and Development (UNCTAD) also clearly defined creative industry, and the definition emphasized the concept of “industry”. Thailand followed and revised the definition of UNCTAD.

United Nations Educational, Scientific and Cultural Organization (UNESCO), Finland and Singapore adopted the concept of “culture industry”. Singapore proposed the concept of “city of the Renaissance”, and set the objective to

turn Singapore into an important art city in Asia. UNESCO particularly suggested that culture industry could be treated as creative industry, and it was the first definition which connected culture industry with creative industry. In 2003, Taiwan started introducing cultural and creative industry. It not only adopted the element of “personal creativity” defined by the UK, but also included the concept of “cultural accumulation” and used “cultural and creative industry” upon culture and creativity. The scope included craft, publishing, product design, visual communication design, designer fashion, architecture design, visual arts, music and performing arts, cultural facilities, creative life, digital content (on-line game industry and digital music industry), film, broadcasting and TV, advertising, pop music and cultural content industry.

“Creative industry”, “culture industry” and “cultural and creative industry” are not defined by a consistent term, and the differences among these terms are unclear. For instance, in literatures of Mainland China, three terms are common and the meanings are similar. Undeniably, with the development of knowledge economy, culture and creativity become the important force of economic growth. Economic and social effects of culture and creative field are increasingly significant. However, while the countries actively intervene by policies, the academia rarely concerns about the field. Some scholars have indicated such phenomenon [2].

According to research findings above, definitions and scopes of cultural and creative industry are inconsistent [11]. However, this study suggests that “creative industry”, “culture industry” and “cultural and creative industry” include the elements below: “creativity”, “cultural resources” and “industry” and their focuses are slightly different. Therefore, in this study, cultural and creative industries are those industries which transform individual creativity into value creation model with profits by the context of cultural resources such as advertising, architecture, design, music etc.

### II. CONCEPTUAL BACKGROUND

#### A. Industrial Characteristics

Different countries define CCI differently, and the scopes are inconsistent. However, according to the conceptual development and literatures, there are different origins of “culture industry” and “creative industry”. Based on the analysis of [25], the term “culture industry” was proposed by Adorno and Horkheimer, who are the scholars of Frankfurt School in 1947. They tried to explore the disadvantages of “cultural industrialization” from critical perspective. The

concept creative industry derived from industrial policies promoted by Australia (creative nation, 1994) and UK (creative industry, 1997). From practical perspective, it connected individual creativity and economic development. In fact, although two industries are categorized differently, they share some similarities in the characteristics.

As to culture industry, [14] suggested four features of culture industry: 1) high original manufacturing cost and low reproduction cost; 2) high investment risk with the possibility to acquire excess profits; 3) in comparison to other industries, the piracy cost is low; 4) protection on intellectual property rights in different countries is incomplete. Thus, the public struggle between the encouragement of more prominent cultural products and experience with cultural products by low prices. Based on text production and reproduction, [12] suggested three characteristics of cultural industry, including high risk, high production cost, low re-manufacturing cost and semi-public goods.

Reference [9] further indicated that cultural products must satisfy the market and create higher profits by maximum value. In addition, value of cultural products is based on the consumers' subjective cognition. Thus, uniqueness upon novelty or difference can enhance the differentiation and attract the customers' value sources. However, by creating a series of product catalogues or repertoires to segment the markets, it will not only expand the needs, but also avoid the risk. Regarding the construction of uniqueness and mass reproduction, [9] suggested creating scarcity by copyright to allow companies to control the reproduction rights of cultural products.

In terms of the impact of information and communication industry development on culture industry, besides the above three characteristics, [8] suggested "the effect by technology" and indicated that the key to acquire the profits is the control of technology instead of the offering of the original products or services. In addition, since the complete services or products of cultural products must be delivered by complicated value chain, it is necessary to consider the systematic concept of "relative production" and create the value above single activity by varied value activities of complementarity.

The characteristics of culture industry can be generalized according to the above discussion. First, culture industry and software industry are similar, which both focus on content, and thus the development cost is high and reproduction cost is low. Therefore, value of cultural products is from the number of the customers; in other words, it is necessary to create network externality. With high development cost, uncertainty of the consumers' needs increases the investment risk of early development.

As to cultural products, by combination of new elements and creation of new manufacturing, novelty or difference of the products will be developed, and it will enhance the differentiation for the customers. In addition, in order to satisfy different consumers' needs and segment new market, investment risk can be lowered. Reproduction of cultural

products must be protected by intellectual property rights; thus, the source of value is to create resource scarcity by laws. In the trend of high degree of digitalization, the control of technology also means the control of value. Value of cultural products cannot be delivered by single value activity and it must rely on re-combination of systematic activity. Thus, overall value is from the bundle of varied supportive and complementary products or services, such as performance art industry.

### *B. Value Drivers*

In recent years, in the fields of strategy, marketing management, entrepreneurship and innovative policy, value creation source, drive and value acquisition model of cultural and creative products have become important research issue and focus of discussion [2]; [5]; [15]; [16]; [23]; [20].

#### **1. Value chain**

In past literatures, value creation logic of cultural and creative products is relatively described and demonstrated. First, in input-output value chain analysis [1]; [20], new value of cultural and creative products is originated from production of intermediate 'creative' inputs on other industries [20]; [26] and it can increase the value, such as design industries.

#### **2. Theory of strategic network**

New value of cultural and creative products will be from re-intermediate value activities. By connecting the buyers and sellers, different businesses or the customers, it leads to value co-creation or social network markets [21]. The guards of the fields [6] design celebrity marketing and create the effect of celebrity endorsement in order to increase exchange value, such as fine arts [5] and digital media industries [21].

In re-intermediate industry operation, exchange value should be increased by the construction of community relationship and value co-creation or social network markets. Reference [5] found the significant influences of the authorities. Information released by the cognoscenti is delivered to investors and collectors by different stages as the waterfall or directly delivered from the cognoscenti to the collectors. It finally creates the demand curve of demand queue and higher marginal value added [5].

Reference [24] suggested that in CCI, since the creators have unique personality traits, when they encounter new technology or business environment, they usually cannot adapt to it and have different values. Therefore, it lacks the effective tie between upstream cultural creativity and downstream business application. Some enterprises regard themselves as "value creation organizers" [19]. As the organizations, they design the creative business model, play the role as the bridge between upstream and downstream, as the network tie to attract the members and become the key in the development of CCI. They also establish the niche of creation, such as performance art industry, creative life industry, etc.

**3. Transaction cost theory**

According to transaction cost theory, technology creation leads to dis-intermediate value activities. The transaction cost of music CDs is lowered significantly; thus, businesses must adjust and reconstruct the industrial structures, establish varied strategic networks [22], develop different innovative carriers or profit platforms, such as online games and digital music industry, in order to acquire the indirect value.

**4. Resource-based view**

Value of creative products is from continuous investment of creativity in value activities [4]; thus, the application of resources becomes varied with the recombination. For instance, fashionable hip-hop music which was originated from New York is based on the original music elements, such as disc or tapes. By mixing and matching, it becomes the important identity of young people’s subculture [17]. The value created is upon the young people’s collective creativity. However, the more important is the reproduction and reuse of the identity elements which result in the reproduction of subculture and create indirect value such as fashionable clothing, artistic works, pop music, dance and dramas.

Recombination and multi-application of the resources are the “differentiation strategies” of design. For instance, ASUS created the “cross-field” or “cross-industry” characteristics by treating leather or wood as the design elements, and it could break through the consumers’ original impression of the products and create surprising “reverse experience” effect. Thus, after re-packaging, the products will show higher value added [3], such as film industry, broadcasting and TV industry, pop music industry etc.

**5. Summary**

Based on the above, cultural and creative products include four types of value creation: novelty or difference, complementarity, network externality and resource scarcity. Since the characteristics of cultural and creative products are different from common industries [2], formations and acquisitions of four types of value are different. Types of resource invested or capacity of resource invested are different from common industries [18]; therefore, research should first review the essence of different industries in order to introduce the key issues of cultural and creative products, and explore the suitable mechanisms of development, as shown in Table 1.

III. CASE STUDY

This study aims to find “how” CCI creates value and explore the value sources of different industrial characteristics. Since the focus is on “how”, it generally relies on different phenomenon and proofs. The researchers can hardly control the events. Based on the orientation upon theories [7], case study is more commonly adopted [27]. As to the selection of the cases, this study extracts one representative case from each industrial characteristic and theory to elaborate the sources of value creation.

*A. Infini*

Infini founded in 1983 is located in Hsiushui Township, Changhua County, and currently has approximately 30 employees. It launched the business by TIME SWITH which was applied to different kinds of electrical appliances. Because of the prospect of bike industry and the inconvenience caused by the size of the lamp, the company

TABLE 1 TYPES OF VALUE CREATION OF CULTURAL AND CREATIVE PRODUCTS

<b>Characteristic s of CCI</b>	Novelty or difference	Complementarity	Network externality	Resource scarcity
<b>Theoretical base</b>	Value chain	Theory of strategic network	Transaction cost theory	Resource-based view
<b>Value sources</b>	To create differentiation in value activities in order to enhance value added.	Operation of community relationship: value co-creation or construction of social network market to increase value added.	To form strategic network, develop innovative carriers or profit platforms and result in indirect value.	By accumulation of resources and capacity, it continuously introduces novelty and creates new value by products, services or intellectual property.
<b>Industrial scope<sup>1</sup></b>	craft industry ,publishing industry, product design industry, visual communication design industry, designer fashion industry, architecture design industry	visual arts industry, music and performing arts industry, cultural facilities industry, creative life industry	digital content industry(on-line game industry and digital music industry)	film industry, broadcasting and TV industry ,advertising industry, pop music and cultural content industry
<b>Case study</b>	Infini	Ten Drum Percussion Group	PlayCoo Corporation	Tittot
<b>Product/Service</b>	bike lamp	theme park	on-line game	crystal decoration

Data source: this study

<sup>1</sup> The scope is based on the definition of “cultural and creative industries development act” in Taiwan.

started developing LED technology, and created high-quality and exquisite bike lamp, which was the 3C product in traditional manufacturing industry. However, due to the OEM competition in China, Infini began to plan its transformation since 1992. After the development for over a decade, in 2004, the company introduced the brand “INFINI”, expanded the market by the brand and design, and created product image with professionalism, high-quality and a strong sense of technology.

Among various products, “LUXO bike lamp” is the most eye-catching one. The appearance demonstrates the quality and design, and the functions include illumination, waterproof effect, and persistent light. Different from common bike lamps, which need to be assembled by tools, LUXO lamp can be installed and removed simply with one hand, and it can also be used as flashlight. After the introduction of LUXO lamp, the company received four international design awards (2005 G-Mark Award in Japan, 2006 iF Golden Award and the reddot Award in Germany and 2008 IDEA Award in U.S.). Infini gained profits of more than 100 million NTD in 2006.

Transformation from an OEM to Infini did not happen overnight. The company creates the differentiation by design in value activities, and increases value added by design. Under the threat of large-scale and low-cost industrial model in China, the company develops its own niche.

#### *B. Ten Drum Art Percussion Group*

Ten Drum Art Percussion Group is the first international art village under the theme of drumbeat music with the combination of drumbeats, recreation and natural ecology. It is the reuse of hundred-year Rende Sugar Refinery. Shi-bin Hsieh, one of the locals in Tainan, was enthusiastic with local art and culture, as well as drumbeat music, in Taiwan. He found the spacious and vacant Rende Sugar Refinery to be a suitable performance stage for drumbeat music. Thus, Shi-bin Hsieh established Ten Drum Percussion Group with the mission to “pass local drumbeat music and absorb the culture around the world”. Currently, the group has approximately 40 members, and the main incomes are from the tickets, restaurants and souvenirs as well as the instruction and performance. In average, there are 7000 visitors every month.

The village is both static and dynamic. In the Historic Museum and the World Drum Museum, the visitors can learn about the development of world drumbeat music culture and the history of the village. Three theatres of different sizes hold regular and festival drumbeat music performances, for Taiwan and foreign countries. In drum-making area and drumbeat classroom, the visitors can experience the making of drums and drumbeat music.

In addition, in order to promote drumbeat music, the village produced “Mu Lien Saved his Mother”, which is the first animation under the theme of “drum”, under cooperation with the animation company, and designed the cards of Eighteen Buddha to introduce drumbeat music. Ten Drum Art Percussion Group actively expands the external business

and reinforces the connection with student organizations in schools and communities. By various channels, it promotes and exchanges drumbeat music culture with them.

The main goal of Ten Drum Art Percussion Group is to create “the connection”. Upon the strategic alliance with cultural space such as Chi Mei Museum, Bao An Station, Tiger Farm and Furniture Manufacturing Museum, Rende Cultural Park is constructed and the banding cultural village becomes the new art landmark in southern Taiwan.

#### *C. PlayCoo Corporation*

PlayCoo Corporation, founded in November 2001, was the new spin-off company from Acer multimedia group. Its capital is 600 million NTD, and it has approximately 30 employees (average age of 27 years old). Since PlayCoo has been involved in multimedia and software in Acer Group, after the incorporation, the company was positioned as “the developer of professional games” and focused on the development of the games.

Female players are the subjects of Eden Moon Plus+ developed by PlayCoo. Through role-playing game (RPG), the players can create and control the virtual roles. The game emphasizes simple interface and ease of use. By raising and training the pets, the players accomplish the tasks and upgrade the levels. Since they can talk with or accompany other players in the adventure, the game creates a high degree of attachment, and easily develops network externality and creates the platform of profits.

#### *D. Tittot*

Tittot was founded in 1994. It was named by the world pronunciation of “ti-tou” (meaning crystal clear) in Chinese, and the company was well-known by its crystal glass in Taiwan and abroad. Chairman and General Manager Yung-Shan Wang has a background in finance. Under his leadership, the company gained a profit of 5.7 hundred million NTD in 2007, and the number of employees increased from 10 to 400. It is the first art and culture company listing in the stock exchange in Taiwan, and has 115 bases in the cities in Asia, Europe and U.S.

Lost wax casting of crystal glass is complicated. Some difficult products require years of works, and several times of attempts. In the development of the products, every part of the process, from prototype, molding, wax filling, dewaxing, form removal, sintering, grinding to polishing, demands high precision, as even a small error would result in the failure of the works. During the cooling process, the different thermal expansion coefficients of the thin and thick parts of the crystal glass may lead to cracks. Moreover, the complicated design, such as chamfering, hollow or delicate and winding lines, may cause defects in the products during the making process.

Tittot was able to overcome the technical difficulties and achieve mass production of crystal glass. By accumulating years of resources and capacity, the company introduces new

materials and themes to demonstrate the features of the brand and create new value.

#### IV. DISCUSSIONS AND CONCLUSIONS

Although the dimensions in CCI are broad, through the analysis of industrial characteristics and strategic theories, they can be categorized into four types of value creation: novelty, complementarity, network externality and scarcity. This study treats four enterprises in Taiwan as the case study to validate the propriety of the theory, including Infini in design industry, Ten Drum Percussion Group of performance art, PlayCoo Corporation of online game, and Tittot of product design industry.

This study finds that in the development of CCI, different countries adopt different definitions. Therefore, they have strategic consideration for industrial development regarding the definitions of industrial categories. Industrial categorization will influence their policies and resource distribution. However, as to the essence of different industries, planning the policies according to types or models of value creation in the industries will enhance the analysis of the suitable development mechanisms and investment strategies.

Analysis and validation of multiple cases are more convincing and the research outcomes will be more reliable [10]. Multiple cases can be treated as multiple experiments and the purpose is to reinforce the reappearance instead of following the logic of "sampling". More cases will lead to better validity [27]. However, this study only validates four value creation models by four representative cases and there will be errors in the analysis. Future studies should select multiple cases in each type of value creation in order to acquire more significant explained power.

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